Draft Decision on the Western Power Networks Business Unit Proposed Access Arrangement for the South West Interconnected Network

Submitted by Western Power Corporation

21 March 2006

Economic Regulation Authority
WESTERN AUSTRALIA

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Economic Regulation Authority website at www.era.wa.gov.au.

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DRAFT DECISION

1. On 24 August 2005, Western Power Corporation's Networks Business Unit (**Western Power**) submitted its proposed access arrangement, access arrangement information and technical rules for its regulated transmission and distribution networks (**South West Interconnected Network** or **SWIN**) in the South West interconnected system (**SWIS**) to the Economic Regulation Authority (**Authority**) for approval. The submission of a proposed access arrangement is required by section 4.1 of the *Electricity Networks Access Code 2004* (**Access Code**).

2. The Authority has considered the proposed access arrangement under the principles set out in the Access Code.

3. In accordance with section 4.12(b) of the Access Code, the draft decision of the Authority is to not approve the proposed access arrangement on the grounds that it does not satisfy the requirements of chapter 5 of the Access Code. The detailed reasons for this draft decision are set out in this document.

4. Under section 4.12(b) of the Access Code the Authority, when issuing a draft decision that does not approve a proposed access arrangement, must in its reasons provide details of the amendments that the Authority requires before it will approve the proposed access arrangement. For purposes of clarity, the required amendments are stated in the reasons for this draft decision at the point at which the relevant element of the access arrangement is considered.

5. The amendments required by the Authority are also listed below.

Summary of Required Amendments

Required Amendment 1

Western Power to amend clause 1.1 of its proposed access arrangement to reference only those portions of the SWIS it owns and operates and to define SWIS and SWIN.

Required Amendment 2

Western Power to amend clauses 1.7(c) and (d) of its proposed access arrangement to correctly list the placement of appendices.

Required Amendment 3

Western Power to identify its reference services so as to make clear specifically what services will be provided to customers. These reference services should be distinguished from Western Power's reference tariffs, albeit that there should be a reference tariff associated with each reference service.

Required Amendment 4

Western Power to propose standard access contracts for RT9 (Street lighting) and RT10 (Unmetered Supplies).

Required Amendment 5

Western Power to confirm its non-reference services and explain how they meet the Access Code requirements.

Required Amendment 6

Western Power to amend its transmission network benchmarks for circuit availability (per cent of total time) for each year of the access arrangement period to 98.74 per cent.

Required Amendment 7

Western Power to amend its transmission network benchmarks for systems minutes interrupted (all transmission network) for each year of the access arrangement period to 7.8 minutes per year.

Required Amendment 8

Western Power to amend its list of allowable exclusions:

- For circuit availability, do not include as an exclusion:
  - all zone substation equipment including power transformers; and
  - Tee configuration line circuits,
- For system minutes interrupted, do not include as an exclusion:
  - all transmission network radial connections; and
  - all zone substations connected to the transmission network via radial connections.

Required Amendment 9

Western Power to adopt as a minimum transmission network service standards of:

- transmission circuit availability,
- average outage duration,
- frequency of “off supply” events, and
- intra-regional constraints,

in accordance with the Australian Energy Regulator’s Compendium of Electricity Transmission Regulatory Guidelines, as at August 2005, for transmission network service standards. These performance measures are to be determined consistent with Schedule 1 – Definitions of Performance Measures, of the AER document. Intra-regional constraints are also to adopt reporting measures on the basis of the location, duration, frequency and time of day of the constraint.

Required Amendment 10

Western Power to apply the required service standards to all covered transmission network assets, meshed or radial, in the SWIS.

Required Amendment 11

Western Power to amend its proposed access arrangement to adopt the National Regulatory Reporting for Electricity Distribution and Retailing Businesses guidelines

and definitions and include the following minimum distribution service standard feeder types:

- CBD;
- Urban;
- Rural Short; and
- Rural Long feeders

for each year of the first access arrangement period, as defined in the guidelines.

Required Amendment 12

Western Power to amend its proposed access arrangement clause 3.13 and related clauses to adopt SWIS total SAIDI service standard benchmarks for the reference services RT1 to RT11 for the years ending 30 June 2007, 2008 and 2009 of 219, 206 and 194 SAIDI minutes per annum respectively.

Western Power to propose SAIDI service standard benchmarks for each of the CBD, Urban, Rural Short and Rural Long feeder classifications for each year of the first access arrangement period that are consistent with the SWIS total SAIDI service standard benchmarks.

Required Amendment 13

Western Power to propose SAIFI service standard benchmarks for each of the CBD, Urban, Rural Short and Rural Long feeders for each year of the first access arrangement period, commencing from the – SWIS total – value of 3.09 minutes from the Western Power 2004/05 annual report.

Required Amendment 14

Western Power to propose performance reporting on SAIDI, SAIFI, CAIDI and MAIFI for each of the CBD, Urban, Rural Short and Rural Long feeder classifications in the SWIS.

- The feeder type criteria to be defined and applied in accordance with the National Regulatory Reporting for Electricity Distribution and Retailing Businesses definitions.
- Permissible exclusions to be determined only in accordance with the Steering Committee on National Regulatory Reporting Requirements endorsed IEEE Standard 1366 application for the 2.5 Beta methodology for SAIDI, as proposed by Western Power, for each feeder type.
- “Raw” (unadjusted for exclusions) data to be collected as well as “adjusted” data which is net of allowable exclusions.
- The 2.5 Beta figure for each feeder type is to be separately reported as well as the SWIS Total 2.5 Beta figure.
- The nature of excluded events pursuant to the 2.5 Beta methodology to also be qualitatively described (e.g. environmental factors causing the excluded event).
- Include “Time to restore supply” statistics by feeder type for all unplanned outages.
- Include Worst Performing Feeder Program performance.

Required Amendment 15

For its Worst Performing Feeder Program Western Power to:

- explicitly identify the 20 worst metro, 10 worst north country and 10 worst south country feeders per its proposal for this program; and
- report the current service levels on each of the 40 worst feeders prior to commencement of the first access arrangement period.

Required Amendment 16

Western Power to revise its forecast transmission energy, having regard to the Independent Market Operator's submission "sent out energy forecasts" for the period 2006/07 to 2008/09 at the expected growth rates in accordance with Table 6 above.

Required Amendment 17

Western Power to revise its maximum demand forecasts.

Required Amendment 18

Western Power to revise its forecast distribution energy sales in light of the reduction in forecast sent out energy.

Required Amendment 19

Western Power to revise the reference tariffs applicable to the reference services to reflect the changes in transmission and distribution energy forecasts.

Required Amendment 20

Western Power to amend its determination of AARR (target revenue) in accordance with Equation 3 of this draft decision and adopt a revenue cap form of price control.

Required Amendment 21

Western Power to amend its "K factor" to be determined in accordance with the Authority's assessment in the annual Revenue Adjustment Mechanism. The K factor should explicitly link to approved total costs, compare target (forecast) and actual revenues and be symmetrical (in relation to over or under recoveries against target revenue) in its application.

Required Amendment 22

Western Power to revise the price control clauses of its access arrangement ensuring consistency throughout with the required amendments, methodology and nomenclature described in this draft decision.

Required Amendment 23

Western Power to revise its access arrangement to reflect total costs and target revenues in accordance with Table 11, Table 12, Table 13, Table 14, Table 15, Table 16, Table 17 and Table 18 of the draft decision.

Required Amendment 24

Western Power to confirm its allocation of AARR (target revenue) between reference and non-reference services.

Required Amendment 25

Western Power to confirm the role of the "X factor" in its revenue modelling and demonstrate that it provides a present value equivalent outcome if applied as a revenue smoothing mechanism.

Required Amendment 26

Western Power to delete from its access arrangement, access arrangement information and target revenue any revenue requirement due to a return on working capital for both its transmission and distribution networks.

Required Amendment 27

Western Power to amend its access arrangement Appendix 7, section 10 formula to determine in real terms the aggregate allowance proposed to be included at commencement of the next access arrangement period.

Required Amendment 28

Western Power to separately identify and substantiate in its access arrangement all relevant forecast capital and non-capital costs attributable to technical rules for the first access arrangement period.

Required Amendment 29

Western Power to amend its access arrangement Appendix 7, section 9 by specifying a formula for adjusting target revenue for technical rule changes in a manner that determines in real terms the aggregate allowance proposed to be included at commencement of the next access arrangement period.

Required Amendment 30

Western Power to apply the investment adjustment mechanism to transmission and distribution network new facilities investment.

Required Amendment 31

Western Power's forecast capital expenditure categories to be in accordance with the capital expenditure categories by asset class and expenditure type as detailed in the Capital Expenditure section of this draft decision.

Required Amendment 32

Western Power to include an investment adjustment mechanism that compares forecast capital expenditure categories against actual capital expenditure by asset class and expenditure type.

Required Amendment 33

Western Power to provide a methodology for accounting between actual and forecast investment adjustment mechanism differences in real terms.

Required Amendment 34

Western Power to propose a reliability driven capital expenditure incentive mechanism.

Required Amendment 35

Western Power to amend its proposed service standard adjustment mechanism to remove the incentive payments from the transmission network service standard adjustment mechanism.

Required Amendment 36

Western Power to amend its proposed service standard adjustment mechanism to remove the incentive payments from the distribution network service standard adjustment mechanism.

Required Amendment 37

Western Power to amend its access arrangement to adopt the major asset groupings, optimised deprival values as at 1 July 2006 and estimated remaining useful lives for all network, metering and non-network assets used to provide covered services in accordance with Table 11 of this draft decision.

Required Amendment 38

Western Power to remove historical accumulated capital contributions from the initial capital base in accordance with its section 51 response, as summarised at Table 22 and Table 23 of the Network Valuation section of this draft decision and make the necessary consequential amendments to its price control formulae.

Required Amendment 39

Western Power to adopt the asset groupings for its transmission and distribution network capital expenditure in accordance with Table 31 of this draft decision.

Required Amendment 40

Western Power to adopt the capital expenditure and capital contributions in accordance with its section 51 response, subject to reviewing and amending the capital expenditure and capital contribution components of the SUPP and RPIP projects in real terms.

Required Amendment 41

Western Power to present the capital expenditure and capital contribution costs by asset grouping in real terms.

Required Amendment 42

Western Power to present the capital expenditure and capital contribution costs by expenditure type in real terms.

Required Amendment 43

Western Power to confirm its proposed treatment of capital contributions occurring from the commencement of the initial access arrangement period.

Required Amendment 44

Western Power to include the transmission and distribution capital contribution figures provided in its section 51 response, as summarised at Table 26 and Table 28 of the Capital Expenditure section of this draft decision and adjusted to be presented in real terms.

Required Amendment 45

Western Power to include a capital contributions adjustment mechanism to account for any differences between forecast and actual capital contributions over the initial access arrangement period, consistent with the objectives and application of the investment adjustment mechanism.

Required Amendment 46

Western Power to amend its proposed access arrangement to be consistent with its section 51 response and to identify asset groupings and economic lives for depreciation purposes in a manner consistent with Table 31 of this Depreciation section of the draft decision.

Required Amendment 47

Western Power to confirm its adoption of straight line depreciation and any proposed accelerated depreciation, if applicable.

Required Amendment 48

Western Power to make consequential amendments to its proposed access arrangement to ensure there is no ambiguity in relation to which asset grouping applies to capital items.

Required Amendment 49

Western Power to remove the depreciation tax correction.

Required Amendment 50

Western Power to amend its proposed access arrangement to adopt the transmission network operations and maintenance expenditure, in real terms, by expenditure type, in accordance with Table 36 of this draft decision.

Required Amendment 51

Western Power to amend its proposed access arrangement to adopt the distribution network operations and maintenance expenditure, in real terms, by expenditure type, in accordance with Table 37 of this draft decision.

Required Amendment 52

Western Power to amend its proposed access arrangement to reflect a pre tax real weighted average cost of capital of 6.0 per cent.

Required Amendment 53

Western Power to demonstrate that the revised price lists and price list information meet the requirements under chapter 7 of the Access Code.

Required Amendment 54

Western Power to delete references in clauses 9.15 and 9.19 of the proposed access arrangement that require the Authority's approval of discounts.

Required Amendment 55

Western Power to specify prices for all reference services within the price list.

Required Amendment 56

Western Power to resubmit its proposed price list and submit price list information consistent with the requirements of chapter 8 of the Access Code.

Required Amendment 57

Western Power to clarify the purpose, effect and period of application of the loss factors specified in its tariff schedule relative to the Independent Market Operator's role.

Required Amendment 58

Western Power to confirm in its access arrangement the inclusion of the type, supply, installation and maintenance of meters applicable to reference services in accordance with the required amendments to Reference Services in this draft decision.

Required Amendment 59

Western Power to confirm in its access arrangement the meter reading type and frequency included in the reference services in accordance with the required amendments to the Reference Services and Standard Access Contract in this draft decision.

Required Amendment 60

Western Power to confirm in its access arrangement the treatment for meter upgrades in accordance with the required amendments to the Capital Contributions Policy in this draft decision.

Required Amendment 61

Western Power to confirm in its access arrangement the elements of metering charges in reference tariffs in accordance with the required amendments to Pricing Methods and Price Lists in this draft decision.

Required Amendment 62

Western Power to delete trigger events at clauses 8.1(a) and (b) of its proposed access arrangement.

Required Amendment 63

The Authority requires Western Power to amend clause 1.5 of its access arrangement to reflect a revisions submission date of 1 October 2008.

Required Amendment 64

Western Power to amend Electricity Transfer Access Contract clause 1.1 to delete the definitions of "Connection Contract" and "Interconnection Works Agreement".

Required Amendment 65

Western Power to amend Electricity Transfer Access Contract clause 1.1 by substituting the term "connection point" for "contracted point" in the definition of "contracted point" and consequential amendments should be made to the Electricity Transfer Access Contract in each place where the term "contracted point" is used.

Required Amendment 66

Western Power to amend the reference in Electricity Transfer Access Contract clause 2.2 (Option to extend Term), to Item 7 of Schedule 1 to refer to Item (v) of Part 2 of Schedule 1.

Required Amendment 67

Western Power to amend Electricity Transfer Access Contract clause 3.2 (User may select Services) by replacing the term ”Price Application Policy” with “Applications and Queuing Policy” where the earlier term appears.

Required Amendment 68

Western Power to delete Electricity Transfer Access Contract clause 3.4 (Use of Contracted Capacity) and replace it with Model Access Contract clauses A3.15 and A3.16 without material omission or variation.

Required Amendment 69

Western Power to delete Electricity Transfer Access Contract clause 3.6 (Increase of Contracted Capacity) and reproduce the procedure for a variation in user capacity in Model Access Contract clauses A3.15 to A3.17 without material omission or variation.

Required Amendment 70

Western Power to delete Electricity Transfer Access Contract clause 3.7 (Start Date of new Services).

Required Amendment 71

Western Power to delete Electricity Transfer Access Contract clause 3.8 (Contribution of Capacity increase or new Contracted Point).

Required Amendment 72

Western Power to delete Electricity Transfer Access Contract clause 3.9 (Decrease of Contracted Capacity) and substitute provisions which reproduce Model Access Contract clauses A3.15 & A3.16 without material omission or variation.

Required Amendment 73

Western Power to amend the Electricity Transfer Access Contract by reproducing Model Access Contract clauses A3.19 to A3.24 (Relocation) without material omission or variation.

Required Amendment 74

Western Power to amend Electricity Transfer Access Contract clause 1.1 to include a definition of “relocation” which reproduces the definition of that term in the Model Access Contract without material omission or variation.

Required Amendment 75

Western Power to amend Electricity Transfer Access Contract clause 3.10 (Deletion of a Contracted Point) to confine its operation to the deletion of a connection point by reason of the permanent disconnection of Facilities and Equipment.

Required Amendment 76

Western Power to delete Electricity Transfer Access Contract clause 3.11 (Payment on decrease of Contracted Capacity).

Required Amendment 77

Western Power to amend Electricity Transfer Access Contract clause 6.1 (User must nominate Controller) to reproduce Model Access Contract clause A3.36(a) without material omission or variation and Electricity Transfer Access Contract clause 6.1 to be amended to specify a reasonable test for when an exit point needs a designated controller.

Required Amendment 78

Western Power to amend Electricity Transfer Access Contract clause 6.2(a) (Where the User is not the Controller) to delete the word “unconditionally”.

Required Amendment 79

Western Power to amend Electricity Transfer Access Contract clause 6.2(b) (User must satisfy service provider of its arrangements with designated controller) to reproduce Model Access Contract clause A3.39(a) without material omission or variation.

Required Amendment 80

Western Power to amend Electricity Transfer Access Contract clause 6.2(c) (Curtailment where Western Power is not satisfied of compliance by controller) to reproduce Model Access Contract clause A3.39(b) without material omission or variation.

Required Amendment 81

Western Power to amend Electricity Transfer Access Contract clause 7.1 (Tariffs) to include provisions which reproduce Option B in Model Access Contract clause A3.40 without material omission or variation.

Required Amendment 82

Western Power to amend Electricity Transfer Access Contract clause 7.1 (Recovery of tariff reduction as an overpayment) to include provisions which reproduce Option A in Model Access Contract clause A3.40(b)(ii) without material omission or variation.

Required Amendment 83

Western Power to delete Electricity Transfer Access Contract clause 7.1(b) (Indexation of tariffs determined under ETAC) and consequential amendments to be made to Electricity Transfer Access Contract clause 7.1(e).

Required Amendment 84

Western Power to delete Electricity Transfer Access Contract clause 7.2(b) (Charges).

Required Amendment 85

Western Power to amend Electricity Transfer Access Contract clause 7.3 (Charges during Western Power’s Force Majeure Event) to reproduce Model Access Contract clause A3.42(a) without material omission or variation.

Required Amendment 86

Western Power to amend Electricity Transfer Access Contract clause 7.3(a)(ii) (Charges during Western Power's Force Majeure Event) to delete the word "solely".

Required Amendment 87

Western Power to delete Electricity Transfer Access Contract clause 7.3(b) (User contribution to force majeure event).

Required Amendment 88

Western Power to amend Electricity Transfer Access Contract clause 9(a) (Security for Charges and Contributions) to reproduce Model Access Contract clause A3.51(a) without material omission or variation.

Required Amendment 89

Western Power to amend Electricity Transfer Access Contract clause 9(a)(iii) (Interest on security by way of pre-payment) to reproduce Model Access Contract clause A3.51(a)(i) without material omission or variation

Required Amendment 90

Western Power to amend Electricity Transfer Access Contract clause 9(b) (Security for capital contributions) to reproduce Model Access Contract clause A3.51(b) without material omission or variation.

Required Amendment 91

Western Power to amend the Electricity Transfer Access Contract to reproduce Model Access Contract clause A3.52 and A3.53 (Alternative security arrangements) without material omission or variation.

Required Amendment 92

Western Power to delete Electricity Transfer Access Contract clause 11.2 (User to bear costs of technical rule compliance).

Required Amendment 93

Western Power to amend Electricity Transfer Access Contract clause 12 (Technical characteristics of Facilities and Equipment) to delete the requirement in clause 12(b) for a user to make application under the applications and queuing policy before modifying facilities and equipment.

Required Amendment 94

Western Power to delete Electricity Transfer Access Contract clause 15.2 (If User does not comply with directions from System Operator).

Required Amendment 95

Western Power to amend the Electricity Transfer Access Contract to include provisions which reproduce Model Access Contract clauses A3.62 and A3.63 (Actions of third parties causing user to breach technical rules) without material omission or variation.

Required Amendment 96

Western Power to amend the Electricity Transfer Access Contract to include a provision which reproduces Model Access Contract clause A3.67 (Service provider must comply with service standards) and Schedule 2 without material omission or variation.

Required Amendment 97

Western Power to amend the Electricity Transfer Access Contract to include provisions that reproduce Model Access Contract Recital (d) and clause A3.69 (Indemnifier's representation and warranty) without material omission or variation.

Required Amendment 98

Western Power to amend Electricity Transfer Access Contract clause 18.5 (Limitation of liability) to reproduce Model Access Contract clause A3.74 without material omission or variation such that the value of "x" is left to be inserted in the access contract by agreement between the parties or arbitrated award.

Required Amendment 99

Western Power to delete Electricity Transfer Access Contract clause 18.7 (Extension of indemnity to personnel of a Party).

Required Amendment 100

Western Power to delete Electricity Transfer Access Contract clause 18.11 (Insurances are primary).

Required Amendment 101

Western Power to amend Electricity Transfer Access Contract clause 18.12 (Recoveries under Insurance) by deleting the words "or may be liable".

Required Amendment 102

Western Power to delete Electricity Transfer Access Contract clause 19.1 (Personal injury to Western Power's Personnel or User's Personnel) and the reference to Electricity Transfer Access Contract clause 19.1 in Electricity Transfer Access Contract clause 19.2.

Required Amendment 103

Western Power to delete Electricity Transfer Access Contract clauses 22.1, 22.2, 22.4 and 22.5 (Precedence of codes and policies).

Required Amendment 104

Western Power to amend Electricity Transfer Access Contract clause 24.1(b) (Curtailment for unplanned system maintenance) to delete the word "or" after the words "necessary to do so" in the second line.

Required Amendment 105

Western Power to amend Electricity Transfer Access Contract clause 24.1(c) (Curtailment in the event of a breakdown) to delete the words "or any other" appearing before the words "Contracted Point" in the second line.

Required Amendment 106

Western Power to amend Electricity Transfer Access Contract clause 24.3 (Notification of curtailment) to reproduce Model Access Contract clause A3.29 without material omission or variation.

Required Amendment 107

Western Power to delete Electricity Transfer Access Contract clause 25 and Schedule 4 (Augmentations & capital contributions) and to substitute provisions which reproduce Model Access Contract clause A3.43 and Schedule 5 without material omission or variation.

Required Amendment 108

Western Power to amend Electricity Transfer Access Contract clause 30.1 (User may make Bare Transfer) by deleting the words “acting as a Reasonable and Prudent Person” in the first line.

Required Amendment 109

Western Power to amend Electricity Transfer Access Contract clause 33 (Ringfencing) by deleting the words “the User or an Indemnifying Party” in the first line.

Required Amendment 110

Western Power to amend Electricity Transfer Access Contract clause 36.11 (Authorised officers) to reproduce Model Access Contract clause A3.135 without material omission or variation.

Required Amendment 111

Western Power to amend the Electricity Transfer Access Contract to include Schedule 4 (Tariffs) of the Model Access Contract completed so as to set out the tariffs payable for reference services under the Electricity Transfer Access Contract.

Required Amendment 112

Western Power to remove the Connection Access Contract from the proposed access arrangement.

Required Amendment 113

Western Power to remove the Interconnection Works Agreement from the proposed access arrangement.

Required Amendment 114

Western Power to amend the proposed applications and queuing policy to reproduce model applications and queuing policy clause A2.4 (Applications to be made in good faith) without material omission or variation.

Required Amendment 115

Western Power to delete proposed applications and queuing policy clause 1.5 (Application of the policy).

Required Amendment 116

Western Power to delete proposed applications and queuing policy clause 1.6 (Types of covered service).

Required Amendment 117

Western Power to delete proposed applications and queuing policy clause 2.1 (One contract per contracted point).

Required Amendment 118

Western Power to delete proposed applications and queuing policy clause 2.2 (Must be a wholesale market participant to transfer electricity).

Required Amendment 119

Western Power to delete proposed applications and queuing policy clause 2.3(b) (Requested capacity must match actual requirement).

Required Amendment 120

Western Power to delete proposed applications and queuing policy clause 2.4 (Applying for a new connection).

Required Amendment 121

Western Power to amend proposed applications and queuing policy clause 3.2(a) (Class 1 application) to reproduce model applications and queuing policy clause A2.5(a) without material omission or variation.

Required Amendment 122

Western Power to amend proposed applications and queuing policy clause 3.5 (Misclassification of an application) to reproduce model AQP clause A2.8 without material omission or variation.

Required Amendment 123

Western Power to delete proposed applications and queuing policy clause 4.2 (Western Power may require costs).

Required Amendment 124

Western Power to amend proposed applications and queuing policy clause 6.1 (Class 1 and 2 application costs) to reproduce model applications and queuing policy clause A2.13 without material omission or variation.

Required Amendment 125

Western Power to amend proposed applications and queuing policy clause 7.1 (Commencing the application process) to reproduce model applications and queuing policy clause A2.21 without material omission or variation.

Required Amendment 126

Western Power to amend proposed AQP clause 7.2(c) (Information required with the application for each requested contracted point) by:

- replacing the reference to a unique market identifier in clause 7.2(c)(ii) to a reference to a national market identifier;
- deleting clauses 7.2(c)(iv) and (v); and
- amending clause 7.2(c)(vi) to reproduce model AQP clause A22(g)(ii),

without material omission or variation

Required Amendment 127

Western Power to amend proposed applications and queuing policy clause 7.2(d) (Information required with each application where works may be required to provide the requested covered service) to:

- reproduce model applications and queuing policy clause 2.22(h) without material omission or variation; and
- delete Proposed AQP clause 7.2(d)(ii)

Required Amendment 128

Western Power to amend proposed applications and queuing policy clause 7.4(c) (Errors or omissions in an application) to specify a reasonable timeframe.

Required Amendment 129

Western Power to delete proposed applications and queuing policy clause 8.4(d) (When bypass is permitted).

Required Amendment 130

Western Power to amend proposed applications and queuing policy clause 8.9 (Applications in relation to tender projects etc) to reproduce model applications and queuing policy clauses A2.56 to A2.62 without material omission or variation.

Required Amendment 131

Western Power to amend proposed applications and queuing policy clause 9.2 (Amending application to address necessary augmentation) to reproduce model applications and queuing policy clause A2.72 without material omission or variation.

Required Amendment 132

Western Power to delete proposed applications and queuing policy clauses 10.2(b) and (c) (Existing access contracts and determination of spare capacity).

Required Amendment 133

Western Power to amend proposed applications and queuing policy clause 11.2(a)(ii) (Timing of initial response) to be completed consistent with the instructions in Note 15 in the model applications and queuing policy.

Required Amendment 134

Western Power to delete proposed applications and queuing policy clause 13.2 (Constituent parts of the access offer).

Required Amendment 135

Western Power to amend proposed applications and queuing policy clauses 14.4 to 14.6 (Conditions precedent and determination of spare capacity) to reproduce model applications and queuing policy clauses A2.84(b) and A2.85 without material omission or variation.

Required Amendment 136

Western Power to amend proposed applications and queuing policy clause 14.8(a) (Security) to reproduce model applications and queuing policy clause A2.86(a) without material omission or variation and by deleting proposed applications and queuing policy clause 14.8(b).

Required Amendment 137

Western Power to delete proposed applications and queuing policy clause 14.9 (Payments due under capital contributions policy).

Required Amendment 138

Western Power to amend proposed applications and queuing policy clause 14.10 (If application requests reference service) to reproduce model applications and queuing policy clause A2.103 without material omission or variation.

Required Amendment 139

Western Power to delete proposed applications and queuing policy clause 14.11 (If application requests a connection service).

Required Amendment 140

Western Power to amend proposed applications and queuing policy clause 14.12 (If application requests non-reference service) to delete:

- the words in the preamble “other than a connection service”; and
- the words in clause 14.12(c) “and negotiated in good faith by the applicant and Western Power during the processing of the application”.

Required Amendment 141

Western Power to delete proposed applications and queuing policy clause 14.13 (If application triggers works).

Required Amendment 142

Western Power to amend proposed applications and queuing policy clause 15.3 (If applicant rejects access offer) to reproduce model applications and queuing policy clause A2.109 without material omission or variation.

Required Amendment 143

Western Power to amend proposed applications and queuing policy clause 15.4 (Dormant access offers) to reproduce model applications and queuing policy clause A2.78 without material omission or variation.

Required Amendment 144

Western Power to amend proposed applications and queuing policy to reproduce model applications and queuing policy clause A2.43 (Customer transfer requests) without material omission or variation.

Required Amendment 145

Western Power to amend proposed applications and queuing policy to reproduce model applications and queuing policy clause A2.75 (Material variations to amended application) without material omission or variation.

Required Amendment 146

Western Power to amend proposed applications and queuing policy to reproduce model applications and queuing policy clause A2.87 (Alternative security) without material omission or variation.

Required Amendment 147

Western Power to amend proposed applications and queuing policy to reproduce model applications and queuing policy clauses A2.93 to A2.95 (Preliminary assessment) without material omission or variation.

Required Amendment 148

Western Power to amend proposed applications and queuing policy clause 11.1 to reproduce model applications and queuing policy clause A2.89(b)(i) (Preliminary assessment) without material omission or variation.

Required Amendment 149

Western Power to amend the proposed applications and queuing policy to reproduce model applications and queuing policy clause A2.98 (Preliminary assessment) without material omission or variation.

Required Amendment 150

Western Power to amend proposed applications and queuing policy to reproduce the model applications and queuing policy clause A2.104 (Terms of access offer) without material omission or variation.

Required Amendment 151

Western Power to amend the definition of “access offer” in proposed applications and queuing policy clause 2.1 to reproduce the definition of that term in model applications and queuing policy clause 1.1 without material omission or variation.

Required Amendment 152

Western Power to amend the definition of “capacity” in proposed applications and queuing policy clause 1.1 to correct a typographical error by amending the word “thought” to “through” in the second line.

Required Amendment 153

Western Power to delete the definition of “connection contract” in proposed applications and queuing policy clause 1.1.

Required Amendment 154

Western Power to amend proposed applications and queuing policy by replacing all references to “contracted point” with “connection point” and reproducing model applications and queuing policy definition of “connection point” without material omission or variation.

Required Amendment 155

Western Power to amend proposed applications and queuing policy definition of “dormant application” to reproduce the definition of that term in the model applications and queuing policy without material omission or variation.

Required Amendment 156

Western Power to delete the definition of “interconnection works agreement” in proposed applications and queuing policy clause 1.1.

Required Amendment 157

Western Power to amend proposed capital contributions policy clause 2.1 (Application of Proposed Capital Contributions Policy) to reproduce model capital contributions policy clause A4.4 without material omission or variation.

Required Amendment 158

Western Power to delete proposed capital contributions policy clause 2.2 (Application of particular clauses).

Required Amendment 159

Western Power to amend proposed capital contributions policy clause 3 (Lowest sustainable cost) to apply to a “capital contribution” rather than the “forecast cost of works”.

Required Amendment 160

Western Power to amend proposed capital contributions policy clause 4.1 (Applicant must make contribution) to reproduce model capital contributions policy clause A4.8 without material omission or variation.

Required Amendment 161

Western Power to delete proposed capital contributions policy clause 4.2 (Applicant may provide security for new revenue).

Required Amendment 162

Western Power to delete proposed capital contributions policy clause 5.4(a)(iii) (Amount of forecast costs).

Required Amendment 163

Western Power to amend proposed capital contributions policy clauses 5.4(b), (c) and (e) (Amount of forecast costs) to remove discretionary elements.

Required Amendment 164

Western Power to delete proposed capital contributions policy clause 5.5 (Connection assets).

Required Amendment 165

Western Power to amend proposed capital contributions policy clause 5.6 (Non-capital costs) to be replaced with model capital contributions policy clauses A4.16-A4.19 without material omission or variation.

Required Amendment 166

Western Power to delete proposed capital contributions policy clause 5.7 (Works over and above standard works).

Required Amendment 167

Western Power to amend proposed capital contributions policy clause 6.1 (Options for payment) to reproduce model capital contributions policy clause A4.11 without material variation or omission.

Required Amendment 168

Western Power to amend proposed capital contributions policy clause 6.2 (When applicant may choose periodic payment) by reproducing model capital contributions policy clause A4.12 without material omission or variation, and propose a materiality threshold which would provide periodic payment options to a substantial number of those contributing.

Required Amendment 169

Western Power to amend proposed capital contributions policy to allow clauses 6.3(a)(ii) and 6.3(a)(iii) (Terms and amount of periodic payment) to be left for negotiation between the parties.

Required Amendment 170

Western Power to amend proposed capital contributions policy clause 7 (Rebates and recoupment) by reproducing model capital contributions policy clauses A4.15(a) and (b) without material omission or variation, leaving the variables for negotiation between the parties.

Required Amendment 171

Western Power to amend proposed capital contributions policy clause 7 to apply rebates and recoupment to the current owner, rather than the original owner.

Required Amendment 172

Western Power to propose a rebate and recoupment provision to address the variances between forecast and actual cost of augmentation within its capital contributions policy.

Required Amendment 173

Western Power to delete proposed capital contributions policy clause 8 (Reduced demand payment).

Required Amendment 174

Western Power to delete proposed capital contributions policy clause 9 (Transmission-connected generators).

Required Amendment 175

Western Power to delete proposed capital contributions policy clause 10 (Consumers consuming less than 50 MWh per year).

Required Amendment 176

Western Power to delete proposed capital contributions policy clause 11 (Subdivisions).

Required Amendment 177

Western Power to amend proposed capital contributions policy to reproduce model capital contributions policy clause A4.13 (Provision of capital contribution in kind) without material omission or variation.

Required Amendment 178

Western Power to amend proposed capital contributions policy to reproduce model capital contributions policy clause A4.20 (Manner of contribution) without material omission or variation.

Required Amendment 179

Western Power to amend proposed capital contributions policy to reproduce model capital contributions policy clause A4.21 (Manner of contribution) without material omission or variation.

Required Amendment 180

Western Power to delete the definition of “capacity” from its proposed capital contributions policy.

Required Amendment 181

Western Power to delete the definition of “contracted point” from its proposed capital contributions policy.

Required Amendment 182

Western Power to delete the definition of “cost recovery period” from its proposed capital contributions policy.

Required Amendment 183

Western Power to delete the definition of “forecast costs” from its proposed capital contributions policy.

Required Amendment 184

Western Power to delete the definition of “interconnection works agreement” from its proposed capital contributions policy.

Required Amendment 185

Western Power to amend the proposed capital contributions policy to include the model capital contributions policy definition of “non-capital contribution” without material variation or omission.

Required Amendment 186

Western Power to amend the proposed capital contributions policy to include the model capital contributions policy definition of “payment contract” without material variation or omission.

Required Amendment 187

Western Power to amend the proposed capital contributions policy to include the model capital contributions policy definition of “provision in-kind” without material variation or omission.

Required Amendment 188

Western Power to delete the definition of “reduced demand payment” from its proposed capital contributions policy.

Required Amendment 189

Western Power to delete the definition of “transmission asset” from its proposed capital contributions policy.

Required Amendment 190

Western Power to delete the definition of “urban shared network” from its proposed capital contributions policy.

Required Amendment 191

Western Power to make consequential amendments to the transfer and relocation policy resulting from the Authority’s required amendments to the electricity transfer access contract.

Required Amendment 192

Western Power to amend proposed clause 4.1 of the transfer and relocation policy to remove the requirement for a user to operate as a “reasonable and prudent person” when effecting a bare transfer.

Required Amendment 193

Western Power to delete proposed clauses 4.4, 5.1(b)(ii), 5.3, 5.4(a) and 6.2 from its transfer and relocation policy.

INTRODUCTION AND OVERVIEW

Background

6. In order to facilitate greater competition in the electricity supply industry, the Minister for Energy established the Access Code, which came into effect on 30 November 2004. The Access Code establishes a framework for third party access to covered[1] electricity transmission and distribution networks in Western Australia and seeks to promote economically efficient investment in, and use of, electricity networks to promote competition in upstream and downstream markets.

7. Amongst other things, the Access Code imposes an obligation on a service provider to submit a proposed access arrangement, access arrangement information and technical rules for its covered networks for assessment and approval by the Authority.

8. The purpose of this draft decision is to satisfy the requirements of section 4.27 of the Access Code by setting out the Authority's reasons regarding the proposed access arrangement for the SWIN (the covered network within the SWIS) submitted on 24 August 2005 by Western Power.

9. Western Power's proposed access arrangement, access arrangement information and technical rules were published on 31 August 2005 on the Authority's website: www.era.wa.gov.au/electricity/proposedAccessArrangement.cfm.

10. On 31 August 2005 the Authority published a notice inviting submissions from interested parties on Western Power's proposed access arrangement and access arrangement information.

11. On 16 September 2005 the Authority released an issues paper to facilitate public comment on Western Power's proposals.

12. Following several requests from interested parties for additional time to make a submission the Authority issued a notice on 4 October 2005 advising of an extension of time for submissions until 3 November 2005.

13. The Authority received a request for a further extension of time and issued a notice on 2 November 2005 advising of an extension of time for submissions until 10 November 2005.

14. On 9 November 2005 the Authority issued Western Power with a notice under section 51 of the *Economic Regulation Authority Act 2003* (**ERA Act**) requiring the giving of certain documents and information. On the same day, the Authority published a notice suspending the operation of the deadline for the issue of the draft decision, as allowed under section 4.68(a) of the Access Code.

15. On 2 December 2005 the Authority published a notice advising that the suspension was ended on that date, and the draft decision would be published within

[1] The coverage process is described in subchapter 3.3 of the Access Code.

42 business days, by 6 February 2006, as required by section 4.13 of the Access Code.

16. On 30 January 2006 the Authority published a notice extending by 25 business days – to 14 March 2006 – the deadline for the making of the draft decision.

17. On 10 March 2006 the Authority published a further notice extending by 10 business days – to 28 March 2006 – the deadline for the making of the draft decision.

Purpose and Structure

18. Western Power's proposed access arrangement is required to comply with chapter 5 of the Access Code. This draft decision is structured to address each required inclusion in an access arrangement in turn.

19. Certain terms used in this draft decision are defined in the Access Code. The Authority has not adopted the method of italicising defined terms, noting that section 1.5(d) of the Access Code acknowledges that defined terms are not limited to italicised terms only. Therefore, to avoid confusion, the terms used throughout this draft decision are to be read in the context of the Access Code, with the definitions under section 1.3 of the Access Code applying.

20. This draft decision is structured in two parts:

- part A assesses all required elements of an access arrangement, with the exception of proposed contracts and policies; and
- part B contains the Authority's assessment of the proposed standard access contract and policies (capital contributions policy, applications and queuing policy and transfer and relocation policy).

21. This draft decision makes reference to a number of appendices and additional documents produced to assist interested parties. These are:

Appendix 1	Glossary
Appendix 2	References
Appendix 3	Consultancy report prepared for the Authority
Appendix 4	Map of Western Australian Electricity Supply Network
Appendix 5	Authority's Revenue Model

22. The consultancy report referred to above, as well as those published in connection with the Authority's issues paper, are available from the Authority's website at http://www.era.wa.gov.au/electricity/consultationPapers.cfm.

Overview

23. This section provides an overview of Western Power's covered network and outlines the Authority's assessment process for the proposed access arrangement and the related timelines in accordance with the Access Code requirements.

Description of the Access Code

24. The Access Code provides the framework within which the Authority, service providers and interested parties must operate in relation to network access matters.

25. The objective of the Access Code is detailed in section 2.1 of the Access Code:

> The objective of this Code ("**Code objective**") is to promote the economically efficient:
>
> 1) investment in; and
>
> 2) operation of and use of,
>
> networks and services of networks in Western Australia in order to promote competition in markets upstream and downstream of the networks.

26. The Authority must have regard to the Code objective when performing a function under the Access Code.

27. The Access Code imposes an obligation upon the owner of a covered network to submit an access arrangement, access arrangement information and technical rules to the Authority for assessment and approval.

28. An access arrangement is required to deal with all the matters listed in chapter 5 of the Access Code and the Authority's approval process is prescribed in chapter 4. The Authority must have regard to the views of interested parties and the owner of the network in making its decisions.

29. Amendments to the Access Code were gazetted on 8 November 2005. Principal changes to the Access Code were in relation to the inclusion of Tariff Equalisation Fund provisions[2] and the deletion of a reference to the inclusion of capital contributions in the capital base.[3]

Description of Western Power's South West Interconnected Network

30. Western Power is the major electricity supplier in the State. It was established as a vertically integrated State owned corporation on 1 January 1995 under the *Electricity Corporation Act 1994* following the disaggregation of the State Energy Commission of Western Australia into separate electricity and gas businesses.

31. During 2004, Western Power created four operational units – generation, networks, retail and regional – as separate Strengthened Business Units (**SBU**). The Authority was also advised that Western Power was establishing transparent and

[2] WA Government Gazette 207/2005, insertion of Access Code sections 6.37A and 7.12.

[3] WA Government Gazette 207/2005, deletion of Access Code section 6.56.

commercially based contractual arrangements between the SBUs so that they will increasingly operate independently.

32. The *Electricity Corporations Act 2005* was assented to on 13 October 2005. The *Electricity Corporations Act 2005* makes provision for the disaggregation of Western Power into separate corporate entities based on the SBUs established in 2004. It is understood that the disaggregation will take effect from April 2006, with the Electricity Networks Corporation – Western Power – to be the corporate entity responsible for the operation of the SWIN.

South West Interconnected System

33. Western Power's principal area of operation is in the SWIS, which extends from Perth to Kalbarri in the north, Kalgoorlie in the east and Albany in the south.

34. Appendix 4 of this draft decision contains a map of the area serviced by the SWIS.

35. Generation in the SWIS is mainly provided by:

- four coal-fired power stations (Collie, Muja, Kwinana and Worsley); and
- eleven gas-fired power stations (Alcoa Kwinana, Alcoa Pinjarra, Alcoa Wagerup, Kwinana, Mission Energy, Cockburn, Mungarra, Parkeston, Pinjar, South West Co-generation Joint Venture and Southern Cross Energy).

36. The installed capacity in the SWIS is approximately 4,158 MW. Over the past four years, energy consumption in the SWIS has grown on average by 2.7 per cent per annum. The Independent Market Operator (**IMO**), in its 2005 Statement Of Opportunities, forecasts that energy sent out will grow at an annual rate of 2.5 per cent in the expected growth rate scenario and at 3.5 per cent and 1.7 per cent in the high and low cases respectively. These figures are less than the growth rates for annual peak demand and indicate that the system peaks are becoming more significant over time. This is consistent with the increasing proportion of maximum demand being driven by air-conditioning loads. As a result all forecasts of capacity requirements are based on the maximum demand criterion.[4]

37. There are also a small number of other privately owned generators and transmission and distribution lines in the SWIS, which mainly service mining and mineral processing operations.

South West Interconnected Network

38. The SWIN is the largest and most significant interconnected system in Western Australia in terms of its geographical span, the amount of electricity it transmits and distributes and the number of users and end consumers. It contains more than 140 major substations, 6,000 km of transmission lines (66 kV and greater) and over 64,000 km of high voltage distribution lines (33 kV and lower).

39. The SWIN is owned and operated by Western Power, and interconnected with other networks and generators in the SWIS.

[4] IMO (2005a), pages 35 and 40.

40. The Authority understands that the SWIN is interconnected with two other networks:[5]

- a 132 kV transmission network owned by Southern Cross Energy, which runs between Boulder and Kambalda; and
- a 900 metre transmission line owned by International Power Mitsui LLP at Kwinana.

41. Western Power has provided a description of its covered network in its access arrangement information.[6]

Description of Assessment Process and Timelines

42. This draft decision is designed to provide the service provider, users and applicants with the assessment by the Authority of Western Power's proposed access arrangement. It also provides direction and guidance for the service provider on what elements of the proposed access arrangement and access arrangement information must be amended in order for it to satisfy the Access Code requirements and be approved.

43. As required under section 4.27 of the Access Code, this draft decision provides the detailed reasoning and assessment undertaken by the Authority, thereby providing the service provider, users and applicants with the information necessary to understand the assessment and required amendments.

44. Importantly, the Authority must comply with section 4.28 of the Access Code, which states that the Authority must approve a proposed access arrangement where it is considered to meet the Code objective and the requirements of chapter 5 (and chapter 9 if applicable). Alternately, should the Authority consider that a proposed access arrangement does not satisfy these requirements then it must not be approved. Section 4.28(b) of the Access Code requires the Authority to approve a proposed access arrangement which is consistent with the Code objective and the Access Code requirements even if it believes another form might better achieve or satisfy those requirements.

45. Section 4.29 of the Access Code guides the Authority on the assessment of an access arrangement, specifying the approval process for the elements listed under section 5.1 of the Access Code and how the Authority must deal with elements not listed under that section.

46. Sections 4.30 to 4.32 of the Access Code list some of the factors to which the Authority must have regard and places limitations upon the Authority in conducting its regulatory role. In making its draft decision and amongst other things, the Authority has had regard to each of:

- the geographical location of the network and the extent to which the network is interconnected to other networks;
- contractual obligations of the service provider or other persons already using the network;

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[5] Which satisfy the definition of "network infrastructure facilities" in the *Electricity Industry Act 2004*.

[6] Access arrangement information, Part A, page 26.

- the operational and technical requirements necessary for the safe and reliable operation of the network; and
- where relevant, written laws and statutory instruments.

47. This draft decision addresses sections 4.34 and 4.35 of the Access Code, which requires the Authority to recognise certain prior contractual rights.

48. Section 4.33 of the Access Code imposes certain obligations on the Authority should it choose to not approve or require amendments to the price control or pricing methods. The Authority addresses these requirements, as discussed in more detail in the sections on Price Control and Pricing Methods. Additionally, the section on Price Lists articulates the Authority's requirements under section 4.36 of the Access Code.

49. Chapter 4 sets out the general process for review, approval and public consultation as well as the time within which the process must be undertaken. Amongst other things, chapter 4 requires the Authority to:

- invite a first round of public submissions;
- publish a draft decision;
- invite a second round of public submissions;
- publish a final decision; and
- if necessary, publish a further final decision (final approval).

50. The assessment process and relevant timelines are set out in sections 4.11 to 4.25 of the Access Code and are summarised in Table 1 below.

51. The Authority cannot extend any deadline under sections 4.64 to 4.67 of the Access Code without being satisfied that a longer period of time is essential for all matters to be considered, or the satisfactory performance of the relevant obligations, and provided that the relevant party has taken all reasonable steps to fully utilise the times and processes set out in chapter 4 of the Access Code.

52. The deadlines set out in Table 1 below may be suspended when the Authority exercises its powers to obtain information and documents under section 51 of the ERA Act, or when judicial proceedings commence which relate to the Authority's assessment of the proposed access arrangement.

53. Following publication of this draft decision the Authority will commence the 20 business day public consultation process, during which a public forum will be held.

54. Following the conclusion of the public consultation process on the draft decision, the Authority will consider all submissions received and prepare and publish a final decision.

Table 1 Assessment Process and Timelines

Assessment Stage	Section of Access Code	Deadlines (Business Days)	Extensions permitted under section 4.66 (Business Days)	Extensions permitted under section 4.67 (Business Days)
Invitation for Submissions	4.9	5 days after proposed access arrangement is submitted	5 days (published 31 Aug 05)	
Issues Paper (optional)	4.10	20 days after invitation for submissions	20 days (published 16 Sept 05)	
1st Round Public Submissions	4.11	The later of 30 days after the invitation for submissions or 10 days after the publication of the Issues Paper	30 days and 10 days respectively (submissions deadline extended to 10 Nov 05)	
Publication of Draft Decision	4.13	42 days after the due date for submissions under 4.11	42 days (published 21 March 06)	10 days
2nd Round Public Submissions	4.15	20 days after the invitation for submissions on the draft decision	20 days	
Publication of Final Decision	4.18	30 days after the due date for submissions under 4.15	30 days	10 days
Submission of amended access arrangement	4.19	The Service Provider may submit an amended access arrangement within 20 days after a final decision (to not approve) is published	20 days	
Publication of Final Approval	4.22	If the Authority's decision is to not approve the access arrangement, 15 days after an amended access arrangement is submitted or otherwise within 25 days after the final decision is published	15 days and 25 days respectively	
Publication of Authority's own access arrangement	4.25	If the Authority is required to draft its own access arrangement, 20 days after a final approval is published	20 days	

REASONS FOR THE DRAFT DECISION

PART A

Requirements of a Proposed Access Arrangement

55. Chapter 4 of the Access Code prescribes the access arrangement approval and review process. Pursuant to section 4.27 of the Access Code this section of the draft decision addresses the Access Code requirements, Western Power's proposal, interested party submissions and the Authority's considerations and reasons underpinning the required amendments to Western Power's proposed access arrangement.

56. Chapter 5 of the Access Code prescribes the required content of an access arrangement. Section 5.1 specifies that an access arrangement must include:

- one or more reference services;
- a standard access contract for each reference service;
- service standard benchmarks for each reference service;
- price control;
- pricing methods;
- a current price list and a description of the pricing years for the access arrangement;
- an applications and queuing policy;
- a capital contributions policy;
- a transfer and relocation policy;
- if required, efficiency and innovation benchmarks;
- provisions dealing with supplementary matters; and
- provisions dealing with:
  - the submission of proposed revisions; and
  - trigger events.

57. These matters are discussed in accordance with the provisions contained within chapters 5 to 9 of the Access Code.

Western Power's Proposed Access Arrangement – Introduction and Definitions

Access Code Requirements

58. The Access Code does not specify the requirements of introductory elements[7] of an access arrangement. However, the general requirement of an access arrangement is for applicants, users and the Authority to be able to determine what elements are included and how they were derived.

[7] Introductory elements refers to clauses 1.1 to 2.2 of Western Power's proposed access arrangement.

59. Essentially, an access arrangement must enable a user, applicant and the Authority to understand the arrangements for access to a covered network.

Western Power's Proposal

60. Western Power has incorporated an introduction which includes the proposed purpose, start date, revisions submission and commencement dates and lists the elements which comprise the proposed access arrangement.

61. There is a section which outlines the access arrangement's relationship to the proposed technical rules and access arrangement information.[8] There is also a section which outlines how definitions are to be interpreted throughout the proposed access arrangement.[9]

Interested Party Submissions

62. Alinta Limited (**Alinta**) stated:

> Alinta queries whether the Proposed Access Arrangement clearly identifies the infrastructure to which it applies. Clause 1.1 explains that the Proposed Access Arrangement governs access to the SWIN (or the SWIS as the Proposed Access Arrangement calls it). However, the Proposed Access Arrangement does not precisely define what the SWIS is, or give any physical or geographical description of what it covers. Although it is reasonable to assume that this phrase has the meaning attributed to it in the Code, the Proposed Access Arrangement does not make this clear, because it does not italicise the phrase as required by (its own) clause 2.1. Furthermore, even if the Code definition is applied, users will still be required to refer to the *Electricity Industry Act 2004* (WA) for a substantive definition.
>
> Given that the Proposed Access Arrangement is one of the most important instruments regulating access to the SWIN, Alinta considers it is important that the Proposed Access Arrangement clearly (and immediately) identify the infrastructure to which it applies in detail and with accuracy and precision. Alinta suggests that a prospective user should be able to easily refer to the Proposed Access Arrangement to determine whether it applies to a network, or part of a network, to which the prospective user requires access. Therefore, Alinta submits that the Proposed Access Arrangement should be amended so that it expressly defines the SWIN.
>
> Alinta also suggests that it would be desirable to clarify the use of the terms "SWIS" and "SWIN" within the Proposed Access Arrangement. For example, in the manner used by the ERA in its Issues Paper. We note that clause 1.1 of the Proposed Access Arrangement refers to the "SWIS", which is stated to be a covered network under the Code. Reference to the definition of "SWIS" in the Code indicates that the term refers to the South West Interconnected System owned by Western Power as well as privately owned parts of that system. Section 3.1 of the Code states that those parts of the SWIS owned by Western Power are covered by the Code.[10]

Authority's Assessment

63. It is noted that the proposed access arrangement does not define the SWIS or the SWIN. Users, applicants and the Authority are not given the necessary definition, leading to uncertainty about the application of the access arrangement.

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[8] Access arrangement, clauses 1.8 and 1.9.

[9] Access arrangement, clause 2.

[10] Alinta, page 7.

64. As Alinta suggests, proposed clause 1.1 implies that the access arrangement will be the sole instrument that governs access to the SWIS, whereas the Access Code definition explicitly defines an access arrangement as applying to a covered network. The covered network (SWIN) is the portion of the SWIS owned and operated by Western Power. The Authority considers it is necessary for the scope of the access arrangement's application to be sufficiently certain in order for the Code objective to be satisfied.

65. In addition, Western Power's proposed clause 1.7 lists the order of the composition of the access arrangement incorrectly. The Authority considers that the appendices listed in clauses 1.7(c) and (d) are inverted.

Draft Decision

Required Amendment 1

Western Power to amend clause 1.1 of its proposed access arrangement to reference only those portions of the SWIS it owns and operates and to define SWIS and SWIN.

Required Amendment 2

Western Power to amend clauses 1.7(c) and (d) of its proposed access arrangement to correctly list the placement of appendices.

Reference Services

Access Code Requirements

66. Section 5.1(a) of the Access Code requires that an access arrangement must specify one or more reference services under section 5.2.

67. Section 5.2 of the Access Code provides that:

> 5.2 An access arrangement must:
>
> (a) specify at least one reference service; and
>
> (b) specify a reference service for each covered service that is likely to be sought by either or both of:
>
> (i) a significant number of users and applicants; or
>
> (ii) a substantial proportion of the market for services in the covered network;
>
> and
>
> (c) to the extent reasonably practicable, specify reference services in such a manner that a user or applicant is able to acquire by way of one or more reference services only those elements of a covered service that the user or applicant wishes to acquire; and
>
> (d) for the covered network that is covered under section 3.1 – specify one or more reference services such that there is both:

(i) a reference service which enables a user or applicant to acquire an entry service at a connection point without a need to acquire a corresponding exit service at another connection point; and

(ii) a reference service which enables a user or applicant to acquire an exit service at a connection point without a need to acquire a corresponding entry service at another connection point.

68. The Access Code defines a number of terms that are relevant to the Authority's assessment of Western Power's proposed reference services:

- "Service" means a covered service or an excluded service.
- "Covered service" means a service in relation to the transportation of electricity by means of a covered network, including:
  - a connection service; or
  - an entry service or exit service; or
  - a network use of system service; or
  - a common service; or
  - a service ancillary to a service listed in paragraphs (a) to (d) above.
- "Entry service" means a covered service provided by a service provider at an entry point under which the user may transfer electricity into the network at the entry point.
- "Exit service" means a covered service provided by a service provider at an exit point under which the user may transfer electricity out of the network at the exit point.
- "Excluded service" means a service in relation to the transportation of electricity by means of a covered network, including:
  - a connection service; or
  - an entry service or exit service; or
  - a network use of system service; or
  - a common service; or
  - a service ancillary to a service listed in paragraphs (a) to (d) above,

  which meets the following criteria:
  - the supply of the service is subject to effective competition, and
  - the cost of the service is able to be excluded from consideration for price control purposes without departing from the Code objective.
- "Reference service" means a covered service designated as a reference service in an access arrangement under section 5.1(a) for which there is a reference tariff, a standard access contract and service standard benchmarks.
- "Non-reference service" means a covered service that is not a reference service.

- "Reference tariff" means the tariff specified in a price list for a reference service.

69. In addition to the above, sections 6.33 to 6.37 of the Access Code require Western Power to satisfactorily demonstrate why any service should be treated as an excluded service. Otherwise, all services should be treated as covered services.

Western Power's Proposal

70. Western Power's proposed reference services are detailed in clauses 3.3 to 3.5 of its proposed access arrangement and described further in chapter 2 of part D of its proposed access arrangement information.

71. Western Power has proposed the following thirteen reference services:

- Ten reference services relate to loads connected to the distribution network:
  - RT1 Anytime Energy (Residential);
  - RT2 Anytime Energy (Business);
  - RT3 Time of Use Energy (Small);
  - RT4 Time of Use Energy (Large);
  - RT5 High Voltage Metered Demand;
  - RT6 Low Voltage Metered Demand;
  - RT7 High Voltage Contract Maximum Demand;
  - RT8 Low Voltage Contract Maximum Demand;
  - RT9 Street lighting; and
  - RT10 Unmetered Supplies.
- One reference service for generators directly connected to the distribution network:
  - RT11 Distribution Entry Service.
- Two reference services for users directly connected to the transmission network:
  - TRT1 Transmission Exit Service; and
  - TRT2 Transmission Entry Service.

72. Western Power has based these proposed reference services on services currently offered, with commensurate distribution and transmission tariffs. The tariffs that customers would pay for these services would be inclusive of transmission and distribution charges (i.e. bundled tariffs). Western Power would appear to prefer this approach because:

> …the existing Western Power tariffs reflect the services that a significant proportion of the company's customers want, without 'bundling' services together in a manner that requires customers to acquire services that they do not want. On this basis,

Western Power's view is that its existing tariffs provide a reasonable basis for defining reference services.[11]

73. The access arrangement information indicates that the proposed reference services are to be provided under the terms and conditions set out in the standard access contract with service standard benchmarks defined for the reference services.

74. Western Power has also identified the following non-tariff services in its access arrangement information:

- non-standard meter reading services;
- relocation of assets for customer (poles, pillars);
- service disconnects/reconnects at customer request;
- quotations and construction of new assets;
- high load escorts;
- inspection services;
- connection services, transfer fees; and
- other miscellaneous network services as notified to customers from time to time.

75. Western Power has proposed that these non-tariff services should be treated as non-reference services, on the basis that:

- the service is not directly related to access provision; and therefore
- it is not possible or practical to set service standard benchmarks in relation to these services or to provide them in accordance with a standard access contract.[12]

Interested Party Submissions

76. The Authority received submissions from the following interested parties:

- The Generation Business Unit of Western Power (**Western Power Generation**);
- The Western Australian Sustainable Energy Association (**WASEA**); and
- Alinta.

77. Western Power Generation's submission noted that there is no proposed reference service for a person seeking only a Connection Access Contract. Western Power Generation questioned how a Connection Access Contract could be sought and priced based on the information included in the proposed access arrangement.[13]

[11] Access arrangement information, page 132.

[12] Access arrangement information, page 134.

[13] Western Power Generation, page 2.

78. WASEA's submission raised a number of concerns in relation to the reference services, in particular the way in which the services had been priced. Specifically, WASEA comment:

- that subsidising electricity usage insulates customers from appropriate price signals, leading to inefficient and costly usage;
- time of use tariffs are supported but consideration is requested to whether reference tariff levels represent efficient allocation of costs for network usage, particularly during peak periods;
- difference between anytime use and time of use tariffs is not sufficient to encourage a shift to time of use tariffs;
- whether peak and off-peak charges appropriately represent the true costs associated with the provision of network services; and
- that a more detailed differentiation of transmission and distribution pricing would provide more appropriate information for, and price signals to, customers.[14]

79. Alinta queried whether the proposed access arrangement recognises the conceptual distinction in the Access Code between reference services and reference tariffs, noting that "a reference service is not merely something that arises from the structuring of a tariff".[15] Alinta identifies the price list as an example, stating that:

> … the price list identifies the eligibility criteria that users must satisfy in order to qualify for reference tariffs (as opposed to reference services). This is curious, because it would seem that users must qualify for a reference service rather than a reference tariff. Moreover, it is only after users have qualified for a reference service, that reference tariffs can be imposed on them.[16]

80. Alinta queried whether Western Power has different distribution services or simply one service with different tariff arrangements and suggested:

> … that there may, in reality, be only 1 or 2 reference services in respect of access to the distribution network. They could be a "Distribution Transfer Service" (incorporating an entry service and exit service) or separate distribution entry services and exit services. The tariffs for these services could employ the same structure as the current reference tariffs proposed by Western Power.[17]

81. Alinta stated:

> … there should, according to the scheme set out in the Code, be some discernable difference between the nature of the core rights (and not just the tariffs) associated with one reference service when compared to another.[18]

[14] WASEA, page 7.
[15] Alinta, page 10.
[16] Alinta, pages 10-11.
[17] Alinta, page 11.
[18] Alinta, page 11.

82. Alinta also raised a number of concerns regarding the reference services offered in the proposed access arrangement, noting a lack of clarity in relation to:

- the nature of the reference services, as they are not clearly described;
- users' core rights for each reference service, such as whether users have a right to:
  - transfer electricity to and from the SWIN; and/or
  - physically connect to the SWIN.
- users eligibility to apply for the particular services offered;
- whether reference services are intended to apply to users or end consumers for the transportation of electricity on the distribution network;
- whether the reference services are intended to cover one or both of exit and entry services, and whether they cover connection services;
- whether any of the proposed reference services can be made available to users on an unbundled basis; and
- who the reference services apply to and users' eligibility.

83. In addition, Alinta queried whether the proposed reference services could satisfy the requirements of the Access Code, given the services did not include: a connection service; a use of system service; a common service; ancillary services; or entry and exit services in respect of the distribution network.[19]

Authority's Assessment

84. Western Power's proposed access arrangement information reasonably distinguishes between the two broad types of services (covered services and excluded services) as envisaged by the Access Code. All services are covered services unless they meet the requirements for them to be treated as excluded services, that is:

- the supply of the service is subject to effective competition; and
- the cost of the service is able to be excluded from consideration for price control purposes without departing from the Code objective.[20]

85. Western Power's proposed access arrangement information also reasonably distinguishes between the two types of covered services (reference services and non-reference services). Reference services are those services identified in an access arrangement as having a reference tariff, a standard access contract and service standard benchmarks. Non-reference services are those covered services that are not reference services.

[19] Alinta, pages 14-15.

[20] Access Code section 1.3.

86. The Authority, however, considers that Western Power's proposed access arrangement does not meet the requirements of section 5.2 of the Access Code to the extent that it does not:

- specify its reference services. Western Power does not make a clear distinction between reference services and reference tariffs; and
- explain why certain services that Western Power has identified should be treated as non-reference services.

The reasons for these concerns are detailed in turn below.

Assessment of proposed reference services

87. Western Power has proposed existing distribution and transmission tariffs as the basis for its future reference services. Moreover, reference services label the existing reference tariffs, rather than defining services which have one or more assigned tariffs. In order to be compliant with the requirements of section 5.2 of the Access Code the Authority considers it is necessary for Western Power to provide a description of the nature of services to which each tariff applies.

88. The Authority is aware that a number of services can be provided for any given tariff. Distribution haulage services, for example, could include supply of electricity, network maintenance services, connection and reconnection services, re-energisation, network control and hot water relay, network services meter data agent services, reserve supply or stand-by supply within the one tariff. A choice between tariffs can therefore be a choice for users between the various services that accompany each tariff.

89. The Authority considers that it is likely that Western Power in fact provides many different types of services under each tariff in the tariff schedule. In order for the access arrangement to meet the requirements of section 5.2(a) of the Access Code, the Authority considers that more information should be provided as to the range of services provided by Western Power under each tariff. Such services would then be reviewed by the Authority to assess whether these services are appropriately termed reference services under the Access Code.

90. Western Power has proposed to include Street lighting and Unmetered Supplies as reference services. The definition of "reference service" requires each such service to include a reference tariff, standard access contract and service standard benchmarks. In the Authority's view, neither Street lighting nor Unmetered Supplies currently meet these requirements.

91. A standard access contract is defined in the Access Code as "the terms and conditions for a reference service in an access arrangement under section 5.1(b)." Western Power has included a suite of proposed standard access contracts, being an Electricity Transfer Access Contract, Interconnection Works Agreement and Connection Access Contract.

92. The proposed Electricity Transfer Access Contract is assessed by the Authority as not offering standard terms and conditions applicable to services for Street lighting and Unmetered Supplies. Accordingly, as currently proposed, those two services do not meet the requirements of reference services. The Authority's assessment of the Electricity Transfer Access Contract, Interconnection Works Agreement and Connection Access Contract are discussed in part B of this draft decision.

93. While an alternative option is to propose Street lighting and Unmetered Supplies as non-reference services, the designation of these services as reference services would assist openness and transparency. This is particularly so for Street lighting where general industry practice is for a fixed rate to be charged for each street light.

94. The Authority therefore considers that if Western Power proposes RT9 Street lighting and RT10 Unmetered Supplies as reference services then Western Power will need to specify terms and conditions for these services.

95. In regard to Western Power's proposed reference services more generally, the Authority is not able to conclude that these meet the obligations of section 5.2(b) of the Access Code. This section requires that a reference service must be likely to be sought by either or both of (i) a significant number of users and applicants; or (ii) a substantial proportion of the market for services in the covered network. It is the Authority's view that Western Power's proposed access arrangement is not clear as to which of the five different types of covered services as defined in the Access Code apply to the ten proposed bundled tariffs for users with loads connected to the distribution network, that is:

- a connection service;
- an entry service or exit service;
- a network use of system service;
- a common service; or
- a service ancillary to these services.

96. In addition, Western Power has not specified the services which are provided for:

- RT11 - Distribution Entry Service (for generators directly connected to the distribution network); and
- TRT1 and TRT2 - Transmission entry and exit services (for customers directly connected to the transmission network).

97. The Authority is therefore unable to conclude that the proposed access arrangement meets the requirements of section 5.2(b) of the Access Code.

98. Section 5.2(c) of the Access Code requires that, to the extent reasonably practicable, reference services must be specified in such a manner that a user or applicant is able to acquire by way of one or more reference services only those elements of a covered service that the user or applicant wishes to acquire. The Authority does not consider that the proposed access arrangement meets this condition because users or applicants cannot, on the basis of the information provided by Western Power, assess:

- what they will be entitled to receive for the charges that they will pay;
- whether the service standard benchmarks proposed for each of the reference services are appropriate;
- whether the reference tariffs are appropriate for the reference services;
- the value offered under the standard access contract, having regard to the standard of service for the reference service and the reference tariff; and
- whether it is appropriate that services be "bundled" or "unbundled".

99. Further, as assessed in the Metering section of this draft decision, the Authority requires Western Power to articulate the metering charges attributable to each reference service, thereby allowing users and applicants to understand the costs associated with metering services that attach to each reference service.

100. Section 5.2(d) of the Access Code requires a service provider to nominate one or more reference services where a user can get an entry (or exit) service at a connection point without needing to acquire a corresponding exit (or entry) service.

101. Western Power asserts that its existing distribution and transmission tariffs have been developed with the Access Code section 5.2 requirements in mind.[21] The proposed transmission reference services explicitly relate to either an entry or exit service, therefore complying with the requirement of section 5.2(d) of the Access Code. However, given the "bundled" nature of services RT1 to RT10 (inclusive), the Authority considers that Western Power has not provided support for its claim that distribution reference services meet the requirements of section 5.2(d) of the Access Code.

Assessment of proposed non-reference services

102. Western Power has proposed a number of non-reference services, which it has termed "non-tariff services". It has not proposed why each of these services should be treated as non-reference services, except to note that "it is not possible or practical to set service standard benchmarks in relation to these services or to provide them in accordance with a standard access contract".[22]

103. The Authority notes that it is advantageous to identify a range of non-reference services, where inclusion of these services within standard tariffs would be inefficient and otherwise not be consistent with the Code objective. This could include services such as asset relocation, high load escorts, or customer requested works.

104. However, Western Power has not made clear whether the costs associated with services including non-standard meter reading services, quotations and construction of new assets, inspection services, and connection services/transfer fees are already included in the network tariffs set out in the tariff schedule.

105. In order for these proposed services to comply with the definition of non-reference services, the Authority would need confirmation that the anticipated costs of these services are not included within the cost base used for determining the tariffs in the tariff schedule.

106. The Authority notes that Western Power proposes a non-reference service for "other miscellaneous network services as notified to customers from time to time". In the view of the Authority, the service is not defined with sufficient certainty.

107. For the reasons outlined at paragraphs 84 to 106 the Authority does not consider that Western Power's proposed access arrangement meets the requirements of section 5.2 of the Access Code in relation to its description of reference services and level of specificity as to what each reference service provides (for example in relation to metering), a users ability to acquire only those services it requires and

[21] Access arrangement information, page 132.

[22] Access arrangement information, page 134.

the provision of entry/exit point only services. Further Western Power's proposed treatment of its "non-tariff" services is unclear in relation to the Access Code's requirements for non-reference services and/or excluded services.

Required Amendment 3

Western Power to identify its reference services so as to make clear specifically what services will be provided to customers. These reference services should be distinguished from Western Power's reference tariffs, albeit that there should be a reference tariff associated with each reference service.

Required Amendment 4

Western Power to propose standard access contracts for RT9 (Street lighting) and RT10 (Unmetered Supplies).

Required Amendment 5

Western Power to confirm its non-reference services and explain how they meet the Access Code requirements.

Service Standard Benchmarks

Access Code Requirements

108. Section 5.1(c) of the Access Code requires an access arrangement to contain service standard benchmarks for each reference service. Section 5.6 requires that the service standard benchmarks must be reasonable and sufficiently detailed and complete to enable a user or applicant to determine the value represented by the reference service at the reference tariff.

Western Power's Proposal

109. Western Power's proposed service standard benchmarks are provided at sections 3.11 to 3.16 of its proposed access arrangement. Separate benchmarks have been proposed for the transmission and distribution related reference tariffs.

Transmission Network Service Standards

110. The service standard benchmarks for the transmission network related reference services (TRT1 – transmission exit service and TRT2 – transmission entry service) that Western Power has proposed are:

- circuit availability - to measure network availability; and
- system minutes interrupted - to record the effect on customers of an outage.

111. Western Power's proposed service standard benchmarks for the first access arrangement period are shown in Table 2.[23]

Table 2 Western Power's proposed service standard benchmarks: first access arrangement period

Financial year ending 30 June:	2007	2008	2009
Circuit Availability (% of total time)	98.67	98.67	98.67
System Minutes Interrupted (meshed network)	8.3	8.3	8.3

112. In developing the proposed transmission service standard benchmarks Western Power has stated:

> Ideally, the service standard benchmark for the first Access Arrangement period should be developed with reference to many years of data on past performance. However, the availability of suitable data for this purpose is limited, so Western Power has derived the service standard benchmark with reference to circuit availability data from the year 2000 onwards only.[24]

113. At tables 25 and 26 of its access arrangement information Western Power summarises transmission circuit availability and systems minutes interrupted data over the most recent five year period, stating average circuit availability for this period was 98.74 per cent and average and median system minutes interrupted (meshed)[25] were 7.8 minutes and 8.3 minutes respectively.[26]

114. Western Power has proposed the following exclusions.

- All zone substation equipment including power transformers (for Circuit Availability).
- Zone substation equipment connected via a radial connection (for System Minutes interrupted).
- Tee configuration line circuits (for Circuit Availability).
- Unregulated transmission assets.
- Outages caused by a fault or event on a third party system.
- Force majeure events.

115. In relation to transmission reference services, Western Power states:

> Western Power recognises the benefits of applying service standard performance indicators which are consistent with those used elsewhere in Australia. However, in selecting the performance measures to apply to Western Power for the first Access Arrangement period, a critical consideration is whether it is possible to establish a reasonable record of historical performance against a particular proposed performance measure. As already noted, this is an important consideration because

[23] Access Arrangement, page 6.

[24] Access arrangement information, page 142.

[25] An electricity network is referred to as meshed where more than one path exists between two nodes in a network.

[26] Access arrangement information, page 143.

> there is a need to establish future performance targets that are consistent with recent actual levels of performance, as well as planned future expenditure.[27]

116. Western Power provides the following rationale for the transmission service standards proposed to measure interruptions:

> Western Power proposes the use of this indicator [System Minutes Interrupted] for meshed circuits only. Radial network elements are relatively few in number and their performance is dramatically affected by even a single significant event, making the setting of a meaningful target level (and bandwidth for the service standards adjustment mechanism) somewhat meaningless.
>
> The final indicator applied by the ACCC (relating to transmission constraints) is not particularly meaningful in Western Power's case, given the nature and configuration of the transmission network and the location of major generating plant.
>
> In summary, Western Power proposes to use System Minutes Interrupted (for meshed circuits only) and Circuit Availability as the measures of the service standard benchmarks for transmission reference services under the Access Arrangement.[28]

117. Western Power has also reported a previous trend in increasing the utilisation of its substations and considers that it is now prudent to adopt a reduced level for its normal cyclic rating utilisation. Western Power referred to the findings of the Queensland Electricity Distribution and Service Delivery for the 21st Century report prepared for the Queensland Government in July 2004.[29] This report noted the adverse effect on reliability of sustained high levels of network asset utilisation, in particular where increased asset utilisation had occurred as a result of deferring capital expenditures.

118. Western Power has forecast "reliability driven" transmission capex of $5.4 million over the regulatory period.[30]

Distribution Network Service Standards

119. For distribution network related service standards Western Power has proposed SAIDI[31] measures against "urban" and "rural" sub-network classifications.[32]

[27] Access arrangement information, page 139.

[28] Access arrangement information, page 140.

[29] Access arrangement information, page 58.

[30] Access arrangement information, page 62, table 6.

[31] SAIDI stands for System Average Interruption Duration Index. SAIDI is defined in Table 4 below.

[32] "Urban" and "rural" network is defined on page 4 of Western Power's proposed Access Arrangement.

120. For the distribution related tariffs Western Power's proposed service standard benchmarks are reproduced in Table 3:[33]

Table 3 SAIDI service standard benchmarks (expressed as system minutes per annum)

Financial year ending 30 June:	2007	2008	2009
SWIS total	277	259	224
Urban sub-network	242	226	195
Rural sub-network	509	476	410

121. In relation to improvements in service standards for the distribution network Western Power notes:

> As stated elsewhere in this submission, Western Power's overall service performance objective is to achieve a 25% improvement in reliability from the June 2004 SAIDI by June 2009 (i.e. the end of the first Access Arrangement period). Western Power has applied the 25 percent improvement target to both the Urban and Rural sub-networks, to develop the proposed reliability service standard benchmarks …[34]

122. Western Power has proposed distribution capital expenditure over the first access arrangement period of $41.6 million to achieve the stated reduction of 25 per cent improvement in reliability from the June 2004 SAIDI figure by June 2009.[35] A major component of this proposed capex is in relation to the [40] Worst Performing Feeder Program.[36] The assessment of this capex has been discussed at the distribution network capex section of this draft decision. Additional background regarding Western Power's distribution capex budgeting (unconstrained) for reliability related "direct strategies" is provided at page 97 of Appendix 7 of Western Power's access arrangement information.

123. In relation to distribution opex Western Power has also noted:

> Additional [opex] expenditure [is required] to meet Western Power's service standard benchmarks in relation to SAIDI. Network maintenance programs have been developed to facilitate the achievement of the significant reductions in interruptions required to meet the proposed reliability targets.[37]

124. The reliability component of distribution opex is represented graphically at Figure 17, page 116 of Western Power's access arrangement information.

125. Western Power has asserted that there has been "a worsening linear trend performance in relation to SAIDI from 1995 to 2005".[38] In part A, section 5.3 of its access arrangement information Western Power describes its approach to setting reliability targets and notes the recent (from June 2003) change in methodology for

[33] Access arrangement, page 4.

[34] Access arrangement information, page 146, also referred to at pages 39 and 104.

[35] Access arrangement information, page 104, 110, Table 17.

[36] Access arrangement information, page 105.

[37] Access arrangement information, page 112.

[38] Access arrangement information, page 37 and figure 3.

capturing reliability data. Western Power advises that its new trouble call management system (**TCMS**) captures a broader range of outages and customer connection issues than the previous system.[39]

126. Western Power proposes to determine exclusions to its SAIDI measures based on identifying Major Event Days (**MED**) in accordance with the IEEE[40] standard 1366-2003:[41]

> … as adopted by the Steering Committee on National Regulatory Reporting Requirements (SCNRRR).[42]

127. Subsequent to lodging its proposed access arrangement, Western Power advised the Authority that the [SWIS total] 2.5 Beta[43] figure calculated for the purposes of determining Major Event Day exclusions, in accordance with the IEEE 1366-2003 methodology, was 8.66 minutes and calculated over the 24 months to June 2005.[44]

128. In its submission regarding the Authority's September 2005 issues paper and the Authority's NAS report[45] on service standards Western Power provided comments:

> … identifying what are believed [by Western Power] to be factual errors in the [NAS] report relevant to the ERA's consideration of public responses, rather than a response to particular issues raised by NAS *per se*.[46]

These issues are addressed in the following sections.

Interested Party Submissions

129. The Office of Energy queried Western Power's assertion regarding a "worsening linear trend in relation to SAIDI from 1995 to 2005" noting "if the two most recent years are omitted there is no distinct underlying trend in reliability performance from 1999". The Office of Energy also notes:

> There seems little foundation from which to determine a reliable baseline for network performance, given the acknowledged year to year volatility of network performance data and that validated data appears to be available for only 2004 and 2005.
>
> This is particularly important if it is to underpin a Service Standards Adjustment Mechanism as proposed.

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[39] Access arrangement information, page 39.

[40] IEEE is the Institute of Electrical and Electronics Engineers, Inc.

[41] IEEE standard 1366 relates to electric power distribution reliability indices.

[42] Access arrangement, page 4.

[43] 2.5 Beta is the statistical measure used to determine the SAIDI threshold value, above which are considered to be Major Event Days and excluded from the SAIDI performance measure.
For background refer D.A. Kowalewski's paper entitled "A Comparable Method for Benchmarking the Reliability Performance of Electric Utilities", published in *Power Engineering Society Summer Meeting*, 2002.
This paper proposes a 3-beta approach for excluding SAIDI outcomes above a threshold determined on the basis of weather and extreme event variances within a distributor's own business region.

[44] Email from Western Power, 29 September 2005.

[45] Network Advisory Services (2005).

[46] Western Power, page 4.

In addition, the annual targets for distribution performance that Western Power has proposed show only modest improvement in the initial years, improving mostly in the last year of the regulatory period.

There also seems to be some confusion in the baseline for the proposed performance improvement:

- The Access Arrangement Information states that Western Power's target improvement for SAIDI is a 25% improvement on that for the year ending June 2004.
- For the South West Interconnect System overall, the 2009 target is 224 suggesting a June 2004 value of 299.
- However, Figure 3 in the same document shows a 2004 SAIDI for SWIS of 258 and also states that the 2004 value is based on validated Trouble Call Management System data, suggesting it is a reliable value for that year.

Western Power has proposed distribution performance targets for rural and urban areas only. No standards have been proposed for the Perth central business district, in which reliable electricity supply plays a critical role in our State's economy.

In considering the distribution performance targets Western Power has proposed for the Service Standard Adjustment Mechanism, the Office believes that the Authority should consider:

- if the base performance levels reliably reflect the current underlying performance;
- if the intermediate reliability targets reflect appropriate annual progress toward the stated objective of 25% reduction compared with the June 2004 performance; and
- the need to specifically recognise the economic significance of supply reliability in the Perth central business district in addition to urban and rural areas.[47]

130. In relation to service standards Alinta stated:

Alinta acknowledges that these service standards are useful. However, Alinta suggests that Western Power has proposed less service standards than most other Australian Transmission Network Service Providers (TNSPs).[48] Alinta considers that the service standards proposed by Western Power are not reasonable, and do not permit a user to determine the value represented by the transmission reference services, because they are limited in scope and do not set standards in respect of some important aspects of the reference services.

Alinta suggests Western Power should be required to provide other service standards in addition to Circuit Availability and System Minutes Interrupted. In particular, Western Power should be required to adopt a "loss of supply event frequency index" to measure the frequency of "off-supply" events, such as extreme events, unplanned outages exceeding a specified impact and outages on all parts of the regulated transmission system. Alinta considers that this service standard would allow users to better assess the value represented by the reference services. Alinta also notes that the "loss of supply event frequency index" has already been adopted by most TNSPs and is one of the five core performance measures for TNSPs recommended by the Australian Energy Regulator in the Electricity Transmission Regulatory Guidelines.[49]

[47] Office of Energy, page 7.

[48] The table in Appendix 1 of Alinta's submission compares the *service standards* proposed by Western Power with those adopted by other TNSPs.

[49] Alinta, pages 59-70.

131. In relation to its view on the reasonableness of Western Power's proposed transmission service standard benchmarks, for system minutes interrupted Alinta states:

> Western Power stated in its Access Arrangement Information that over the past 5 years, Western Power's average performance for the System Minutes Interrupted measure was 7.76 system minutes per year. Further, in 2004 2005 Western Power's System Minutes Interrupted statistic was 5.8 minutes per year. Therefore, based on Western Power's historical performance, Alinta considers that Western Power's proposed benchmark of 8.3 minutes is unreasonable as it has been set at a figure that is higher than Western Power's 5 year average of 7.76 minutes per year. Alinta submits that the System Minutes Interrupted benchmark should be decreased to a reasonable figure that reflects Western Power's actual performance over the last 5 years and which provides it an incentive to improve its performance over the Access Arrangement period. This will ensure that the performance incentives (and financial penalties) arising from the service standards adjustment mechanism associated with this service standard provide a reasonable outcome. Further, Alinta considers that it is unreasonable for Western Power to set a service standard benchmark for system interruption at a figure that is greater than the average system interruption over the past 5 years.[50]

132. For transmission circuit availability in relation to Western Power's proposed figure of 98.67 per cent across all three years of the initial access arrangement period Alinta commented:

> Western Power stated in its Access Arrangement Information that its 5 year average for circuit availability is 98.74%. Alinta considers that it is unreasonable for Western Power to set its service standard benchmark at a figure that is less than its average circuit availability over the past 5 years. Further, Alinta considers that Western Power does not have an incentive to improve circuit availability over the Access Arrangement period as the proposed benchmark remains constant over the Access Arrangement period.
>
> Alinta submits that the ERA should review Western Power's service standard benchmarks for the transmission reference services and consider whether they provide incentives for improvement over the Access Arrangement period.[51]

133. In relation to its view on the reasonableness of Western Power's proposed SAIDI distribution service standard benchmarks Alinta notes:

> While Alinta is comfortable with the use of the SAIDI service standard, it is concerned that the use of it alone is not reasonable and does not enable a user to determine the value represented by the distribution reference service at the reference tariffs. Alinta requests that the ERA review and consider whether to also require the use of the SAIFI, CAIDI and MAIFI[52] service standards for the distribution reference services.[53]

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[50] Alinta, page 60.

[51] Alinta, page 60.

[52] CAIDI stands for Customer Average Interruption Duration Index.
SAIFI stands for System Average Interruption Frequency Index.
MAIFI stands for Momentary Average Interruption Frequency Index.
The derivation of these terms is explained in Table 4 below.

[53] Alinta, page 61.

Authority's Assessment

134. Measures of service standards usually distinguish between those for reliability of supply, quality of supply and customer service. Whilst reliability of supply is concerned with the availability of supply, quality of supply is concerned with the characteristics of the electricity supply delivered to customers' premises, specifically whether there are short term or transient voltage increases (voltage surges) or reductions (voltage sags) and harmonic distortions. Customer service relates to the distributors' performance in meeting customer requirements such as responding to queries, providing information and meeting timelines. The Authority is conscious that service providers may have reporting and performance monitoring requirements included in licence obligations.

135. The Authority notes that section 5.6 of the Access Code requires that service standard benchmarks must be reasonable and sufficiently detailed and complete to enable a user or applicant to determine the value represented by the reference service at the reference tariff. To be reasonable service standards would need to be consistent with users receiving the service that they pay for. The Authority therefore requires Western Power to identify and measure the level of service that is expected to be provided, and outline clear reporting requirements.

136. Reporting on the service delivered plays an important role in enabling a user or applicant to determine the value represented by the reference service at the reference tariff as it provides:

- information to users on the service provider's performance against the level of service that users should expect;
- a focus on the performance standards to be met in service delivery; and
- information to enable further service measures to be incorporated into any financial incentive arrangements that may be applicable over time.

Transmission Network Service Standard Measures

137. The Authority notes that Western Power has not proposed any improvement in its benchmark transmission service standard benchmarks over the access arrangement period, other than by way of its proposed service standard adjustment mechanism (**SSAM**) which is discussed in the Service Standard Adjustment Mechanism section of this draft decision. Additionally the service standard benchmarks proposed are less than the prior five year averages for the proposed measures of circuit availability and system minutes interrupted.

138. The Australian Energy Regulator (**AER**) issued a compendium of regulatory guidelines in August 2005 that included service standard guidelines.[54]

[54] Australian Energy Regulator, Compendium of Electricity Transmission Regulatory Guidelines, August 2005. The AER assumed the Australian Competition and Consumer Commission's (**ACCC**) responsibilities for the regulation of electricity transmission services in the National Electricity Market (**NEM**) on 1 July 2005.

139. The AER requires five core performance measures for transmission network service provider's (**TNSPs**). These measures are defined in schedule 1 of the AER guidelines. They are:

- transmission circuit availability;
- average outage duration;
- frequency of 'off supply' events;
- inter-regional constraints; and
- intra-regional constraints.

Of these measures, inter-regional constraints is not applicable to the SWIS.

140. The Authority notes that the AER's guidelines on transmission network service standards have been developed in accordance with the revenue cap framework set out in the National Electricity Rules (**NER**).[55] However, the Authority considers the AER service standards are of assistance in assessing the reasonableness of Western Power's proposed service standard benchmarks.

Transmission Network Service Standard Levels

141. Western Power notes in its submission the benefits of applying service standard performance indicators which are consistent with those used elsewhere in Australia. However, Western Power has asserted that, in selecting performance measures for the first access arrangement period, an important consideration is whether it is possible to establish a reasonable record of historical performance against a particular proposed performance measure.

142. Western Power also recognises that ideally service standard benchmarks for the first access arrangement period should be developed with reference to many years of data on past performance, but contends the availability of suitable data for this purpose is limited. As a result Western Power has derived its proposed service standard benchmarks with reference to circuit availability data from the year 2000 onwards only.

143. The Authority notes Western Power's view regarding whether it is possible to establish a reasonable record of historical performance against a particular proposed performance measure. However, a consideration in determining and reporting service standard benchmarks is to ensure that the performance data is credible, transparent and comparable over time. A lack of historical data highlights the need to ensure performance against service standard benchmarks is appropriately reported over the initial access arrangement period in order to aid in the establishment of credible, consistently reported and comparable service standard data.

144. The Authority has assessed Western Power's proposed transmission service standard benchmarks and its rationale for them. In doing so the Authority has had regard to national standards, the views of interested parties and the Access Code requirements and the Code objective. The Authority notes performance measures are of importance to all stakeholders and users in terms of price – service level

[55] National Electricity Rules pursuant to section 90 of the National Electricity Law, July 2005.

considerations and future investment decisions. This is reflected in section 5.6 and chapter 11 of the Access Code.

145. The Authority agrees with Western Power's view that it is prudent to take account of the findings of the Queensland Electricity Distribution and Service Delivery for the 21st Century, prepared for the Queensland Government in July 2004 in relation to good engineering practice for the normal cyclic rating utilisation of its substations, and acknowledges that Western Power's substations are heavily loaded.

146. The Authority also notes Western Power's observation:

> Western Power's planning process identifies a number of network constraints over the next ten years, based on the network planning assumptions (that is, demand growth and new generation developments) described in this submission. Depending on the nature of the network constraints, different solutions may be available. In some cases, it may be possible to avoid network augmentation if demand side or generation solutions are brought forward in the right locations.[56]

147. As the SWIS develops and an increasingly dynamic electricity market evolves there will be a number of options available for addressing network constraints (as Western Power notes). The reporting of network constraints will provide a key economic signal to market participants when considering available options. In the event that network augmentation presents as a viable alternative option it cannot be presumed that the incumbent network service provider will necessarily be the provider of all network augmentation solutions in the future. For example, the reporting of transmission constraints will provide economic and locational signalling for loads, networks and/or generation stakeholders in the SWIS.

148. In summary, Western Power's proposed transmission service standard benchmarks are not as comprehensive as those required by the AER. The Authority considers that the rationale for Western Power only including circuit availability and system minutes interrupted as benchmarks is unreasonable in terms of their narrow scope and they are not sufficiently detailed and complete to enable a user or applicant to determine the value represented by the reference service at the reference tariff. Accordingly, taking into account the interests of other stakeholders it is assessed that the proposed benchmarks do not meet the Code objective or requirements of section 5.6 of the Access Code.

149. Western Power has also proposed a number of exclusions. In particular, exclusions for:

- Circuit Availability of:
  - all zone substation equipment including power transformers; and
  - Tee configuration line circuits; and
- System Minutes Interrupted:
  - zone substations connected to the transmission network via radial connections.

150. These are not consistent with transmission standards adopted in the NEM jurisdictions, and additionally are assessed as not meeting the Access Code

[56] Access arrangement information, page 30.

requirements. For example, the Authority notes Western Power's view, that system minutes interrupted should apply to meshed circuits only on the basis that "radial network elements are relatively few in number and their performance is dramatically affected by even a single significant event, making the setting of a meaningful target level (and bandwidth for the service standards adjustment mechanism) somewhat meaningless", is inconsistent with the requirements for service standard benchmarks pursuant to section 5.6 of the Access Code. Comprehensive service standard performance covering all of the covered assets in the transmission network is fundamental to meeting the Access Code's service standard requirements.

151. Section 11.1 of the Access Code, requires that:

> A service provider must provide reference services at a service standard at least equivalent to the service standard benchmarks set out in the Access Arrangement and must provide non-reference services to a service standard at least equivalent to the service standard in the access contract.

152. The Authority notes that Western Power has submitted "service standard benchmarks" in its proposed access arrangement that are not firm commitments to achieve defined reliability outcomes, as compared to minimum average reliability performance standards. For example, while Western Power has proposed circuit availability and system minutes interrupted figures these are not considered to be firm performance commitments because Western Power is proposing (via its service standards adjustment mechanism), a "deadband" comprising an upper band and lower band within which service standards could vary without any financial penalty/benefit. Notwithstanding the level of the benchmarks, which is addressed below, the Authority does not consider that Western Power's proposed service standard benchmarks meet the requirements of section 11.1 of the Access Code.

153. The Authority acknowledges Western Power's view regarding the lack of historical data upon which it has proposed its service standards. The Authority accepts that some weight needs to be given to this lack of historical data, particularly in the first access arrangement period. However, any consideration in this respect needs to also recognise the increases in capital and operations and maintenance expenditure and be underpinned by adequate reporting across a broader range of criteria that are, where applicable, nationally consistent in terms of performance measure type and permissible exclusions.

154. Accordingly, and consistent with the AER's compendium of regulatory guidelines, the Authority considers that in order to meet the requirements of section 5.6 of the Access Code, Western Power should report as a minimum against the following transmission network performance measures. They are:

- transmission circuit availability;
- average outage duration;
- frequency of "off supply" events; and
- intra-regional constraints,

noting inter-regional constraints are not applicable to Western Power's SWIN. These measures are defined in schedule 1 of the AER's Compendium of Electricity Transmission Regulatory Guidelines.

155. In relation to the standard of the above measures, the Authority considers that it is not reasonable for Western Power to adopt transmission performance benchmarks that are less than the recent five year averages, noting no improvement is proposed in the service standard benchmark over the access arrangement period. In this regard, the Authority notes the comparative analysis provided by Alinta in its submission which indicates transmission circuit availability for ElectraNet, Transgrid and SPI PowerNet in the 99th percentile.

156. Taking into account distribution service standard matters and allocations within the capex, the Authority considers Western Power should at least maintain its existing five year average performance levels and establish performance data that is comparable with its network peers in the NEM. In relation to intra-regional constraints and in order to comply with section 5.6 of the Access Code, Western Power should report on the basis of the nature of the constraint including location, duration, frequency and time of day. In this manner stakeholders will be better informed over time in relation to the transmission network's actual performance and have access to readily comparable service level and locational signalling data.

Distribution Network Service Standard Measures

157. The Utility Regulators Forum released National Regulatory Reporting guidelines that prescribe reliability measures and feeder classifications. The relevant details are reproduced in Table 4 and Table 5.[57]

158. The ESC in its recent Final Decision noted that the reliability measures on which Victorian electricity distributors reported over the 2001/06 period included CAIDI, SAIFI, SAIDI and MAIFI. These measures were further disaggregated by network type – CBD, Urban, Rural Short and Rural Long feeders.[58] These measures will continue to apply in the 2006/10 regulatory period. It is further noted that benchmark performance values were set for each of SAIDI, SAIFI and MAIFI (noting CAIDI is equal to SAIDI divided by SAIFI).

159. The QCA in its Final Determination noted that it would revise its service quality and reporting guidelines to facilitate nationally consistent reporting in accordance with the Utility Regulators Forum's National Regulatory Reporting guidelines.[59]

160. Western Power's proposed service standard benchmarks only use SAIDI. The SAIDI benchmarks have been set at a lower standard than those reported in recent annual reports. As noted earlier in relation to transmission network service standards, benchmarks are fundamental to establishing future performance targets that are consistent with recent actual levels of performance, as well as planned future expenditure. The Authority notes performance measures are also of importance to all stakeholders and users in terms of price – service level considerations and future investment decisions.

[57] National Regulatory Reporting for Electricity Distribution and Retailing Businesses. Utility Regulators Forum, March 2002.

[58] ESC (2005), pages 28 and 33.

[59] QCA (2005), page 223.

Table 4 Reliability measures

Measure/description	Index	Definition
Total number of minutes, on average, that a customer on a distribution network is without electricity in a year.	SAIDI system average interruption duration index.	The sum of the duration of each sustained customer interruption (in minutes) divided by the total number of distribution customers. SAIDI excludes momentary interruptions (one minute or less).
Average number of times a customer's supply is interrupted per year.	SAIFI system average interruption frequency index.	The total number of sustained customer interruptions divided by the total number of distribution customers. SAIFI excludes momentary interruptions (one minute or less).
Average duration of each interruption.	CAIDI customer average interruption duration index	The sum of the duration of each sustained customer interruption (in minutes), divided by the total number of sustained customer interruptions (SAIDI divided by SAIFI). CAIDI excludes momentary interruptions (one minute or less).
Average number of momentary interruptions per customer per year.	MAIFI momentary average interruption frequency index.	The total number of customer interruptions of one minute or less, divided by the total number of distribution customers.

Table 5 Feeder classifications

Feeder category	Description
CBD	A feeder supplying predominantly commercial, high-rise buildings, supplied by a predominantly underground distribution network containing significant interconnection and redundancy when compared to urban areas
Urban	A feeder, which is not a CBD feeder, with actual maximum demand over the reporting period per total feeder route length greater than 0.3 MVA/km.
Rural Short	A feeder which is not a CBD or urban feeder with a total feeder route length less than 200 km.
Rural Long	A feeder which is not a CBD or urban feeder with a total feeder route length greater than 200 km.

161. Western Power expressed concerns regarding the interpretation of Western Power's service standards, citing what it believed to be "factual errors"[60] in the NAS report on service standards for Western Power's SWIS. The Authority therefore

[60] Western Power, page 4.

considers that to avoid misunderstanding the relevant portions of the NAS report deserve clarification which is presented below.

162. Western Power has submitted "service standard benchmarks" in its proposed access arrangement. Western Power does not propose "minimum average reliability performance standards" of the kind that apply in other jurisdictions, being firm commitments to achieve defined reliability outcomes. For example, in relation to distribution, while Western Power has proposed SAIDI performance standards to operate for the SSAM, these are not of the same nature as those discussed in section 5.2 of the NAS report. This is because Western Power's proposed benchmarks are not firm performance commitments because Western Power proposes a "deadband" comprising an upper band and lower band, which is 10 per cent above and below the proposed benchmark standard. A high and low limit then applies which is a further 10 per cent above and below the "deadband". Payments or penalties only apply when performance is between the upper/lower bound and the high/low limit. Under Western Power's proposal nothing happens if it performs within plus or minus 10 per cent of the nominated benchmark. Accordingly there is an important distinction between Western Power's proposed service standard benchmarks and the "average reliability performance standards" and the "service incentive regime" referred to in the NAS report.[61]

163. In its 2 November 2005 submission, Western Power expressed concern regarding the importance of ensuring consistency of definitions regarding reliability measures. The NAS report highlighted this matter as one of the three key considerations for the Authority to consider when assessing Western Power's proposed SSAM.[62] The Authority acknowledges this matter as a consideration in relation to assessing the merits of adopting standards that will promote an appropriate level of transparency for all interested parties, consistent with section 5.6 of the Access Code and the Code objective. To this end the Authority has also had regard to the Steering Committee on National Regulatory Reporting Requirements (SCNRRR) and the AER's performance measure guidelines, including the merits of adopting standards that will promote national consistency and comparability.

Distribution Network Service Standard Levels

164. Western Power has asserted a "worsening linear trend" in SAIDI from 1995 to 2005. However, as the Office of Energy noted in its submission "if the two most recent years are omitted there is no distinct underlying trend in reliability performance from 1999" and "there seemed to be some confusion in the baseline for the proposed performance improvement".

165. Western Power has proposed significant capex for the forthcoming regulatory period to improve distribution service standards. This capex underpins Western Power's stated objective of achieving a 25 per cent improvement in reliability from the June 2004 SAIDI to June 2009.

166. This capex also represents a substantial financial commitment. Stakeholders will need to be assured that it provides demonstrable improvements across the distribution network that are measurable and transparent relative to the expenditure incurred. The Authority notes that the Access Code's Investment Adjustment

[61] NAS report, page 28 and sections 5.2.

[62] NAS report, page 82, recommendation 5.

Mechanism provides scope to address any underspend in approved reliability capex at the next access arrangement review.

167. In assessing Western Power's proposed SAIDI level starting point of June 2004 the Authority had regard to Western Power's 2003/04 Annual Report which did not reconcile with the information provided in its access arrangement information.[63] Nor did either of these sources reconcile with Appendix 7 of Western Power's access arrangement information.[64]

168. As the access arrangement information (figure 3) data is derived from Western Power's new TCMS the Authority has relied on the TCMS value of 258 SAIDI minutes as at 30 June 2004 as a basis for a starting point. The Authority notes this value is above Western Power's trend in its figure 3 and represents an approximate mid-point relative to the range inferred from the other sources cited.

169. Western Power has not provided a rationale for proposing distribution service standards that are less comprehensive than presented in its annual report nor why most of the proposed service standard improvement occurs at the end of the first access arrangement period. Accordingly, the Authority has assessed Western Power's proposal in relation to distribution network service standards as not meeting the Code objective or section 5.6(b) of the Access Code.

170. The Authority considers that Western Power's proposal, which is for service standard benchmarks based purely on SAIDI standards, is insufficient under section 5.6 of the Access Code. The Authority considers that frequency of outages is equally as important a measure as duration. Consequently, the Authority requires that Western Power should also adopt service standard benchmarks based on the frequency measure SAIFI. The Authority considers that a reasonable starting point for the relevant performance benchmarks should be the SAIFI figures reported in the Western Power 2004/05 Annual Report. MAIFI is also assessed as being a relevant performance benchmark criteria that should also be reported.

171. Western Power has proposed to apply SAIDI measures to its definitions of urban and rural networks.[65] The definitions do not align with those of the national guidelines. Further they do not provide transparency into actual CBD, urban and rural performance or provide data that is readily comparable to Western Power's network peers.

172. In order to meet the Code objective in relation to distribution network service standards the Authority considers that, as a minimum, Western Power should define and report distribution network service standards and reporting by feeder type in accordance with the National Regulatory Reporting guidelines.

173. The Authority notes that the service standard benchmarks for SAIDI, SAIFI, CAIDI and MAIFI for each of the CBD, Urban, Rural Short and Rural Long feeder classifications in the SWIS are aggregated and do not reflect individual feeder performance. However, the Authority is concerned that the aggregate performance for each feeder classification may not reflect the required improvements resulting from expenditure in accordance with the Worst Performing Feeder Program.

[63] Access Arrangement Information, page 37, figure 3.

[64] Access Arrangement Information, figure 78 data.

[65] Access Arrangement, page 4.

Therefore, the Authority intends to monitor Western Power's Worst Performing Feeder Program to assess the benefits of the expenditure on the targeted feeders.

174. In the Authority's view, it may require such information pursuant to section 11.5 of the Access Code. Further, the distribution licence and transmission licence for Western Power will contain clauses which compel Western Power to provide information specified by the Authority in a time specified by the Authority (see clauses 22 and 18 of the standard form distribution and transmission licences respectively). Accordingly, the Authority intends to use this power to require Western Power to provide the following service standard related information.

- Reporting transmission and distribution network performance in accordance with the National Regulatory Reporting guidelines and required amendments detailed below.
- Explicitly identifying the 20 worst metro, 10 worst north country and 10 worst south country feeders in accordance with its Worst Performing Feeder Program.
- Report the current service levels on each of the 40 worst feeders prior to commencement of the first access arrangement period.
- Report on the end of regulatory period performance levels.
- Report actual expenditure incurred at the end of the regulatory period in relation to reliability driven expenditure and the Worst Performing Feeder Program.

Transmission Network Service Standards – Required Amendments

Required Amendment 6

Western Power to amend its transmission network benchmarks for circuit availability (per cent of total time) for each year of the access arrangement period to 98.74 per cent.

Required Amendment 7

Western Power to amend its transmission network benchmarks for systems minutes interrupted (all transmission network) for each year of the access arrangement period to 7.8 minutes per year.

Required Amendment 8

Western Power to amend its list of allowable exclusions:

- For circuit availability, do not include as an exclusion:
  - all zone substation equipment including power transformers; and
  - Tee configuration line circuits,
- For system minutes interrupted, do not include as an exclusion:
  - all transmission network radial connections; and
  - all zone substations connected to the transmission network via radial connections.

Required Amendment 9

Western Power to adopt as a minimum transmission network service standards of:

- transmission circuit availability,
- average outage duration,
- frequency of "off supply" events, and
- intra-regional constraints,

in accordance with the Australian Energy Regulator's Compendium of Electricity Transmission Regulatory Guidelines, as at August 2005, for transmission network service standards. These performance measures are to be determined consistent with Schedule 1 – Definitions of Performance Measures, of the AER document. Intra-regional constraints are also to adopt reporting measures on the basis of the location, duration, frequency and time of day of the constraint.

Required Amendment 10

Western Power to apply the required service standards to all covered transmission network assets, meshed or radial, in the SWIS.

Distribution Network Service Standards – Required Amendments

Required Amendment 11

Western Power to amend its proposed access arrangement to adopt the National Regulatory Reporting for Electricity Distribution and Retailing Businesses guidelines and definitions and include the following minimum distribution service standard feeder types:

- CBD;
- Urban;
- Rural Short; and
- Rural Long feeders

for each year of the first access arrangement period, as defined in the guidelines.

Required Amendment 12

Western Power to amend its proposed access arrangement clause 3.13 and related clauses to adopt SWIS total SAIDI service standard benchmarks for the reference services RT1 to RT11 for the years ending 30 June 2007, 2008 and 2009 of 219, 206 and 194 SAIDI minutes per annum respectively.

Western Power to propose SAIDI service standard benchmarks for each of the CBD, Urban, Rural Short and Rural Long feeder classifications for each year of the first access arrangement period that are consistent with the SWIS total SAIDI service standard benchmarks.

Required Amendment 13

Western Power to propose SAIFI service standard benchmarks for each of the CBD, Urban, Rural Short and Rural Long feeders for each year of the first access arrangement period, commencing from the – SWIS total – value of 3.09 minutes from the Western Power 2004/05 annual report.

Required Amendment 14

Western Power to propose performance reporting on SAIDI, SAIFI, CAIDI and MAIFI for each of the CBD, Urban, Rural Short and Rural Long feeder classifications in the SWIS.

- The feeder type criteria to be defined and applied in accordance with the National Regulatory Reporting for Electricity Distribution and Retailing Businesses definitions.
- Permissible exclusions to be determined only in accordance with the Steering Committee on National Regulatory Reporting Requirements endorsed IEEE Standard 1366 application for the 2.5 Beta methodology for SAIDI, as proposed by Western Power, for each feeder type.
- "Raw" (unadjusted for exclusions) data to be collected as well as "adjusted" data which is net of allowable exclusions.
- The 2.5 Beta figure for each feeder type is to be separately reported as well as the SWIS Total 2.5 Beta figure.
- The nature of excluded events pursuant to the 2.5 Beta methodology to also be qualitatively described (e.g. environmental factors causing the excluded event).
- Include "Time to restore supply" statistics by feeder type for all unplanned outages.
- Include Worst Performing Feeder Program performance.

Required Amendment 15

For its Worst Performing Feeder Program Western Power to:

- explicitly identify the 20 worst metro, 10 worst north country and 10 worst south country feeders per its proposal for this program; and
- report the current service levels on each of the 40 worst feeders prior to commencement of the first access arrangement period.

Demand Forecasts

Access Code Requirements

175. Section 4.3 of the Access Code prescribes the information that is required to be included in a service provider's access arrangement information. Section 4.3(d) of the Access Code requires the inclusion of information detailing and supporting the service provider's system capacity and volume assumptions.[66]

176. Demand forecasts are an essential part of the derivation of reference tariffs from total revenue and are to be assessed by the Authority consistent with the Code objective and the requirements of Chapter 8 of the Access Code.

Western Power's Proposal

Network planning

177. Western Power provides an overview of its network planning and investment process which includes a three level consideration of capacity and notes:

> In each case, the focus is on understanding the most onerous conditions that will affect each network element. For example the bulk transmission network's most onerous power flows are at the time of system peak. An individual substation may have its peak load at a different time to the remainder of the network.
>
> The peak demand for electricity is highly sensitive to temperature. The forecasts used by Western Power for network planning purposes are based on a 10 percent Probability of Exceedance.[67]

178. Western Power commissioned National Institute of Economics & Industry Research (**NIEIR**) to review the company's forecasts for energy and demand for the transmission network for each year of the forthcoming access arrangement (2006-07 to 2008-09 inclusive). This consultant was also involved in the preparation of the Independent Market Operator's (**IMO**) 2005 generation forecast.[68]

179. NIEIR was asked by Western Power to verify that its forecasts were suitable for underpinning the access arrangement. Western Power required the transmission energy and demand forecasts to be prepared on a consistent basis that should be reconcilable to the forecasts contained in its 2004 Generation Status Review (**2004 GSR**).[69] NIEIR's report is dated March 2005.

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[66] Access Code, section 4.3(d).

[67] Access arrangement information, page 29.

[68] Independent Market Operator (2005b), *Statement of Opportunities South West Interconnected System* (also referred to as the 2005 SOO).

[69] Access arrangement information, appendix 3, page 17.

Transmission demand

180. Western Power provided detail of its historic and forecast MW demand on the transmission system,[70] based on its 2004 GSR.[71]

Transmission Energy Forecasts

181. Western Power notes:

> ….these (transmission) forecasts provide a foundation for the company's forecasts of network development capital expenditure (including load and generation-related). The forecasts also provide the basis for developing the company's proposed price control and tariffs from its target revenue.[72]

182. Table 3.2 of the NIEIR report provides details of Western Power's transmission energy forecast as presented in the GSR and is reproduced in part in Table 6. The energy forecasts are most relevant to the setting of the price control formulae (which Western Power proposes to be a revenue yield approach), but Western Power notes these forecasts have minimal impact on the company's transmission investment plans.[73]

Table 6 Western Power's projected transmission energy[74]

Financial year	Medium (GWh)
2004-05	14,372
2005-06	14,844
2006-07	15,388
2007-08	15,954
2008-09	16,368
2009-10	16,938
Average growth (per cent)	
2004-05 to 2013-14	3.3

[70] Transmission Demand forecasts are required to verify relevant capital budget forecasts.
[71] Access arrangement information, page 46-47.
[72] Access arrangement information, page 44.
[73] Access arrangement information, page 47.
[74] Extract from access arrangement information, page 48.

Distribution Energy Forecasts

183. Table 4.1 of Part C section 2.3 from the access arrangement information provides distribution energy sales forecasts and is reproduced in Table 7.

Table 7 Western Power's forecast distribution energy sales[75]

Financial year	Forecast sales (GWh)
2004-05	11,591
2005-06	11,971
2006-07	12,410
2007-08	12,867
2008-09	13,200

184. Western Power noted that at the time of submission of its proposed access arrangement:

> Updated transmission demand and energy forecasts are expected to become available during the Access Arrangement review period. In particular, the Independent Market Operator recently published its "Statement of Opportunities, South West Interconnected System, July 2005" document. However, to date, Western Power has been unable to reconcile its forecasts with those of the IMO.
>
> In any event, it is planned to use the most up-to-date forecasts available during the latter stages of the Authority's Access Arrangement review process as the basis for final revenue and price setting prior to the final approval stage.[76]

185. Western Power did not submit any revised forecasts for the Authority's consideration prior to the publication of this draft decision.

Interested Party Submissions

186. Following the publication of the Authority's issues paper, which noted an inconsistency between the forecasts which had been developed by Western Power Networks and published in the 2004 GSR and those published by the IMO in the Statement of Opportunities (**2005 SOO**), the IMO subsequently determined the following sources of variance:

- there was an error in the way in which some of the data in respect of production from non-Western Power generators had been processed. This had understated the energy sent out by around 2 per cent in the 2005 SOO forecasts. This has been addressed and the IMO provided a revised set of energy forecasts; and
- the 2004 GSR and 2005 SOO still differ in their forecasts of future energy sales. This, however, is due to changes in the underlying economic expectations with the 2005 SOO forecasting a lower level of growth than had been included within the 2004 GSR forecasts.

[75] Reproduced from access arrangement information, page 102.

[76] Access arrangement information, page 49.

187. The IMO addressed in detail the basis of its energy and peak demand forecasts in its 2005 SOO and addressed the known reasons for variances between its forecasts and those submitted by Western Power. The IMO in its submission noted that NIEIR had also previously developed the energy and demand forecasts published by Western Power Networks in their generation status reviews for 2003 and 2004 and use of the same forecasting consultant meant that there is a consistent approach to the forecasts included within the 2004 GSR and the 2005 SOO.[77]

Maximum demand

188. The IMO explained the methodology used to develop the forecast for the summer maximum demand using an approach that took into account four major components, being:

- non-temperature sensitive load which is that component of residential, commercial and industrial load that does not change significantly as a result of differences in daily temperature. The growth in demand from these loads will be closely correlated to the level of economic activity within the SWIS. The number of new dwellings and the level of retail sales will be key drivers for this figure;
- major industrial loads which covers all of the larger customers in the SWIS. This portion of the demand is assessed by considering known development plans and analysis of the flow through of general economic growth;
- embedded generation which is generation that is co-located with major industrial loads. Industries such as the alumina refineries provide most of their own power but occasionally draw on the SWIS for stand-by supplies to cover generating plant outages; and
- temperature sensitive load. This comprises space cooling appliances, such as air-conditioning, whose level of usage is strongly determined by the ambient temperature on any given day. The size of this load component and the impact that it has on total peak demand, is very significant.

189. The IMO also reaffirmed Western Power's observation that the widespread installation of air conditioning equipment is having a substantial impact on the peak demand. The IMO noted a number of factors are driving the level of installations including:

- the increasing affluence within the community;
- the perception that air conditioning has moved from being a luxury item to a necessity;
- the use of reverse cycle air-conditioning for winter heating;
- technological improvements; and
- the reduction in real price coupled with strong marketing.

[77] IMO, page 3.

190. To address this, NIEIR provided the IMO with separate peak demand forecasts covering:

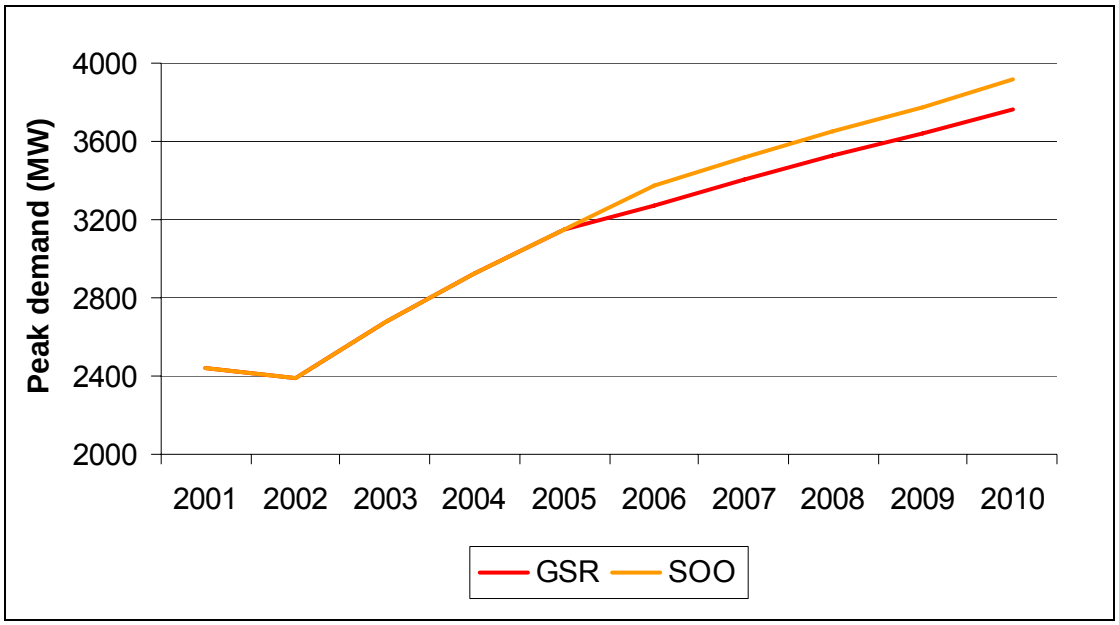
- the forecast demand which has a 10 per cent probability of being exceeded in any year (the 10th percentile demand);
- the forecast demand which has a 50 per cent probability of being exceeded in any year (the 50th percentile demand); and
- the forecast demand which has a 90 per cent probability of being exceeded in any year (the 90th percentile demand).

The IMO advised that the Market Rules require it to have sufficient generation and demand side management capacity available in the SWIS to meet a 10th percentile demand.

191. The IMO stated:

> Figure 1 compares the forecast peak demand in the 2004 GSR with that in the 2005 SOO and it can be seen that the SOO forecast is some 120 MW higher than that in the GSR. This difference is believed to be due to increases in air-conditioning purchases and usage. There was very hot weather in 2002/03 and this most likely prompted extra purchases which would have contributed to above forecast demand in 2003/04 and 2004/05.[78]

Figure 1 Peak demand (MW)[79]



[78] IMO (2005b) page 4.

[79] IMO (2005b) page 5.

Energy forecasts

192. In terms of the applicability of the 2005 SOO forecasts to Western Power, the IMO advised:

> The IMO develops forecasts covering all generators and loads that are part of the South West Interconnected System. At present, this is congruent with Western Power's South West Interconnected Network (SWIN) but this may not always be the case.[80]

And:

> NIEIR use a set of economic models which consider, in sequence, Australia as a whole, Western Australia and then the geographic area served by the SWIS. Electricity consumption forecasts for industrial and commercial users are based on econometric models that link Western Australian electricity sales by industry to real industry output growth, electricity prices and weather conditions. Residential sales are determined from a model including average consumption per dwelling, weather, real income and electricity prices.
>
> Western Power Networks provided NIEIR with data on electricity sales and output generated by Western Power and independent generators. This was used to estimate the level of sales for residential, business and public lighting. Further consumption data was provided by the Australian Bureau of Agricultural and Resource Economics and this was used to determine usage by various industries.
>
> NIEIR provided a series of forecasts to the IMO covering three load growth cases – expected, high and low – based on differing economic assumptions. The IMO then adjusted this data to take account of losses within Western Power's power stations, and generation and usage by independent generators.[81]

193. The IMO's forecasts, which have been corrected to address the data error associated with non-Western Power generators, are shown in Table 8.

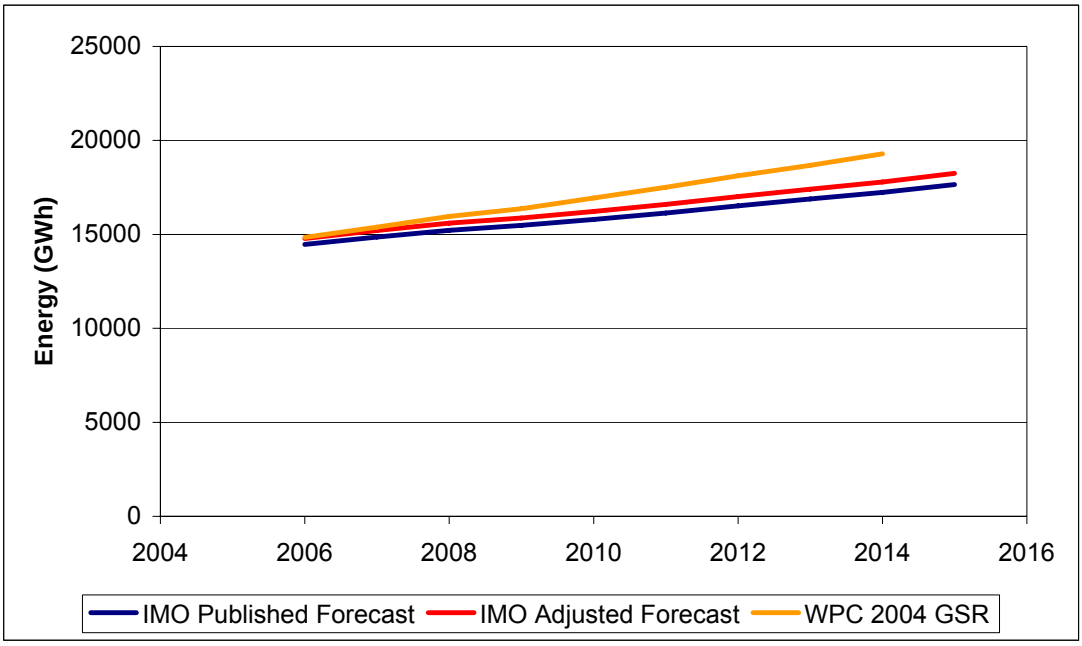
Table 8 IMO's Revised Sent-out Energy Forecasts (GWh)

Year	Expected Growth Rate	High Growth Rate	Low Growth Rate
2005/06	14777	14934	14705
2006/07	15208	15499	15039
2007/08	15595	16000	15328
2008/09	15874	16467	15549
2009/10	16222	17022	15734
2010/11	16601	17545	15971
2011/12	17014	18123	16202
2012/13	17410	18720	16485
2013/14	17787	19381	16742

[80] IMO (2005b) page 7.
[81] IMO (2005b) page 6.

194. The comparison between the energy forecasts contained within the 2004 GSR and the 2005 SOO (as published and as adjusted) is shown in Figure 2.

Figure 2 Adjusted IMO Energy Forecast (GWh)



195. The IMO noted that the 2005 SOO forecast shows a lower growth rate than was forecast in the 2004 GSR. In its report to the IMO, NIEIR commented that the energy forecasts had been revised downwards quite significantly. One of the factors driving this was a reassessment of the historical energy growth using an alternative weather normalisation process. NIEIR had found that the weather normalised growth in energy in previous forecasts was too high based on recent experience.

196. In relation to growth estimates the IMO noted that residential sales, which account for about one third of total electricity sales by Western Power, are expected to grow by around 3.2 per cent in 2005/06 and remain high due to continued strong dwelling construction through to 2009/10. Commercial sales, which represent around 29 per cent of the market, are expected to grow at around 2.9 per cent over the coming 10 years whereas industrial demand is only expected to grow at around 1.7 per cent.[82]

197. In closing the IMO noted:

> There are clearly significant differences between the forecasts published by the IMO and those previously published by Networks in the GSR. The increase in the peak demand forecasts is strongly influenced by the level of demand from air-conditioning. Sales of these appliances appear to have accelerated due to a variety of reasons, probably including the high temperatures in 2002/03. It is reasonable to assume that the earlier GSR forecasts may not have fully incorporated this trend.
>
> Now that the inconsistency between the GSR and SOO energy forecasts has been resolved, the remaining differences are due to forecasts of future load growth. As outlined above, NIEIR considers that the energy forecasts within the GSR are too

[82] IMO, page 6.

> high and has proposed a lower growth rate which is incorporated within the SOO forecasts. Forecasts are dynamic and, based on actual demand this year [2005], the forecast which is developed for next year's SOO may well be different again.
>
> At present, the loads covered by the SOO forecasts are identical to those which need to be covered by Networks' forecasts. However, there are a number of independent generators and networks which may elect to fully integrate within the wholesale market. They would then need to be covered by the IMO's forecasts but be excluded from Networks' forecasts.
>
> Under its legislation, the IMO is required to prepare the energy forecasts which are used for planning of capacity requirements within the SWIS. It is not obligatory that Networks use these forecasts, however, it would be desirable that planning of generation and networks be based, as far as is possible, on a common basis. The inconsistency between the 2004 GSR and 2005 SOO forecasts, has led Networks to use a forecast for this year that differs from that in the SOO. With the inconsistency issue resolved, the ERA may consider asking Networks to utilise the new energy forecasts within the SOO.[83]

Authority's Assessment

198. The IMO in its 2005 SOO report assessed capacity needs. The IMO replaces the function previously undertaken by Western Power in its 2004 GSR and the report gives a background to demand and energy forecasts. The IMO's 2005 SOO also benefits from an additional 12 months of data relative to the 2004 GSR.

199. The Authority notes the explicit link between forecast increases in maximum (peak) demand (MW), forecast energy (MWh) and the effect upon demand driven capital expenditure. This is an area in which Western Power has proposed significant increases in both its transmission and distribution network demand related capital expenditure. The assessment of the proposed capital expenditure increases is addressed in the Capital Expenditure and Investment Adjustment Mechanism sections of this draft decision.

200. Western Power noted at the time of submission of its proposed access arrangement that it had not yet been able to reconcile the inconsistency of its transmission energy forecasts with the forecast produced by the IMO.[84]

201. However, Western Power stated:

> … that the information presented demonstrates that Western Power's transmission demand and energy forecasts are robust and fit for purpose. In particular, the forecasts used are broadly consistent with the GSR forecast, taking account of the need for more detailed transmission demand forecasts in order to inform Western Power's transmission investment plans.[85]

202. At the time of publication of this draft decision Western Power had not provided any rationale for the variances between its submission and the 2005 SOO, or the IMO revised forecasts.

203. Following the publication of the Authority's issues paper the IMO identified the reasons for the variance between the 2004 GSR and 2005 SOO figures which has further refined its methodology and crystallised the main causes of the variances.

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[83] IMO, page 8.

[84] Access arrangement information, page 49.

[85] Access arrangement information, page 49.

As a result the IMO has released revised sent-out energy forecasts as shown above at Table 8.

204. The Authority notes that NIEIR completed both the 2004 GSR and 2005 SOO assessments and that it undertakes electricity forecasting for a number of utilities and regulators within the National Electricity Market.

205. The IMO has detailed the principal causes for the forecasting variances which includes a markedly lower average growth rate for energy forecasts of approximately 2.5 per cent for the period 2005/06 to 2009/10 (averaged across residential, commercial and industrial users), compared to an average growth estimate of 3.3 per cent for the period 2004/05 to 2013/14 in Western Power's 2004 GSR.

206. This aligns with the IMO's observation in its 2005 SOO that energy sent out is forecast to grow at an annual rate of 2.5 per cent in the expected growth rate scenario and at 3.5 per cent and 1.7 per cent in the high and low cases respectively. These figures are less than the growth rates for annual peak demand and indicate that the system peaks are becoming more significant over time. The IMO notes that this is consistent with the increasing proportion of maximum demand being driven by air conditioning loads.[86] The IMO also noted that "all determination of capacity requirements are based on the maximum demand criterion …".[87]

207. The Authority has had regard to the IMO's submission and the explanation and analysis therein that reconciles the variances between the 2004 GSR and the IMO's adjusted forecasts.

208. The effect of increases in maximum demand and energy forecasts on demand driven capital expenditure are also considerations for establishing reference tariffs. Western Power has proposed a combination of energy based[88], demand based[89] and unmetered tariffs.[90] The assessment of the proposed tariffs in accordance with the Access Code's requirements is addressed in the Pricing Methods and Price Lists sections of this draft decision.

209. While forecasts reflect best estimates, based on the available data at a point in time, they are important to the determination of the reference tariffs applicable to the reference services in the SWIN. It is highly likely that actual demand for any given year is likely to be different to an ex-ante forecast. The Authority notes that Western Power's proposed "K factor" adjustment within its annual price control mechanism will, over the regulatory period, mitigate the effect on either Western Power or users of any material annual differences between forecast and actual energy demand.

210. The Authority notes the interrelationship between maximum demand forecasts and network capacity. To ensure transparency over time in relation to actual network performance and demand the Authority will be issuing regulatory reporting guidelines for Western Power to routinely report on key performance criteria. This

[86] IMO (2005a), page 21.

[87] IMO (2005a), page 26.

[88] Reference tariffs RT 1-4.

[89] Reference tariffs RT 5-8, 11 and TRT 1-2.

[90] Reference tariffs RT 9, 10.

will include feeder performance and the identification of constraints and is addressed in the Service Standard Benchmarks and Regulatory Reporting Information sections of this draft decision.

211. Having regard to the Code objective the Authority's view is that the IMO's revised energy forecasts, based on their currency relative to Western Power's forecasts and the analysis underpinning the IMO's revised forecasts, are preferred.

Required Amendment 16

Western Power to revise its forecast transmission energy, having regard to the Independent Market Operator's submission "sent out energy forecasts" for the period 2006/07 to 2008/09 at the expected growth rates in accordance with Table 6 above.

Required Amendment 17

Western Power to revise its maximum demand forecasts.

Required Amendment 18

Western Power to revise its forecast distribution energy sales in light of the reduction in forecast sent out energy.

Required Amendment 19

Western Power to revise the reference tariffs applicable to the reference services to reflect the changes in transmission and distribution energy forecasts.

Price Control

Access Code Requirements

212. Subchapter 6.1 of the Access Code addresses target revenue. The form of price control required for the first access arrangement is described in section 6.2(a) of the Access Code with the note relating to section 6.2(a) of the Access Code providing additional clarity as to the permissible types of price control:

> 6.2 Without limiting the forms of price control that may be adopted, price control may set target revenue:
>
> (a) by reference to the service provider's approved total costs; or
>
> {Note: This includes "revenue cap" price controls based on controlling total revenue, average revenue or revenue yield and "price cap" price controls based on cost of service.}
>
> (b) by setting tariffs with reference to:
>
> (i) tariffs in previous access arrangement periods; and
>
> (ii) changes to costs and productivity growth in the electricity industry;
>
> {Note: This includes "price cap" price controls based on controlling the weighted average of tariffs or individual tariffs.}
>
> or
>
> (c) using a combination of the methods described in sections 6.2(a) and 6.2(b).

213. Section 6.3 of the Access Code requires that for the first access arrangement the form of price control must be as described in section 6.2(a) of the Access Code.

214. Sections 6.4 and 6.5 of the Access Code detail price control objectives.

> 6.4 The price control in an access arrangement must have the objectives of:
>
> (a) giving the service provider an opportunity to earn revenue ("target revenue") for the access arrangement period from the provision of covered services as follows:
>
> (i) an amount that meets the forward-looking and efficient costs of providing covered services, including a return on investment commensurate with the commercial risks involved;
>
> plus:
>
> (ii) for access arrangements other than the first access arrangement, an amount in excess of the revenue referred to in section 6.4(a)(i), to the extent necessary to reward the service provider for efficiency gains and innovation beyond the efficiency and innovation benchmarks in a previous access arrangement;
>
> {Note: The presence of section 6.4(a)(ii) provides incentive to a service provider during an access arrangement period to pursue efficiency gains and innovation beyond the efficiency and innovation benchmarks in the access arrangement, because the service provider may be rewarded in the calculation of the target revenue for subsequent access arrangement periods.}
>
> plus:
>
> (iii) an amount (if any) determined under section 6.6;

plus:

(iv) an amount (if any) determined under section 6.9;

plus:

(v) an amount (if any) determined under an investment adjustment mechanism (see sections 6.13 to 6.18);

plus:

(vi) an amount (if any) determined under a service standards adjustment mechanism (see sections 6.29 to 6.32);

and

(b) enabling a user to predict the likely annual changes in target revenue during the access arrangement period; and

(c) avoiding price shocks (that is, sudden material tariff adjustments between succeeding years).

6.5 The amount determined in seeking to achieve the objective specified in section 6.4(a)(i) is a target, not a ceiling or a floor.

215. Subchapter 6.2 addresses calculating a service provider's costs in relation to both non capital and capital costs, determining the capital base, calculating the weighted average cost of capital (**WACC**) and the application of depreciation to the network assets comprising the capital base.

216. Subchapter 6.3 provides that a service provider may apply at any time to the Authority for approval of costs.

Target Revenue

Access Code Requirements

217. Price control objectives for an access arrangement are prescribed in section 6.4 of the Access Code and include giving a service provider the opportunity to earn target revenue for the access arrangement period from the provision of covered services; enabling a user to predict the likely annual changes in target revenue; and avoiding price shocks.

Tariff equalisation contributions

218. Amendments to the Access Code were gazetted 8 November 2005. Principal changes to the Access Code were in relation to the inclusion of sections providing for tariff equalisation contributions to the Tariff Equalisation Fund[91] and the deletion of a reference which previously precluded the inclusion of capital contributions in the capital base.[92]

219. The tariff equalisation contributions amendments provide for the contributions to be added to distribution related target revenue and prescribe that they may only be recovered as a tariff component for reference services in respect of distribution system exit points. The amendments are reproduced below.

[91] WA Government Gazette 207/2005, insertion of Access Code sections 6.37A and 7.12.

[92] WA Government Gazette 207/2005, deletion of Access Code section 6.56.

Tariff equalisation contributions may be added to target revenue

6.37A If the service provider for the covered network that is covered under section 3.1 is or will be required to make a tariff equalisation contribution to the Tariff Equalisation Fund under Part 9A of the Act during an *access arrangement* period, then an amount may be added to the target revenue for the covered network for the Access Arrangement period, which amount—

(a) must not exceed the total of the tariff equalisation contributions which are or will be required to be made during the Access Arrangement period; and

(b) must be separately identified as being under this section 6.37A.

{Note: Section 7.12 deals with how the amount added under this section 6.37A is to be allocated as tariff components.}

Tariff equalisation contributions must be included as a tariff component for distribution network users

7.12 If an amount is added to the target revenue under section 6.37A, then:

(a) the service provider's Access Arrangement must include a tariff component for one or more reference services to recover the amount; and

(b) a tariff component under section 7.12(a) must—

(i) apply only to users of reference services provided in respect of exit points on the distribution system;

(ii) be equitable in its effect as between users referred to in section 7.12(b)(i); and

(iii) otherwise be consistent with the Code objective.

220. The Western Australian Treasurer determines the amount of tariff equalisation contributions to be collected in a given year which is notified by publication in the Western Australian Government Gazette.

221. At the time of finalising this draft decision the Treasurer's determination for the first access arrangement period had not been finalised. It is anticipated that the Treasurer's determination for the required level of tariff equalisation contributions will be published in the Gazette during the second quarter of 2006. As an interim measure an estimate of $60 million per annum for the first access arrangement period has been included as a reasonable proxy. Once the actual tariff equalisation contribution amounts have been gazetted the Authority will amend the distribution revenue requirement prior to its final decision.

Western Power's Proposal

Form of price control

222. Western Power has proposed a methodology whereby it determines its annual Covered Services Maximum Allowed Revenue (**CSMAR**) which represents the sum of annual transmission maximum allowed revenue (**TMAR**) and distribution maximum allowed revenue (**DMAR**). TMAR and DMAR are proposed to be determined based upon an average transmission and distribution revenue yield (**TARY** and **DARY** respectively) multiplied by actual energy transported.[93]

[93] Access Arrangement, page 9.

223. TARY and DARY are derived in Western Power's proposed financial models from a revenue cap determined by a building block approach to calculate an annual aggregate revenue requirement (**AARR**) for year one only, which is divided by forecast energy (**FE**). For years two and three of the initial access arrangement period TARY and DARY are then escalated by a CPI-X approach.

224. Appendix 7 of Western Power's proposed access arrangement is intended to provide further information in relation to its price control and revenue setting methodology. However, Western Power states:[94]

> Appendix 7 does not use the same algebraic terms as those used in sections 5.14 to 5.33, but the methodology described in Appendix 7 is consistent with the price control formulae set out in sections 5.14 to 5.33 of this Access Arrangement.

225. In appendix 7 Western Power also states: [95]

> This paper defines the processes and associated formulae that enable the determination of the network business average price path and the associated target revenue entitlements over the Access Arrangement period. The target revenue is separately determined for the distribution and transmission network businesses.
>
> The form of price control governing access to both Western Power's transmission and distribution networks is an incentive-based "Average Revenue Yield" regime. The rate of return is defined as "pre-tax real" and all formulae are designed to reflect this approach.

And:[96]

> The process to derive the average price path for this regime is as follows:
>
> 1. Determine the aggregate revenue requirement for each year of the Access Arrangement period,
> 2. Forecast network energy consumption for each year of the Access Arrangement period, and
> 3. Develop an average price path (or average revenue yield) to achieve the forecast target revenue over the Access Arrangement period.

226. Appendix 7 also provides details regarding Western Power's calculation of its AARR comprising network, metering and non-network asset categories and is based upon a cost of service approach.[97]

[94] Access Arrangement, clause 5.3.

[95] Access Arrangement, Appendix 7, Section 1.

[96] Access Arrangement, Appendix 7, Section 1.

[97] Access Arrangement, Appendix 7, Section 2.1.

Side constraints

227. Western Power has proposed to apply "side constraints" on reference tariff adjustments such that for the financial years commencing 1 July 2007 and 1 July 2008: [98]

- Western Power will not increase or decrease any component of a reference tariff by more than CPI+2 per cent per annum; and
- Western Power will not increase or decrease any individual reference tariff by more than CPI+2 per cent per annum.

Tariff equalisation contribution

228. Western Power noted the then imminent tariff equalisation contribution amendment to the Access Code and included a provisional cost of $60 million per annum which it reflected in its proposed reference tariffs.[99]

Working capital

229. Western Power has proposed that a return on working capital (at the regulatory WACC) be included in determining its target revenue requirement for its network assets. Western Power's proposed values of working capital and returns on working capital are summarised in Table 9 and Table 10.

Table 9 Western Power proposed transmission network working capital costs in nominal terms[100]

Transmission network	Year ending	2007	2008	2009
Working Capital ($M)		8.8	14.5	18.0
Return on Working Capital ($M)		**0.9**	**1.5**	**1.8**

Table 10 Western Power proposed distribution network working capital costs in nominal terms[101]

Distribution network	Year ending	2007	2008	2009
Working Capital ($M)		38	46	49
Return on Working Capital ($M)		**4**	**5**	**5**

230. Except for the data in the above tables, Western Power has not provided any additional information in its proposed access arrangement or access arrangement information on the basis for its working capital requirements.

[98] Access Arrangement, page 3.
[99] Access arrangement information, page 123.
[100] Access arrangement information, page 97.
[101] Access arrangement information, page 125.

Non-reference services

231. Western Power has not provided any estimate of what amount of its target revenue is attributable to non-reference services.

Interested Party Submissions

232. The Authority received two submissions that related to its assessment of the proposed price list and side constraints.

Price list

233. Alinta submits:[102]

> … clause 1.7(f) of the proposed access arrangement should be amended to insert the word "reference" in front of the word "tariffs". As it currently stands, clause 1.7(f) explains that Appendix 6 governs the "application of the tariffs set out in the price list". To the extent that the Price List does, or is intended to, contain tariffs other than reference tariffs, Alinta questions whether this is consistent with the concept of a price list under the Code.

Effect of side constraints on retail markets

234. Alinta notes that there is effectively a cap on electricity prices for certain sectors in retail markets served by the SWIN and that this exists by virtue of the State Government's control over Western Power's retail prices and its stated intention to not increase those prices in coming years. Alinta queries whether side constraints of CPI+2 per cent on network tariffs will deter or hinder the development of viable competition in these retail markets given the potential effect of that cap, contrary to the Code objective.

Authority's Assessment

Total Costs and Revenue[103]

235. In relation to the approved total costs and total revenue to be ascribed to Western Power's price control the Authority has assessed Western Power's proposed initial capital base, capex and opex and its determination on these matters is set out in the Network Valuation, Capital Expenditure and Operating and Maintenance Expenditure specific sections of this draft decision respectively. Western Power's capital base and total costs are summarised in Table 11 and Table 12 respectively.

236. In appendix 7 of Western Power's proposed access arrangement AARR is calculated on a cost of service basis to determine a "gross" annual revenue requirement. However in its access arrangement information Western Power deducts "miscellaneous services revenue" from its distribution network annual revenue requirement. There is no miscellaneous services revenue identified for transmission network revenues. Accordingly it is unclear whether Western Power proposes that AARR is to be fully recovered by reference tariffs, per clause 5 and

[102] Alinta, page 8.

[103] Calculated values presented in this document (including target revenue, capex, opex and depreciation etc) may vary from that presented in the tariff model as a consequence of the capital base, capex and opex used in the tariff model having a higher degree of accuracy than shown in this document.

appendix 7 of its proposed access arrangement, or if a net amount (that is less miscellaneous services revenue) is to be recovered from reference services in accordance with Western Power's access arrangement information.[104]

237. For transparency and in accordance with the Access Code requirements for determining target revenue on the basis of approved total costs, the Authority has interpreted Western Power's AARR as being analogous to target revenue. This is consistent with Western Power's proposed access arrangement. However in

238. Table 14 and Table 15 the Authority has then explicitly identified any variations to target revenue due to capital contributions, tariff equalisation contributions and miscellaneous services revenue to determine net revenue to be recovered by reference tariffs. The Authority has identified a number of required amendments in this draft decision to remove any ambiguity as to what revenues are to be recovered from reference tariffs and what revenues are forecast from non-reference services.

239. The Authority's consideration of non-reference services has been addressed in the Assessment of proposed non-reference services section of this draft decision.

240. In accordance with the requirements of Subchapter 6.1 of the Access Code the Authority has assessed Western Power's revenues for each of the financial years ending 30 June for the initial access arrangement period. These are summarised in Table 13.[105] The composition of the target revenues for the distribution and transmission networks is provided at Table 14 and Table 15 respectively.

[104] Access arrangement information, page 125.

[105] Information from the Authority's financial model used to calculate Western Power's total revenue is provided as Appendix 5 of this draft decision (although it is published as a separate document).

Table 11 Western Power's capital base ($ million real as at 30 June 2006)

Asset	Remaining Life as at 30 June 2006 (years)	Value
Distribution		
Wooden Pole Lines	14.20	444.84
Underground Cables	34.94	489.76
Transformers	16.42	190.29
Switchgear	12.89	99.80
Street lighting	1.20	5.20
Meters and Services	8.90	157.90
IT&T	25.15	20.10
SCADA & Communications	25.15	12.43
Other Distribution Non-Network	25.15	43.47
Distribution Land & Easements	-	16.90
Total Distribution		**1,480.70**
Transmission		
Transmission cables	38.17	12.03
Transmission steel towers	41.10	353.92
Transmission wood poles	20.89	172.41
Transmission Metering	25.97	2.11
Transmission transformers	25.59	154.40
Transmission reactors	27.00	3.91
Transmission capacitors	23.06	75.81
Transmission circuit breakers (and Site)	28.27	453.22
SCADA and Communications	11.18	32.71
IT&T	3.38	4.17
Other Non-Network Assets	9.77	19.92
Land & Easements	-	86.78
Total Transmission		**1,371.40**
SWIN Total		**2,852.10**

Table 12 Western Power's costs ($ million real as at 30 June 2006)

Financial year ending:		30 June 2007	30 June 2008	30 June 2009
Capital Expenditure	Distribution	226.71	241.36	259.78
	Transmission	174.47	156.87	158.23
	SWIN Total	**401.18**	**398.23**	**418.01**
Operations and Maintenance Expenditure	Distribution	144.16	142.01	143.90
	Transmission	70.48	71.37	71.33
	SWIN Total	**214.65**	**213.38**	**215.23**

Table 13 Western Power's gross revenue requirements ($ million real as at 30 June 2006)

Financial year ending:	30 June 2007	30 June 2008	30 June 2009	Present Value
Distribution	322.78	331.72	348.08	891.99
Transmission	201.73	213.51	222.51	567.16
SWIN Total	**524.51**	**545.23**	**570.59**	**1,459.15**

Table 14 Composition of Western Power's distribution network revenue ($ million real as at 30 June 2006)

Financial year ending:	30 June 2007	30 June 2008	30 June 2009	Present Value
Distribution				
Opex	144.16	142.01	143.90	**383.21**
Depreciation	89.77	92.88	98.66	**250.19**
Redundant Assets (Accelerated Depreciation)	-	-	-	**-**
Return on Assets	88.84	96.83	105.51	**258.58**
Return on Working Capital	-	-	-	**-**
Gross Required Revenue	**322.78**	**331.72**	**348.08**	**891.99**
Miscellaneous Services Revenue	-6.21	-6.06	-5.90	**-16.21**
Tariff Equalisation Contribution[106]	58.49	57.02	55.59	**152.60**
Capital Contribution	-88.37	-87.85	-88.40	**-235.78**
Net Tariff Revenue	**286.68**	**294.84**	**309.35**	**792.60**

[106] Western Power submitted an estimate of $60m per annum in nominal terms. Table 14 is in real terms.

Table 15 Composition of Western Power's transmission network revenue ($ million real as at 30 June 2006)

Financial year ending:	30 June 2007	30 June 2008	30 June 2009	Present Value
Transmission				
Opex	70.48	71.37	71.33	**189.91**
Depreciation	48.96	52.33	55.09	**139.01**
Redundant Assets (Accelerated Depreciation)	-	-	-	**-**
Return on Assets	82.28	89.81	96.09	**238.24**
Return on Working Capital	-	-	-	**-**
Gross Required Revenue	**201.73**	**213.51**	**222.51**	**567.16**
Miscellaneous Services Revenue	-	-	-	**-**
Tariff Equalisation	-	-	-	**-**
Capital Contribution	-13.65	-2.57	-	**-15.16**
Net Tariff Revenue	**188.08**	**210.95**	**222.51**	**552.00**

241. The Authority's assessment of depreciation by asset class for both the capital base and capex underpinning the derivation of target revenue and in accordance with the required amendments of this draft decision is provided in Table 16 and Table 17 respectively.

Table 16 Capital Base depreciation by asset class ($ million real as at 30 June 2006)

Financial year ending:	30 June 2007	30 June 2008	30 June 2009
Distribution capital base			
Wooden Pole Lines	31.33	31.11	30.88
Underground Cables	14.02	14.02	14.02
Transformers	11.59	11.54	11.49
Switchgear	7.74	7.72	7.71
Street lighting	4.33	0.87	-
Meters and Services	17.74	17.74	17.74
IT&T	0.80	0.80	0.80
SCADA & Communications	0.49	0.49	0.49
Other Distribution Non-Network	1.73	1.73	1.73
Distribution Land & Easements	-	-	-
Total Distribution depreciation	**89.77**	**86.02**	**84.86**
Transmission capital base			
Transmission cables	0.32	0.32	0.32
Transmission steel towers	8.61	8.61	8.61
Transmission wood poles	8.25	8.25	8.25
Transmission Metering	0.08	0.08	0.08
Transmission transformers	6.03	6.03	6.03
Transmission reactors	0.14	0.14	0.14
Transmission capacitors	3.29	3.29	3.29
Transmission circuit breakers (& Site)	16.03	16.03	16.03
SCADA and Communications	2.93	2.93	2.93
IT&T	1.23	1.23	1.23
Other Non-Network Assets	2.04	2.04	2.04
Land & Easements	-	-	-
Total Transmission depreciation	**48.96**	**48.96**	**48.96**
Total capital base depreciation	**138.73**	**134.98**	**133.82**

Table 17 Capital Expenditure depreciation by asset class ($ million real as at 30 June 2006)

Financial year ending:	30 June 2007	30 June 2008	30 June 2009
Distribution capex			
Wooden Pole Lines	-	1.21	2.73
Underground Cables	-	1.54	3.12
Transformers	-	0.79	1.52
Switchgear	-	0.61	1.29
Street lighting	-	0.56	1.12
Meters and Services	-	0.17	0.48
IT&T	-	1.46	2.52
SCADA & Communications	-	0.21	0.37
Other Distribution Non-Network	-	0.31	0.64
Distribution Land & Easements	-	-	-
Total Distribution	**-**	**6.86**	**13.81**
Transmission capex			
Transmission cables	-	0.12	0.27
Transmission steel towers	-	0.87	1.43
Transmission wood poles	-	0.08	0.26
Transmission Metering	-	-	-
Transmission transformers	-	0.51	0.95
Transmission reactors	-	0.00	0.00
Transmission capacitors	-	0.12	0.20
Transmission circuit breakers (& Site)	-	0.94	1.76
SCADA and Communications	-	0.12	0.18
IT&T	-	0.34	0.57
Other Non-Network Assets	-	0.27	0.50
Land & Easements	-	-	-
Total Transmission	**-**	**3.37**	**6.12**
Total capex depreciation	**-**	**10.23**	**19.93**

242. The Authority's assessment of the Western Power's resultant network asset values is summarised in Table 18.

Table 18 Assessment of Western Power's network asset values ($ million real as at 30 June 2006)

Financial year ending:	30 June 2006	30 June 2007	30 June 2008	30 June 2009
Distribution				
Opening Asset Value		1,480.70	1,613.82	1,758.58
Capex		226.71	241.36	259.78
Asset Disposal		-3.82	-3.72	-3.63
Depreciation		-89.77	-92.88	-98.66
Closing Asset Value	1,480.70	1,613.82	1,758.58	1,916.07
Transmission				
Opening Asset Value		1,371.40	1,496.91	1,601.45
Capex		174.47	156.87	158.23
Asset Disposal		-	-	-
Depreciation		-48.96	-52.33	-55.09
Closing Asset Value	1,371.40	1,496.91	1,601.45	1,704.59
SWIN total Closing Asset Value	**2,852.10**	**3,110.73**	**3,360.03**	**3,620.66**

Form of price control

243. Western Power has proposed a form of price control that determines its maximum annual allowable revenue on the basis of actual volumes with various intra period adjustments during the initial access arrangement period.

244. As noted at paragraph 224, section 5 of its proposed access arrangement and Appendix 7 do not use the same algebraic terms.[107]

245. Notwithstanding the potential for confusion arising from the different nomenclature adopted, Appendix 7 also differs in methodology from section 5 of Western Power's proposed access arrangement in a number of areas creating additional ambiguity. For example, section 5 of the access arrangement references the application of a nominal WACC whereas the Appendix 7 summary advises:[108]

> … the rate of return is defined as "pre-tax real" and all formula are designed to reflect this approach.

[107] Access arrangement, page 6.

[108] Access arrangement, Appendix 7, page 3.

246. Further, the X factors applied in section 5 of the proposed access arrangement are not described but are referred to as the "real price adjustment factor" on page 4 of Appendix 7. However, Appendix 7 goes on to explain the purpose of the X factor as a revenue smoothing factor only, which is consistent with Western Power's proposed revenue models.[109]

247. "Target Revenue" is also defined differently between Appendix 7 of the proposed access arrangement and the access arrangement information. Therefore the access arrangement information discussion on the characteristics of the revenue yield price control does not align with the proposed access arrangement methodology.[110]

248. Where inconsistencies occur in Western Power's proposal the Authority has assessed Western Power's Appendix 7 to its access arrangement as being subordinate to section five of its proposed access arrangement. Accordingly, Appendix 7 is only referred to where the relevant material is not addressed in Western Power's proposed access arrangement and/or a material difference warrants being noted. To ensure consistency and comparability the Authority has adopted Western Power's nomenclature and re-stated the relevant parameters in this section.

249. Although no reference is made in clause five of its proposed access arrangement Western Power describes its proposed form of price control as an "incentive based average revenue yield regime" in Appendix 7 of its proposed access arrangement. In its access arrangement information Western Power provided its view on limitations of various forms of price controls in support of its "revenue yield" approach including:[111]

> Issues associated with demand forecast error can be mitigated by adopting a robust and rigorous approach to demand forecasting as part of preparing the Access Arrangement.

250. The Authority acknowledges the difficulties associated with demand forecasting. As noted in the demand forecasts section of this draft decision Western Power has not been able to reconcile the variances between its forecasts and those of the IMO. Western Power has asserted that "de-coupling" target revenue (as defined in the access arrangement information) and actual revenue is consistent with providing "strong incentives for efficiency gains".[112]

251. The Authority is required to assess target revenue for each year of the access arrangement period in accordance with the requirements of sections 6.2(a) and 6.3 of the Access Code by reference to the service provider's approved total costs. The Authority considers that Western Power's proposal for "de coupling" target revenue from the approved total costs is not consistent with the chapter 6 requirements of the Access Code.

252. The Authority notes that a revenue yield methodology could be applicable where it can be demonstrated that there is a high level of confidence in the demand forecasts underpinning a revenue yield approach, adequate incentives exist not to

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[109] Access arrangement, Appendix 7, page 20.

[110] Access arrangement, Appendix 7, page 27. Access arrangement information, page 153.

[111] Access arrangement information, page 152.

[112] Access arrangement information, page 153.

understate demand forecasts and/or appropriate mechanisms to adjust for variances between forecast and actual demand exist on an ex-post basis. This is different to Western Power's proposed form of a revenue yield approach.

253. Western Power has only provided detail regarding the determination of its AARR, on a cost of service basis, in Appendix 7 of its proposed access arrangement. Western Power has defined the AARR for the network business as follows:

Equation 1[113]

$$AARR = NAARR + MAARR + NNAARR + NAARR(IAM)$$

where

NAARR	=	network AARR.
MAARR	=	metering AARR.
NNAARR	=	non-network AARR.
NAARR(IAM)	=	network investment adjustment mechanism AARR

254. Each of the above parameters includes a "capital contributions revenue reduction" amount. The Authority's assessment regarding the treatment of accumulated historical capital contributions (prior to 30 June 2006) in relation to determining Western Power's initial capital base is detailed in the Network Valuation section of this draft decision. The Authority's required amendment simplifies the determination of AARR such that it is equal to:[114]

Equation 2

$$AARR = NAARR + MAARR + NNAARR$$

where

NAARR	=	network AARR which is equivalent to Western Power's proposed NARR.
MAARR	=	metering AARR which is equivalent to Western Power's proposed MARR.
NNAARR	=	non-network AARR which is equivalent to Western Power's proposed. NNARR.

255. In relation to the determination of NARR, MARR and NNARR the Authority notes the price control objective at section 6.4(b) of the Access Code is to enable a user to predict the likely annual changes in target revenue during the access arrangement period. Western Power has proposed a set of depreciation charges in Appendix 7 of its proposed access arrangement that do not reconcile with the depreciation methodology proposed by it at section 6 of its proposed access arrangement.

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[113] Access arrangement information, Appendix 7, page 6.

[114] The omission of NAARR(IAM) is addressed in the Investment Adjustment Mechanism section of this draft decision. The Authority notes that Western Power's derivation of NARR, MARR and NNARR (i) contains errors in the application of the WACC, (ii) is different to the Authority's end of year revenue modelling assumption, and (iii) contains various depreciation elements which are addressed in the Depreciation section of this draft decision.

256. Western Power's proposals on price control and target revenue determination contain internal inconsistencies and ambiguity arising between its proposed access arrangement section 5, Appendix 7 and access arrangement information making it difficult for an applicant to understand. A required consideration for the Authority is section 2.1 of the Access Code which promotes transparency in the revenue determination process. Accordingly, the Authority has assessed that Western Power's determination of NARR, MARR and NNARR do not meet the Access Code's price control objectives.

257. Western Power's target revenue (which is analogous to the AARR terminology used in Equation 2) has been assessed by adopting an end of year timing assumption for modelling revenues[115] and expenses in real terms and is determined by the Authority as:

Equation 3

$$TR_t = r.RAB_{t,open} + Dep_t + O\&M_t$$

where

TR_t	=	target revenue in year t.
r	=	WACC (real pre-tax).
$RAB_{t,open}$	=	opening value of the regulatory asset base.
Dep_t	=	depreciation in year t.
$O\&M_t$	=	forecast of operating and maintenance costs for year t.

258. Western Power has not provided any explicit link in its proposed access arrangement submission between the determination of the AARR and its relationship to its formula at clause 5 of its proposed access arrangement. Following an additional information request to Western Power by the Authority it was determined from Western Power's revenue models that the $TARY_t$ and $DARY_t$ values are derived from the AARR for transmission and distribution respectively for each year of the access arrangement period. These parameters are explained in the equations below.

259. The Authority notes Western Power refers to TARY and DARY as the "maximum average price per unit transmitted/distributed within the SWIS in a financial year" for transmission and distribution respectively.[116] However TARY and DARY bear no relationship to the actual reference tariffs applicable to the reference services.

260. Western Power has proposed a Covered Services Price Control which determines its total maximum allowed revenue ($CSMAR_t$) for the provision of covered services. Western Power proposes that the price control applies annually on a financial year

[115] Western Power's revenue calculations also assume that depreciation of capex for a given year is calculated on the basis of half of the capex occurring in the middle of the year and the remainder at the end of that year. The Authority in its calculations has assumed that all forecast capex occurs at the end of each relevant year. The effect of this assumption is to align the timing of forecast capex with that of all other costs and revenues, which are assumed to occur at the end of each relevant year.

[116] Access arrangement information, pages 10 and 12.

basis for the duration of the access arrangement and proposes that CSMAR be calculated as the sum of the transmission and distribution elements such that:[117]

Equation 4

$$CSMAR_t = TMAR_t + DMAR_t$$

where:

$TMAR_t$	=	Western Power's maximum allowed revenue for its transmission network business in financial year t, calculated in accordance with sections 5.17 to 5.23 of its proposed *access arrangement*.
$DMAR_t$	=	Western Power's maximum allowed revenue for its distribution network business in financial year t, calculated in accordance with sections 5.27 to 5.33 of its proposed *access arrangement*.

Transmission price control

261. The Transmission Network Business Price Control determines the maximum allowed revenue ($TMAR_t$) for Western Power's transmission network business in financial year t. The annual revenue that is subject to the Transmission Network Business Price Control includes revenue from covered services plus any capital contributions received in accordance with Western Power's capital contributions policy.

262. For the first access arrangement period Western Power has proposed that transmission price control parameters be determined as follows:

Equation 5

$$TMAR_t = TARY_t * TQ_t + FQE_t + TK_t$$

where

$TARY_t$	=	the maximum average price per unit transmitted within the SWIS in financial year t calculated in accordance with sections 5.20 and 5.21 of the proposed access arrangement.
TQ_t	=	Western Power's actual energy imported into the transmission network in financial year t.
FQE_t[118]	=	Western Power's revenue allowance in respect of the forecast qualifying capital expenditure described in section 5.26 which relates to the investment adjustment mechanism.
TK_t	=	is the correction factor calculated in accordance with sections 5.20 and 5.22 of Western Power's proposed access arrangement which takes account of any difference between the maximum allowed transmission network business revenue in financial year t-1 and the actual transmission network business revenue in financial year t-1.

[117] Access Arrangement, page 9.

[118] The treatment of capital expenditure is addressed in the section on the Investment Adjustment Mechanism of this draft decision.

For the financial year commencing on 1 July 2006:

$TARY_t$ = 1.636289 ¢/kWh; and

TK_t = 0

For financial years commencing on 1 July 2007 and 1 July 2008:

Equation 6

$$TARY_t = TARY_{t-1} * (1 + CPI_t - TX_t)$$

where

$(1+CPI_t)$ has the effect of "CPI adjusted" as defined in section 14.26 of the Access Code.

TX_t = 0.0016 (applied as a smoothing factor only and derived from Western Power's proposed revenue model).

263. As noted above the X factors applied in section 5 of the proposed access arrangement are referred to as a "real price adjustment factor" on page 4 of Appendix 7 of the proposed access arrangement. Following review of Western Power's proposed revenue models the Authority has confirmed that Western Power has applied an X factor as described in Section 3 of Appendix 7 of its proposed access arrangement. That is, the X factor has been applied as a smoothing factor only and not as a real price reduction mechanism. This is consistent with Appendix 7 which explains the purpose of the X factor as a smoothing factor only.[119] The Authority notes that the application of an X factor for revenue smoothing purposes is to provide a present value equivalent outcome, relative to unsmoothed target revenue and be independent of any inflation adjustment factor.

264. The Authority notes the requirements of sections 6.2(a) and 6.3 of the Access Code. As proposed by Western Power its AARR, which is related to the service provider's approved total costs, is only determined in the first year of the access arrangement period. Thereafter there is no direct linkage between annual costs and target revenue as it can vary due to changes in actual inflation, via the application of the "CPI adjusted" amount pursuant to section 14.26 of the Access Code. Additionally, any variations between forecast and actual demand would mean further divergence between actual revenues recovered (CSMAR) and the objective of section 6.2(a) of the Access Code. This potential for divergence could be mitigated via the application of a reasonable correction factor for which Western Power's proposal is discussed below.

[119] Access arrangement, Appendix 7, page 20.

265. For financial years commencing on 1 July 2007 and 1 July 2008 Western Power proposes:

Equation 7

$$TK_t = (TMAR_{t-1} - ATR_{t-1}) * (1+WACC_{nom})$$

where

$TMAR_{t-1}$ = the maximum allowed revenue for Western Power's transmission network business in the previous financial year.

ATR_{t-1} = the actual transmission network business revenue earned in relation to the provision of covered services plus any capital contributions in the previous financial year.

266. The derivation therefore of an equitable K factor adjustment in accordance with Equation 7 becomes ineffectual as both $TMAR_{t-1}$ and ATR_{t-1} are derived from actual demand, with ATR also including the relevant year's capital contributions. For example:

- in the event of a year with zero capital contributions, TMAR would equate to ATR which is unlikely to meet the Access Code section 6.4(a) objective of giving a service provider an opportunity to earn target revenue in accordance with the Access Code section 6.2(a) requirement which is by reference to approved total costs; or
- in the event of a year with capital contributions Western Power's proposed K factor would be positive, but not in a manner consistent with the Access Code section 6.4(a) objective. Nor is Equation 7 consistent with Western Power's proposal for capital contributions which is assessed in the Capital Contributions section of this draft decision.

267. Given that the ex-ante objective is to determine target revenue and then derive tariffs to ensure that forecast demand will deliver the required target revenue, Western Power's proposed revenue yield approach, coupled with the above K factor adjustment is assessed as not meeting the Access Code objectives. Additionally, the price control object related to a user's ability to understand annual changes in target revenue is unlikely to be attainable.

268. The Authority also notes that Western Power's proposed methodology for determining CSMAR in accordance with Equation 4, which is based on actual energy transported in a year (TQ_t), does not comply with the Access Code section 6.4(a) objective of giving a service provider an opportunity to earn target revenue in accordance with the Access Code section 6.2(a) requirement which is by reference to approved total costs.

Revenue Adjustment Mechanism

269. The Authority notes that Western Power's revenue yield (TARY and DARY) parameters in year one are based on the network AARR, divided by forecast demand, where the AARR represents the target revenue. The Authority considers that an annual adjustment factor (K factor) is appropriate to address under/over recoveries in a symmetrical manner where the target revenue determined with reference to approved total costs differs from actual revenue in a year of the access arrangement period. However to be consistent with the price control objectives and

the Access Code's section 6.2(a) requirements any adjustment must be referenced to approved total costs.

270. Accordingly, the Authority considers that an AARR revenue cap can be determined in accordance with Equation 2 and Equation 3 above. It is the Authority's view that such an amendment to Western Power's proposal will assist in meeting the Access Code subchapter 6.1 requirements for target revenue.

271. A symmetrical end of period "K factor", or revenue adjustment mechanism, can then be transparently applied on an end of year basis and the adjustment can be determined by comparing the AARR with actual revenues obtained from covered services over the same period. An over (under) recovery will occur to the extent that actual revenues exceed (are less than) target revenue, requiring a negative (positive) adjustment to the subsequent year's target revenue. The mechanism should be applied in real terms.

Distribution price control

272. Western Power has proposed a similar methodology in relation to determining its proposed DMAR and DK factors. The same issues identified in the analysis with respect to Western Power's proposed transmission TMAR, and thus the aggregated CSMAR, apply to the proposed distribution price control analysis which is similarly assessed as not meeting the Access Code's Subchapter 6.1 target revenue requirements.

Covered services price control

273. The Authority has assessed that Western Power's covered services price control proposal does not meet the Access Code requirements. Additionally, it is internally inconsistent with various cross referenced parts of Western Power's proposed access arrangement and access arrangement information that it refers to as supporting its proposed methodology. Neither Western Power's proposed access arrangement, nor access arrangement information, contain data describing how it derives reference tariffs from its proposed target revenue. The Authority does not consider Western Power's proposed price control is compliant with the Code objective of promoting economically efficient outcomes.

Non-reference services

274. The Authority notes that target revenue applies to all covered services which includes reference services and non-reference services.[120] As noted in the

275. Reference Services section of this draft decision Western Power's proposal in relation to non-reference services is unclear. The allocation of target revenue between reference services and non-reference services has not been addressed by Western Power in its proposed access arrangement documents which also has implications for the Pricing Methods and Price Lists requirements of the Access Code.

[120] Access Code section 1.3 defines the relevant terms.

Side constraints

276. The Authority has provided its assessment on Western Power's proposed approach to side constraints[121] in the Pricing Methods section of this draft decision.

Tariff equalisation contribution

277. The Authority has included in its assessment of target revenue a provisional amount, pending Ministerial promulgation of the approved TEC amount, of $60 million per annum to be recovered in accordance with section 6.37A of the Access Code.

Accumulated capital contributions

278. As noted in the Network Valuation section of this draft decision Western Power proposed a complex treatment of accumulated capital contributions that raised a number of inter temporal issues regarding the equity of cost allocation and recovery from different categories of users. In accordance with the required amendments in the Network Valuation assessment, parameters related to accumulated capital contributions that are not relevant to the assessment of Western Power's revenue requirements are noted in the Network Valuation section below.

Investment adjustment mechanism

279. As noted in the Investment Adjustment Mechanism (**IAM**) section of this draft decision Western Power has incorrectly applied the IAM to intra-regulatory period revenue adjustments. A comprehensive assessment of the application of the IAM to this access arrangement is set out in the IAM section, including parameters related to intra-period IAM adjustments that are not relevant to the determination of Western Power's revenue requirements.

Working Capital

280. The Authority previously engaged the Allen Consulting Group (**ACG**) to provide a report examining working capital requirements in the context of the AlintaGas Networks proposed access arrangement provisions.[122] Of relevance to the Authority's assessment in relation to Western Power's proposed approach is the ACG analysis which distinguishes between the capital component and operations and maintenance cost component of target revenue. The ACG report noted the timing bias (in favour of the service provider) in determination of the "capital component"' of total revenue, given the generally adopted regulatory approach of an end of year assumption when modelling revenues.[123] Finally the ACG report noted circumstances where the quantum of the capital component timing bias is generally considerably higher than the allowance for working capital justified by reference to the operations and maintenance cost component.

281. The Authority notes also the additional benefit to net cash flow arising from the lag on payments for capital expenditure items (i.e. where an entity ordinarily procures new capital items on terms for payment sometime after delivery).

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[121] Access arrangement, clause 3.9.

[122] Allen Consulting Group (2004).

[123] Allen Consulting Group (2004), page 5. Where the 'capital component' of target revenue is the return on capital and depreciation.

282. The Authority acknowledges the relevance of working capital as a relevant cost consideration, noting that a requirement for compensation for working capital in the Access Code's regulatory framework exists to the extent that a regulated entity faces demonstrable timing differences whereby it pays for its expenses, on average, before it receives payments.

283. As noted above Western Power has not provided supporting detail in its proposed access arrangement or access arrangement information regarding the determination of the quantum of working capital, the rationale for its forecast rates of increase, or details regarding the timing of cash flow payments and receipts, notwithstanding the significant values of working capital (and the return on working capital) proposed for the first access arrangement period.

284. The Authority has considered Western Power's working capital requirements in light of the capital expenditures, revenues and operations and maintenance expenditure. The Authority has determined the revenue lag by reference to Western Power's proposed terms in its standard access contract which comprises unbilled consumption of 15 calendar days (i.e. half of the period prescribed by a monthly invoicing in Western Power's proposed standard access contract) and a maximum time between invoicing and bill payment (accounts receivable) of 14 calendar days. This results in a revenue lag of 29 calendar days.

285. In relation to an estimate of a reasonable proxy for the expense lead, the Authority considers Creditor payment terms of 30 to 60 days as being representative of industry, subject to individual vendor delivery, invoicing and payment terms and conditions. The Authority adopted 30 days as a "worst case scenario", from Western Power's perspective, to assess Western Power's working capital requirements.

286. Based on Western Power's proposed billing terms[124] and the Authority's estimate of the expense lead benefit of 30 days, Western Power will in fact be in a cash surplus position in relation to its working capital requirements for both its transmission and distribution networks for each year of the initial access arrangement period.

287. Given the findings of its analysis, the Authority notes that it is potentially open to it to reduce Western Power's target revenue requirement to account for the cash flow benefits arising from both the capital and operations and maintenance components of working capital. A more precise quantification of the cash flow timing benefit accruing to the capital component could be readily achieved via more detailed modelling of the within year timing of cash flow.

288. The Authority notes the Code objective and has recognised estimated working capital allowances are based on forecasts. While forecasts are subject to independent review and public comment, the very nature of forecasts is that they reflect best estimates at a point in time and are themselves subject to a degree of imprecision and variability. Therefore the Authority has decided not to make a downward adjustment to target revenue at this time. The net benefit for all stakeholders remains by giving Western Power the ongoing incentive to optimise the efficiency of its capital management. Based on the above analysis, the lack of

[124] Section 5.1 of the Access Code requires Western Power to submit a standard access contract for each reference service. The assessment and approval of Western Power's proposed standard access contract is addressed in the Standard Access Contract section of this draft decision.

substantiation provided by Western Power and having regard to the Code objective, the Authority has assessed that it is not appropriate to include a return on working capital in Western Power's target revenue requirement. Accordingly, no working capital allowance has been included in the Authority's assessment of target revenue.

289. Over time, via Western Power's periodic reporting against established performance indicators, interested parties and the Authority will obtain a clearer view of the reliability of Western Power's forecasts. The Authority will be promulgating Regulatory Reporting Information requirements to assist Western Power in this regard. The regulatory reporting information requirements will be released following the finalisation of this access arrangement assessment.

Required Amendment 20

Western Power to amend its determination of AARR (target revenue) in accordance with Equation 3 of this draft decision and adopt a revenue cap form of price control.

Required Amendment 21

Western Power to amend its "K factor" to be determined in accordance with the Authority's assessment in the annual Revenue Adjustment Mechanism. The K factor should explicitly link to approved total costs, compare target (forecast) and actual revenues and be symmetrical (in relation to over or under recoveries against target revenue) in its application.

Required Amendment 22

Western Power to revise the price control clauses of its access arrangement ensuring consistency throughout with the required amendments, methodology and nomenclature described in this draft decision.

Required Amendment 23

Western Power to revise its access arrangement to reflect total costs and target revenues in accordance with Table 11, Table 12, Table 13, Table 14, Table 15, Table 16, Table 17 and Table 18 of the draft decision.

Required Amendment 24

Western Power to confirm its allocation of AARR (target revenue) between reference and non-reference services.

Required Amendment 25

Western Power to confirm the role of the "X factor" in its revenue modelling and demonstrate that it provides a present value equivalent outcome if applied as a revenue smoothing mechanism.

Required Amendment 26

Western Power to delete from its access arrangement, access arrangement information and target revenue any revenue requirement due to a return on working capital for both its transmission and distribution networks.

Unforeseen Events

Access Code Requirements

290. Sections 6.6 to 6.8 of the Access Code permit target revenue to be adjusted for certain unforeseen events for the next access arrangement period in respect of unrecovered costs.

Western Power's Proposal

291. In clause 5.4 of its proposed access arrangement Western Power notes the ability to adjust the target revenue for the next regulatory period for force majeure events and prescribes the proposed methodology in Appendix 7 of its proposed access arrangement.[125]

Interested Party Submissions

292. No submissions were received in relation to unforeseen events.

Authority's Assessment

293. As this is the first access arrangement Western Power has submitted there are no prior year target revenue adjustments to be taken into account in relation to section 6.6 of the Access Code.

294. The Authority considers Western Power's proposal in accordance with section 5.4 of its proposed access arrangement is reasonable. However Western Power's proposed revenue adjustment methodology at Appendix 7, section 10 of its access arrangement is complex and is expressed in nominal terms. In practice any proposed variation to target revenue pursuant to section 6.6 of the Access Code at the next regulatory review will reflect approved variations to target revenue to be carried forward in real terms. Subject to the Authority's assessment for inclusion in target revenue, an unforeseen events allowance can then be included as a line item in the revenue model. Total target revenue for the next access arrangement period can then be smoothed in accordance with the Access Code's section 6.4 price control objectives, in particular 6.4(c) – avoiding price shocks.

[125] Access Arrangement, Appendix 7, Section 10, page 32.

Required Amendment 27

Western Power to amend its access arrangement Appendix 7, section 10 formula to determine in real terms the aggregate allowance proposed to be included at commencement of the next access arrangement period.

Technical Rule Changes

Access Code Requirements

295. Sections 6.9 to 6.12 of the Access Code permit target revenue to be adjusted, either upwards or downwards if, during the previous access arrangement period, the technical rules for the covered network were amended under section 12.53 of the Access Code and subject to the requirements of section 6.9 of the Access Code.

Western Power's Proposal

296. In clauses 5.5 and 5.6 of its proposed access arrangement Western Power notes the ability to adjust the target revenue (either upwards or downwards) for technical rule changes at the next regulatory period and prescribes the proposed methodology in Appendix 7 of its proposed access arrangement.[126]

Interested Party Submissions

297. No submissions were received.

Authority's Assessment

298. As this is the first access arrangement Western Power has submitted there are no prior year target revenue adjustments to be taken into account in relation to section 6.9 of the Access Code.

299. The Authority notes Western Power's proposal in accordance with clauses 5.5 and 5.6 of its proposed access arrangement and proposed adjustment methodology. However, no basis has been provided for the Authority to make an assessment in accordance with section 6.9 of the Access Code at the next regulatory review. For example, Western Power has not separately identified in its proposed access arrangement or access arrangement information any capital related or non-capital costs attributed to technical rules matters in the first access arrangement period, or otherwise confirmed that no technical rules related costs are forecast.

300. Accordingly if Western Power were to seek an adjustment subject to clause 5.5 of its proposed access arrangement at the next regulatory review it would need to demonstrate in a transparent and auditable manner the nature of any cost increase for which no allowance was made in the first access arrangement period. In the absence of such data the Authority would be unable to apply the test required at section 6.9(a) of the Access Code.

[126] Access Arrangement, Appendix 7, page 31.

301. In the event of any technical rules related cost saving, as proposed by Western Power, the Authority, applicants and users would have no transparency or basis for relying on section 5.6 of Western Power's proposed access arrangement at the next regulatory review to ensure any savings will be passed through.

302. The Authority notes Western Power's proposed revenue adjustment mechanism at Appendix 7 of its access arrangement which is expressed in nominal terms. For consistency, the Authority would assess any proposed variation to target revenue pursuant to section 6.9 of the Access Code at the next regulatory review and adjust for any approved technical rules related costs/savings in real terms. Subject to the Authority's assessment for inclusion in target revenue for the next access arrangement period any additional allowance can then be included as a line item in the revenue model. Total target revenue for the next access arrangement period can then be smoothed in accordance with the Access Code's section 6.4 price control objectives, in particular 6.4(c) – avoiding price shocks.

Required Amendment 28

Western Power to separately identify and substantiate in its access arrangement all relevant forecast capital and non-capital costs attributable to technical rules for the first access arrangement period.

Required Amendment 29

Western Power to amend its access arrangement Appendix 7, section 9 by specifying a formula for adjusting target revenue for technical rule changes in a manner that determines in real terms the aggregate allowance proposed to be included at commencement of the next access arrangement period.

Investment Adjustment Mechanism

Access Code Requirements

303. Sections 6.13 to 6.18 of the Access Code prescribe the requirements for an investment adjustment mechanism, including how any adjustment is to be treated at the next access arrangement review.

304. Section 6.15 of the Access Code specifically requires the inclusion of an investment adjustment mechanism when the form of price control adopted is in accordance with section 6.2(a) of the Access Code which, as noted above, is mandatory for the first access arrangement period.

305. Sections 6.16 and 6.17 further prescribe the requirements of an investment adjustment mechanism.

306. Section 6.18 of the Access Code confirms that an investment adjustment mechanism in an access arrangement applies at the next access arrangement review.

Western Power's Proposal

307. Western Power has proposed an investment adjustment mechanism in its access arrangement.[127]

308. However, Western Power has proposed an investment adjustment mechanism that only applies to its transmission network in clause 5.19 of its proposed access arrangement.

309. Clause 5.24 of the proposed access arrangement refers to Appendix 7 of that document for details regarding the proposed methodology for an investment adjustment mechanism.

310. Clause 5.25 of the proposed access arrangement distinguishes between "forecast" (FQE) and "notional" allowances on actual transmission capex (AQE) revenue allowances and refers to the methodology described in Appendix 7 of the access arrangement.

311. Clauses 5.26(a) to (b) of the proposed access arrangement refer to capital expenditure prior to the commencement of the first access arrangement period.

312. Clause 5.26(c) of the proposed access arrangement refers to qualifying capital expenditure projects in Appendix 8.

313. Appendix 7, section 4 of the proposed access arrangement refers to an intra regulatory period investment adjustment mechanism, expressed in nominal terms.

314. Appendix 7, section 5 of the proposed access arrangement refers to an investment adjustment mechanism to be applied at commencement at the next regulatory period, expressed in nominal terms. The adjustment mechanism proposed in Appendix 7 only relates to the network revenue requirements, which by virtue of section 5.19 of the access arrangement is limited only to the transmission network.

315. The nomenclature in Appendix 7 sections 4 and 5 does not relate to that used in clauses 5.7 and 5.24 to 5.26 of the access arrangement itself.

Interested Party Submissions

316. No submissions were received.

Authority's Assessment

317. As this is the first access arrangement Western Power has submitted there are no prior year investment adjustments to be taken into account in relation to sections 6.13 to 6.18 of the Access Code.

318. The Authority notes that Western Power has only proposed that the investment adjustment mechanism apply to its transmission network in clause 5.19 of its proposed access arrangement. No investment adjustment mechanism is proposed by Western Power to apply its distribution network. The Authority notes that distribution capex is significantly greater than transmission capex.

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[127] Access Arrangement, clauses 5.7 and 5.24 to 5.26, pages 7 and 11.

319. Clause 5.19 of the proposed access arrangement provides for forecast qualifying capital expenditure (FQE_t) to allocate values in each of the three years of the first access arrangement period. The rationale for this is expanded upon in clause 5.26 of the proposed access arrangement and is addressed below.

320. Clause 5.24 refers to Appendix 7 of the proposed access arrangement. Page 5 of Appendix 7 refers to the proposed revenue path related to the investment adjustment mechanism ($REV(IAM)_{k+1}$). This approach is not in accordance with the Access Code requirements as it refers to intra-period adjustments within the first regulatory period.

321. Appendix 7, section 5 refers to "maximum average revenue yield" (MARY) which is interpreted as applying to both transmission and distribution networks. This is inconsistent with the "transmission average revenue yield" (TARY) text in clause 5.19 of the proposed access arrangement.

322. Clauses 5.26(a) to (b) of the proposed access arrangement refer to capital expenditure prior to the commencement of the first access arrangement period and is not applicable to the assessment of an IAM for the initial access arrangement period as these relate to matters affecting the determination of the capital base in accordance with sections 6.44 to 6.51 of the Access Code.

323. Clause 5.26(c) of the proposed access arrangement relates to Appendix 8 – "Qualifying Capital Expenditure Projects" and lists projects by description only. No detail regarding costs or timing has been provided. The term "Qualifying Capital Expenditure Projects" has not been defined or related to Access Code requirements. Western Power subsequently advised that Appendix 8 was for information only and that none of the estimated costs related to the Appendix 8 projects had been included in capex forecasts. The Authority notes that all of these projects will be subject to the Access Code's new facilities investment test or regulatory test as appropriate.

324. The Authority considers Western Power's proposal for an IAM does not meet the Access Code requirements of sections 6.13 to 6.18 or the Code objective. As presented in the proposed access arrangement the Authority believes that Western Power has erred in its interpretation of the Access Code requirements. Western Power's proposed IAM is unclear in its application to the transmission network and omits to include the distribution network. Western Power's proposed process formulae in its access arrangement Appendix 7, section 5.3 is also limited in its application to the subset of capital expenditure related to network assets and derived in nominal terms.

325. In its proposed access arrangement Appendix 7, section 5.3 Western Power has erred in its interpretation that any assessment of an "over investment" will automatically be passed through to users. The Authority notes that any over investment recovery can only be approved subject to satisfaction of the Access Code's New Facilities Investment Test or Regulatory Test, as applicable.

326. For the reasons set out above the Authority considers that Western Power has not submitted a compliant IAM.

327. The Authority also notes the intention of section 6.4(a)(ii) of the Access Code to provide a service provider with an incentive during an access arrangement period to pursue efficiency gains beyond any efficiency and innovation benchmarks. The current level of service standards has been identified as an area of major concern

by stakeholders. Western Power has proposed significant reliability driven capex during the initial access arrangement period. The proposed level of reliability driven capital expenditure, in real term, as discussed in the Capital Expenditure section of this draft decision is summarised in Table 19.

Table 19 Western Power's reliability driven capex ($ million real as at 30 June 2006)

Reliability driven capex	Financial year ending:	2007	2008	2009
Transmission network		1.76	1.71	1.67
Distribution network		7.51	11.40	20.29

328. In accordance with the objectives of section 6.4(a)(ii) of the Access Code, the Authority considers that an appropriate incentive is to not subject reliability driven capital expenditure to the investment adjustment mechanism in the event that Western Power meets or exceeds the required service standard benchmarks at less than the forecast reliability driven capital expenditure during the initial access arrangement period. This form of incentive mechanism for reliability driven capital expenditure is considered to be consistent with the price control objectives of section 6.4(a)(ii) of the Access Code given the importance of improving service standards in the SWIN over the initial access arrangement period. This matter is discussed further in the Authority's assessment of the Gain Sharing Mechanism section of this draft decision.

329. Subject to the Authority's assessment for inclusion in target revenue at the commencement of the next regulatory review any additions or subtractions arising from the IAM can be included in the revenue model in accordance with section 6.16 of the Access Code.

330. The IAM only applies at the commencement of the next access arrangement review in accordance with sections 6.13 and 6.18 of the Access Code.

Required Amendment 30

Western Power to apply the investment adjustment mechanism to transmission and distribution network new facilities investment.

Required Amendment 31

Western Power's forecast capital expenditure categories to be in accordance with the capital expenditure categories by asset class and expenditure type as detailed in the Capital Expenditure section of this draft decision.

Required Amendment 32

Western Power to include an investment adjustment mechanism that compares forecast capital expenditure categories against actual capital expenditure by asset class and expenditure type.

Required Amendment 33

Western Power to provide a methodology for accounting between actual and forecast investment adjustment mechanism differences in real terms.

Required Amendment 34

Western Power to propose a reliability driven capital expenditure incentive mechanism.

Gain Sharing Mechanism

Access Code Requirements

331. Sections 6.19 to 6.23 of the Access Code details the requirements and objectives of a gain sharing mechanism. An access arrangement that includes a gain sharing mechanism must also include efficiency and innovation benchmarks in accordance with section 5.25 of the Access Code.

332. A gain sharing mechanism is defined in section 6.19 of the Access Code as a mechanism:

(a) in an access arrangement which the Authority must apply at the next access arrangement review to determine an amount to be included in the target revenue for one or more of the following access arrangement periods; and

(b) which operates as set out in sections 6.20 to 6.28 [of the Access Code].

333. Section 6.20 of the Access Code states that an access arrangement must include a gain sharing mechanism unless the Authority determines that a gain sharing mechanism is not necessary to achieve the objective in section 6.4(a)(ii) of the Access Code.

334. Sections 6.21 and 6.22 of the Access Code are also relevant to the Authority's consideration of gain sharing mechanisms and provide:

6.21 A *gain sharing mechanism* must have the objective of:

(a) achieving an equitable allocation over time between users and the service provider of innovation and efficiency gains in excess of efficiency and innovation benchmarks; and

(b) being objective, transparent, easy to administer and replicable from one access arrangement to the next; and

(c) giving the service provider an incentive to reduce costs or otherwise improve productivity in a way that is neutral in its effect on the timing of such initiatives.

{For example, a service provider should not have an artificial incentive to defer an innovation until after an access arrangement review.}

6.22 A gain sharing mechanism must be sufficiently detailed and complete to enable the Authority to apply the gain sharing mechanism at the next access arrangement review, including by prescribing the basis on which returns are to be determined for the purposes of section 6.23.

Western Power's Proposal

335. Clause 5.8 of Western Power's proposed access arrangement states that a gain sharing mechanism will not apply.

336. Western Power describes its rationale for not including a gain sharing mechanism as:[128]

- a lack of resources/priority to develop one; and
- Western Power propose to expand network investment and operating expenditure and a gain sharing mechanism, which rewards reduced expenditure, would not be appropriate.

Western Power also makes general reference to internal systems that, in its view, would encourage Western Power to pursue efficiencies.

337. In response to the Authority's issues paper Western Power provided a submission which advised that a gain sharing mechanism had not been included in its access arrangement for a number of reasons, including:[129]

- There are no established "innovation and efficiency" benchmarks consistent with the requirements of section 5.26 of the Code, against which to operate a gain sharing mechanism. If the benchmarks were established at this time they would be developed in an environment of significant change in which it would be very difficult to determine appropriate parameters;
- The need to "substantially increase network investment and operating expenditure to deliver the level service that customers rightly expect" (Access Arrangement Information page 158);
- It is "more appropriate to introduce a gain-sharing mechanism once expenditure levels reach a "steady-state" (Access Arrangement Information page 159); and
- "The disaggregation of Western Power into four independent business units is likely to create cost uncertainty and change-management challenges in the

[128] Access arrangement information, page 159.

[129] Western Power, page 3.

forthcoming access arrangement period" (Access Arrangement Information, page 159).

338. Western Power has undertaken to develop efficiency and innovation benchmarks during the first access arrangement period, which would apply from the start of the second period.[130]

Interested Party Submissions

339. Alinta noted the grounds on which Western Power proposed not to include a gain sharing mechanism and considered that they are not sufficient for the Authority to determine that it is not necessary for Western Power to include a gain sharing mechanism in the proposed access arrangement. Alinta noted that the Authority can only determine that it is not necessary for Western Power to include a gain sharing mechanism in the proposed access arrangement if the Authority considers that a gain sharing mechanism is not necessary to achieve the objective in section 6.4(a)(ii) of the Access Code. The objective in 6.4(a)(ii) being to reward a service provider for efficiency gains and innovation beyond the efficiency and innovation benchmarks in a previous access arrangement. Western Power's grounds for not including a gain sharing mechanism are based on arguments of resources constraints and difficulty. Therefore, Alinta considers that Western Power has not shown that a gain sharing mechanism is not necessary to achieve the objective in section 6.4(a)(ii) of the Access Code.

340. Alinta notes that in Western Power's submission to the Authority dated 2 November 2005 it reiterated its reasons for not including a gain sharing mechanism in the proposed access arrangement. Alinta considers that the reasons included in Western Power's Submission do not demonstrate that a gain sharing mechanism is not necessary to achieve the objective in section 6.4(a)(ii) of the Access Code.

341. Alinta stated that, in its view, a gain sharing mechanism is an important part of incentive based regulation. Further, Alinta considers that a gain sharing mechanism would not be complicated for Western Power to implement.[131]

Authority's Assessment

342. Section 6.4 of the Access Code specifies the price control objectives that an access arrangement must have. The issue for the Authority is whether a gain sharing mechanism is not necessary to achieve the objective in section 6.4(a)(ii) of the Code.

343. The Authority considers it is clear from the operation of section 6.4(a)(ii) of the Access Code that an access arrangement should contain an incentive for the Service Provider to pursue efficiency gains and innovation and a mechanism to reward the Service Provider for that efficiency during the next access arrangement period.

344. Section 6.20 of the Access Code provides discretion for the Authority to consider whether the proposed access arrangement provides an incentive to Western Power during an access arrangement period to pursue efficiency and innovation gains and an opportunity for rewarding Western Power for such efficiencies. In doing so

[130] Access arrangement information, page 160.

[131] Alinta, page 50.

sections 6.20 and 5.25 of the Access Code make it clear that the gain sharing mechanism and the efficiency and innovation benchmarks are not the only mechanisms which may provide this incentive and reward mechanism. The incentive and reward mechanism may be a specific mechanism, such as a gain sharing mechanism or an alternate mechanism, or it may be that the provisions of the proposed access arrangement as a whole provide sufficient incentive and reward for Western Power such that the objective in section 6.4(a)(ii) of the Access Code is satisfied.

345. Western Power makes general reference to internal systems that would encourage Western Power to pursue efficiencies. Western Power states:

> … it is worth noting that Western Power will face significant pressure to improve performance over the forthcoming period. This submission explains some of the measures that have already been put in place to drive better service delivery at lower cost. The company fully expects its shareholder, customers and management team to continue to drive performance improvement initiatives during the first access arrangement period. These pressures on performance will remain in play, even in the absence of a formal gain-sharing mechanism.[132]

The Authority notes Western Power's arguments but considers that these have little relevance in the context of the Authority's determination under section 6.20 of the Code, particularly as shareholder, customers and management team pressures on performance are not necessarily aligned.

346. Western Power's submission does not demonstrate that the objective in section 6.4(a)(ii) of the Access Code would be achieved as Western Power's arguments are essentially common to all businesses. However, where a number of provisions in Western Power's access arrangement, taken cumulatively, satisfy the objective in section 6.4(a)(ii) of the Access Code, then the Authority could exercise the discretion provided by section 6.20 of the Access Code.

347. Western Power comments, in relation to the efficiency and innovation benchmarks, that it would be appropriate to conduct a thorough assessment of the need, and the design options for, a gain sharing mechanism at the next access arrangement review. This is coupled with an undertaking to establish, during the course of the first access arrangement period, data collection and performance monitoring processes to facilitate the development of appropriate efficiency and innovation benchmarks that would apply from the commencement of the second access arrangement period.[133]

348. The Authority also notes the lack of readily comparable and reliable empirical cost and performance data that has been collated and reported on a consistent basis against which a gain sharing mechanism (and efficiency and innovation benchmarks) could confidently be derived for this first access arrangement period.

349. In relation to gain sharing, ESC applied an efficiency carryover mechanism to electricity distributors in its 2006 - 2010 electricity distribution price review.[134] Notably the ESC had distributors' reported information from the 2001 - 2005 regulatory period from which it was able to observe a range of factors relevant to

[132] Access arrangement information, page 159.

[133] Access arrangement information, page 160.

[134] ESC (2005), page 415.

the determination of efficiency gains, carryover amounts and appropriate benchmarks for its 2006 – 20010 price review.[135]

350. ESCOSA similarly considered the application of efficiency benchmarks and carryovers (gain sharing) in its 2005 – 2010 electricity price determination with the benefit of actual data reported from the prior 2000 - 2005 regulatory period. ESCOSA concluded that it envisaged applying an efficiency carryover mechanism to efficiency gains generated in the 2005 - 2010 regulatory period on a similar basis to that applied to efficiency gains generated in the 2000 - 2005 regulatory period. ESCOSA planned to release a guideline following the decision specifying the exact operational details of the efficiency carryover mechanism, including the manner in which the efficiency carryover amount will be calculated at the end of the 2005 2010 regulatory period (i.e. whether negative amounts will be carried forward); and how that amount will be carried over to the following regulatory period.[136]

351. The QCA also considered incentive schemes in the context of service quality in its 2005 electricity distribution final determination. The QCA's assessment was in an environment where there were concerns regarding service quality levels and the state government had established compulsory minimum service standards tied to the DNSPs' distribution licences. As a result the QCA determined not to proceed with implementing a service quality incentive scheme at the time of its final determination, noting that it would consider implementing the scheme once performance levels have improved and stabilised at a level consistent with broad community expectations.[137]

352. The Authority acknowledges, as noted in the relevant sections of this draft decision, that an increased level of investment and a significant improvement in service standards is required across the SWIN. This draft decision details required amendments to the service standard benchmarks, service standard adjustment mechanism, investment adjustment mechanism, K factor price control and related reporting and disclosure obligations that will underpin service levels, targeted expenditure plans and overall network performance, constraints and improvements. The Authority has assessed that, cumulatively, these measures meet the objectives of 6.4(a)(ii) of the Access Code. In assessing Western Power's proposal regarding a gain sharing mechanism the Authority also notes the operations and maintenance expenditure for the initial access arrangement period is not subject to any ex post adjustment. The Authority has determined that this approach is consistent with the objectives of section 6.4(a)(ii) of the Access Code to provide Western Power with an incentive to pursue efficiencies in the initial access arrangement period.

353. Therefore the Authority in its assessment of the requirement for a gain sharing mechanism in accordance with section 6.20 of the Access Code has determined that a gain sharing mechanism is not necessary to achieve the objective in section 6.4(a)(ii) of the Access Code.

354. Importantly (and consistent with Western Power's undertaking to establish data collection and performance monitoring processes to facilitate the development of appropriate efficiency and innovation benchmarks) the Authority's required amendments elsewhere in this draft decision will promote the transparency, reliability and comparability of data collected during the first access arrangement

[135] ESC (2005), page 415.

[136] ESCOSA (2005), page 67.

[137] QCA (2005), page 205.

period to provide a robust basis from which to develop a gain sharing mechanism for the subsequent access arrangement period.

355. The Authority considers that Western Power's proposal at clause 5.8 of its proposed access arrangement that a gain sharing mechanism will not apply to the first access arrangement period is consistent with the Access Code requirements, noting that this is contingent upon the required amendments noted elsewhere in this draft decision.

Service Standard Adjustment Mechanism

Access Code Requirements

356. Section 5.1(c) of the Access Code requires an access arrangement to contain service standard benchmarks for each reference service.

357. Additionally, sections 6.29 to 6.32 of the Access Code require the inclusion of a service standard adjustment mechanism (**SSAM**) to apply from the commencement of the next access arrangement period.

Western Power's Proposal

358. Western Power has proposed service standards for each of its transmission and distribution networks and a SSAM to apply in relation to performance against those service standard benchmarks.[138]

359. Western Power's access arrangement information, Part D section 4.8 provides additional detail underpinning the proposed service standard adjustment mechanism.

Transmission Network Service Standard Adjustment Mechanism

360. For transmission network related service standards Western Power has proposed:

- circuit availability - to measure network availability; and
- system minutes interrupted - to record the effect on customers.

361. Western Power's proposed SSAM for transmission reference services would apply outside a "deadband" around the annual targets with a financial incentive (penalty) of one per cent of the aggregate annual revenue requirement for over (under) achievement against those targets. The transmission SSAM is summarised in

[138] Access Arrangement, pages 7-9.

Table 20 where the column labelled “incentive rate” relates to the SSAM financial incentive/penalty.[139]

[139] Access arrangement information, Part D, page 168.

Table 20 Western Power's proposed transmission network service standards

	Low Limit	Deadband			High Limit	Incentive Rate (Portion of transmission revenue)
		Lower bound	Target	Upper bound		
Circuit Availability (%)	97.6	98.1	98.6	99.1	99.6	$269,000 per 0.1% circuit availability
System Minutes Interrupted (meshed network)	4.8	5.8	8.3	10.8	11.8	$134,000 per 0.1 System Minute Interrupted

Distribution Network Service Standard Adjustment Mechanism

362. Western Power's proposed SSAM for distribution reference services would similarly apply outside a 10 per cent "deadband" around the annual targets with a financial incentive (penalty) of one per cent of the aggregate annual revenue requirement for over (under) achievement against those targets. The distribution SSAM is summarised in Table 21, where the column labelled "incentive rate" relates to the SSAM financial incentive/penalty.[140]

Table 21 Western Power's proposed distribution network service standards

		Low Limit	Deadband			High Limit	Incentive Rate (Portion of distribution revenue per SAIDI minute)
			Lower bound	Target	Upper bound		
SAIDI – Urban (Minutes)	2006/07	194	218	242	266	290	$161,000
	2007/08	181	203	226	249	271	$186,000
	2008/09	156	176	195	215	234	$225,000
SAIDI – Rural (Minutes)	2006/07	407	458	509	5609 [sic]	611	$12,300
	2007/08	381	428	476	524	571	$14,200
	2008/09	328	369	410	451	492	$17,000

363. Western Power stated that it has determined the dollar values for the incentive rates for the urban and rural categories on the basis of the proportion of customers served.

364. The "target" levels for both transmission and distribution networks relate to Western Power's proposed service standard benchmarks.

[140] Access arrangement information, Part D, page 166.

365. Underpinning Western Power's SSAM proposal is an assertion of "recent trends in deterioration in (SAIDI) performance"[141] and a management adopted target of achieving a 25 per cent improvement in SAIDI over the forthcoming access arrangement period.[142] The 25 per cent reduction is proposed to be funded by "Direct Strategies" with forecast expenditures in excess of $41 million over the initial regulatory period.[143]

Interested Party Submissions

366. Office of Energy submits:[144]

> There seems little foundation from which to determine a reliable baseline for network performance, given the acknowledged year to year volatility of network performance data and that validated data appears to be available for only 2004 and 2005.
>
> This is particularly important if it is to underpin a Service Standards Adjustment Mechanism as proposed.
>
> In addition, the annual targets for distribution performance that Western Power has proposed show only modest improvement in the initial years, improving mostly in the last year of the regulatory period.

And:

> In considering the distribution performance targets Western Power has proposed for the Service Standard Adjustment Mechanism, the Office believes that the Authority should consider:
>
> - if the base performance levels reliably reflect the current underlying performance;
> - if the intermediate reliability targets reflect appropriate annual progress toward the stated objective of 25 percent reduction compared with the June 2004 performance; and
> - the need to specifically recognise the economic significance of supply reliability in the Perth central business district in addition to urban and rural areas.

367. Alinta submits:[145]

> Alinta notes that Western Power's service standard adjustment mechanisms differ from those adopted by other TNSPs in that:
>
> - Western Power's incentives are based on only two measures, being Circuit Availability and System Minutes Interrupted; and
> - the Circuit Availability service standard is not split into component parts, such as peak critical availability.[146]
>
> Alinta considers that, in establishing its service standard adjustment mechanism for transmission reference services, Western Power should:

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[141] Access arrangement information, page 4.

[142] Access arrangement information, page 4.

[143] Access arrangement information, pages 104, 110, table 17 and Appendix 7, pages 100-102.

[144] Office of Energy, page 7.

[145] Alinta, pages 61-62.

[146] Appendix 3 of Alinta's submission sets out a comparison of the incentive mechanisms used by Western Power and other TNSPs.

- use other service standard adjustment mechanisms in addition to Circuit Availability and System Minutes Interrupted (eg. "frequency of off-supply events per annum"); and
- split the Circuit Availability service standard adjustment mechanism into component parts (eg. peak critical availability and transformer availability) to allow Western Power to have greater defined targets for achieving performance.

Alinta submits that the ERA should consider whether the service standard benchmarks proposed by Western Power are sufficiently challenging to justify the high potential incentive payment that Western Power can earn. Further, Alinta considers that the proposed benchmarks may be easily attainable by Western Power, which could result in users paying significant incentive payments to Western Power. In light of these concerns, Alinta requests the ERA to consider whether Western Power's proposals are consistent with the Code objective.

And for distribution services:[147]

Under the Proposed Access Arrangement, the "incentive rate" for the distribution reference services' service standard, SAIDI, is measured on the portion of distribution revenue per SAIDI minute.

Alinta notes that Western Power's proposed service standard adjustment mechanism for distribution services closely reflects the service standard incentive schemes in South Australia and Victoria.[148] The South Australian and Victorian schemes use the CAIDI and SAIFI service standards as key performance indicators. Alinta suggests that it is reasonable for Western Power to consider using CAIDI and SAIFI as service standards so that these targets are also adopted in Western Power's service standard adjustment mechanism.

Authority's Assessment

368. The service standard benchmarks establish the baseline around which the service standard adjustment mechanism operates. The Authority requires Western Power's proposed distribution service standard benchmarks to be amended.

369. In assessing a service standard adjustment mechanism, the Access Code requires that the mechanism must be sufficiently detailed and complete to enable the Authority to apply the SSAM at the next access arrangement review and be consistent with the Code objective.

370. Western Power's proposed service standards are not at the level adopted by its network peers in the National Electricity Market (**NEM**) in that they do not report as detailed information as is generally required in the NEM and contain additional exclusions. Western Power's proposed approach would present serious shortcomings in assessing true network performance over time and not provide a baseline for current service levels that the Authority could confidently rely upon in assessing the proposed SSAM. Accordingly the Authority requires Western Power to amend its service standard benchmarks. The assessment of, and reasoning for this decision, is provided in the Service Standard Benchmarks section of this draft decision. Notwithstanding the required amendments to Western Power's proposed service standard benchmarks the Authority is required to assess the SSAM in accordance with sections 2.1, 6.29 to 6.32 of the Access Code. Whilst reliant upon

[147] Alinta, page 62.

[148] Appendix 4 of Alinta's submission sets out a brief comparison of the New South Wales, Queensland, Victorian and South Australian regimes with Western Power's proposed regime.

the service standard benchmarks the SSAM is a stand alone mechanism that applies in accordance with the price control requirements of chapter 6 of the Access Code.

371. The Authority has also considered whether or not a financial incentive is a mandatory component of a service standard adjustment mechanism as the Access Code is silent on whether a service standard adjustment mechanism must (or may) include a financial incentive.

372. Section 6.4(a)(vi) of the Access Code states that the target revenue for the purpose of the price control methodology includes an additional amount (if any) determined under a service standards adjustment mechanism. Further section 6.4(a)(vi) indicates that a service standard adjustment mechanism may add to the target revenue. That is, as a result of the mechanism, the service provider's target revenue is increased for the next access arrangement period. For example, the service standard adjustment mechanism may be a mechanism to recover the actual cost of providing improved/reduced services by adjusting the value or cost attributed to the performance of the service in line with the actual cost of performance (where the actual cost/value exceeded the cost/value attributed to the service as a result of the service provider exceeding the service standard benchmarks).

373. Section 5.6(b) of the Access Code provides that the service standard benchmark must allow a user to determine the value of the reference service, however, this does not mandate that a service standard adjustment mechanism has to include a financial incentive/penalty. The Authority does not consider that the Access Code requires a service standard adjustment mechanism to include a financial incentive (or disincentive) in the form proposed by Western Power.

374. To assist the Authority in its analysis of appropriate performance measures for electricity networks the Authority engaged Network Advisory Services (**NAS**) to provide a report which summarised the types of performance measures adopted for other electricity networks in Australia.[149] Recommendation 5 of the NAS report noted the following:

> Network Advisory Services considers that the Authority should only approve the inclusion of penalty and reward payments under the service standards adjustment mechanism if it is satisfied that:
>
> - Western Power is currently providing a base level of service that merits rewarding it for improved performance;
> - Western Power currently has the capacity to accurately measure, and report on, its reliability performance; and
> - A service standards adjustment mechanism would encourage Western Power to improve its reliability performance.
>
> Network Advisory Services recommends that, if the Authority is satisfied of these matters, then it approve the inclusion of a service standards adjustment mechanism in Western Power Access Arrangement providing that it promotes the principles and includes the features identified above.

[149] The NAS report "Service Standards for Western Power Corporation's South West Interconnected System" is available on the Authority's website: http://www.era.wa.gov.au/electricity/consultationPapers.cfm

375. The Authority concurs with the NAS Recommendation 5, noting the points identified are essential considerations when testing the proposal against the Access Code section 6.31 requirements.

376. In relation to NAS's first dot point Western Power has noted that 86 per cent of surveyed customers identified reliability as a concern.[150]

377. In relation to NAS's second dot point Western Power has noted:[151]

> Ideally, the service standard benchmark for the first Access Arrangement period should be developed with reference to many years of data on past performance. However, the availability of suitable data for this purpose is limited, so Western Power has derived the service standard benchmark with reference to circuit availability data from the year 2000 onwards only.

378. In relation to NAS's third dot point, Western Power has not proposed any improvement to its proposed transmission service standards (which are less than the prior five year averages for the proposed measures of circuit availability and system minutes interrupted). However Western Power has proposed capital expenditure in relation to maintaining those transmission service standards.

379. In making its assessment against the Access Code requirements the Authority therefore notes surveyed customers have not attested to being provided a benchmark level of service that is widely regarded as acceptable across the SWIS and the underlying average or trend service levels have not been validated as presenting robust, historical service levels. The Authority is not yet convinced that there is a demonstrable historical basis to ascertain that the proposed targets are not readily attainable with negligible downside risk. Accordingly, the proposed 10 per cent "deadband" outside of which the financial incentive/penalty is to apply is considered too narrow for the first access arrangement period given the information asymmetry that exists

380. In addition, in the view of the Authority, the proposed SSAM does not provide transparency as to whether improvements in service standards would be attributable to access arrangement funded strategies for service level improvements and SAIDI reduction, or due to Western Power's own network management initiatives.

381. The Authority considers the distribution network incentive rates are inequitably and substantially skewed in favour of rewarding urban network improvements. Thus there is no robust economic incentive for Western Power to pursue rural SAIDI reductions relative to urban.

382. The ESC in its Final Decision approved a service level incentive scheme. However this scheme was based upon extensive historical performance data and was assessed against a much broader range of service standard benchmarks than those proposed by Western Power.[152]

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[150] Access arrangement information, page 36.

[151] Access arrangement information, page 142.

[152] ESC (2005), page 78.

383. Importantly, the QCA in its Final Determination noted that it would not proceed with implementing a service quality incentive scheme until performance levels had improved and stabilised at a level consistent with broad community expectations.[153]

384. Given the uncertainty regarding the basis of Western Power's reported historical performance and concerns regarding the reasonableness of the targets proposed, the Authority considers that there is a material risk that Western Power's proposed service standard adjustment mechanisms would result in an inequitable financial impost on users at the next access arrangement period without a transparent mechanism for validating actual improvements beyond those funded in accordance with the access arrangement.

385. The proposed service standard adjustment mechanism proposed by Western Power is assessed as not meeting the requirements of a service standard adjustment mechanism in section 6.31 as it is not:

- sufficiently complete to allow the Authority to apply the proposed mechanism at the next access arrangement review; and
- assessed as being consistent with the Access Code objective in relation to promoting the economically efficient operation and use of the network.

386. In accordance with section 6.29 of the Access Code the Authority will assess Western Power's actual service standard performance levels and improvements over the initial regulatory period against actual service standard and reliability capex and opex. This will ensure robust, validated performance and cost related data has been confirmed during the first access arrangement period.

387. The service standard performance reporting requirements of Western Power's network licence conditions over the first access arrangement period will then provide the Authority with a reasonable basis against which to reassess a SSAM, along with any financial incentive/penalty mechanism, proposed by Western Power at the access arrangement review for the second regulatory period.

Required Amendment 35

Western Power to amend its proposed service standard adjustment mechanism to remove the incentive payments from the transmission network service standard adjustment mechanism.

Required Amendment 36

Western Power to amend its proposed service standard adjustment mechanism to remove the incentive payments from the distribution network service standard adjustment mechanism.

[153] QCA (2005), page 208.

Network Valuation

Access Code Requirements

388. Subchapter 6.2 of the Access Code addresses the calculation of a service provider's costs and applies to both non-capital and capital related costs applicable to covered networks.

389. The Access Code requires a covered network to have a capital base determined at the start of each access arrangement period. Section 6.46 of the Access Code further requires the service provider to use either the depreciated optimised replacement cost (**DORC**) or optimised deprival value (**ODV**) methodology for determining the capital base for the start of the first access arrangement period. This section also requires that the capital base for the start of the first access arrangement period should also have regard to any ministerial valuation under section 119 of the *Electricity Industry Act 2004.*

390. Sections 6.49 to 6.61 of the Access Code prescribe the requirements for assessing new facilities investment, capital contributions, recoverable portion, speculative investment and redundant capital when determining the capital base.

391. Specifically the Access Code prohibits the following from being included in the capital base:

- an amount in respect of forecast new facilities investment, except that which falls under section 6.50; and
- any redundant capital which has ceased to contribute in any material way to the provision of services.

392. New facilities investment considerations are addressed in the following capital expenditure section of this draft decision.

393. Amendments to the Access Code were gazetted 8 November 2005 including the deletion of a reference that previously precluded the inclusion of capital contributions in the capital base.[154]

Western Power's Proposal

394. Western Power proposes that its capital base will have effect from 1 July 2006, and its approach to establishing this value is set out in section 6.3 of its access arrangement information.

395. Western Power has proposed to use an ODV based method of asset valuation that is underpinned by a valuation completed by PricewaterhouseCoopers (**PwC**) and Sinclair Knight Merz (**SKM**) for a Valuation Committee comprising representatives from Western Power, the Electricity Reform Implementation Unit (**ERIU**) and the Department of Treasury and Finance, as at 30 June 2004.[155]

[154] WA Government Gazette 207/2005, deletion of Access Code section 6.56.

[155] Western Power Physical Assets Valuation as at 30 June 2004 - Report to the Valuation Committee, June 2004 (attached as an appendix to the access arrangement information).

396. In deriving its capital base for the first access arrangement period Western Power has stated that it adopted the PwC, ODV based, June 2004 valuation adding in capital expenditure between 1 July 2004 and 30 June 2006, advising that it believes this represents only "prudent and efficient levels of investment."[156]

397. Western Power has set out the assumptions underpinning its depreciation charge for the period from 30 June 2004 to 1 July 2006 in section 6.4 of part B (transmission) and section 5.2, part C (distribution) of its access arrangement information. It has adopted a weighted average asset life on the basis that its "asset accounting systems provide limited data by asset category on the level of investment undertaken by the company".[157]

398. Western Power has referred to the treatment of accumulated capital contributions in its initial capital base (accumulated capital contributions) in Appendix 7 to its access arrangement and parts B and C of its access arrangement information. As a result of information subsequently provided by Western Power, the Authority understands that Western Power is not seeking to obtain a return, via inclusion in its capital base, on capital contributions received prior to the commencement of the initial access arrangement period. Western Power has proposed a methodology of maintaining accounts in its revenue model requiring annual adjustments that would remove historical capital contributions from its revenue base over an extended period of 50 years.

399. In response to information deficiencies, on 9 November 2005 the Authority issued Western Power with a notice under section 51 of the ERA Act (section 51 request) requiring the giving of certain information.

400. In response to the Authority's section 51 request Western Power provided a breakdown of the composition of its network valuations by asset class. Western Power's response in relation to the asset base valuation is reproduced in Table 22 and Table 23 for transmission and distribution respectively.

[156] Access arrangement information, page 74.

[157] Access arrangement information, Part B, Section 6.4, page 76.

Table 22 Western Power's section 51 response to the Authority – Transmission network opening asset base (including capital contributions)

Asset Class (all figures are $ million nominal)	Opening Value 1 July 2006	Estimated Remaining Useful Life
Transmission cables	13.1	38.7
Transmission steel towers	383.0	41.4
Transmission wood poles	194.4	22.3
Transmission Metering	2.3	26.8
Transmission transformers	171.0	26.7
Transmission reactors	4.3	28.0
Transmission capacitors	82.5	24.0
Transmission circuit breakers (and Site)	497.4	30.0
SCADA and Communications	32.7	11.2
IT&T	4.2	3.4
Land & Easements	90.6	N/A
Other Non-Network Assets	19.9	9.8
Total Assets (including Capital Contributions)	**1,496**	
Accumulated Capital Contributions as at 1 July 06	**Opening Value 1 July 2006**	**Estimated Remaining Useful Life**
	124.1	47.1

Table 23 Western Power's section 51 response to the Authority – Distribution network opening asset base (including capital contributions)

Asset Class (all figures are $ million nominal)	Opening Value 1 July 2006	Estimated Remaining Useful Life
NETWORK RELATED		
Wooden Pole Lines	718.7	18.2
Underground Cables	791.3	44.7
Transformers	307.4	21.0
Switchgear	161.2	16.5
Total Network	**1,978.6**	
Streetlighting	80.8	9.6
METERING RELATED		
Meters and Services	160.3	9.0
NON-NETWORK RELATED		25.15
IT&T	20.1	
SCADA & Communications	12.4	
Other Distribution Non-Network	43.5	
Distribution Land & Easements	16.9	N/A
Total Assets (including Capital Contributions)	**2,312.6**	
Accumulated Capital Contributions ($M)	**Opening Value 1 July 2006**	**Estimated Remaining Useful Life (yrs)**
	831.9	39.0

401. Subsequent to its section 51 response Western Power provided information to the Authority allocating the accumulated capital contributions across asset classes.[158]

Transmission Network Asset Valuation

402. The transmission network capital base ODV value proposed by PwC in its valuation process was $1,190 million.

403. Western Power has added to this the value of works in progress as at 30 June 2004, less depreciated capital contributions, leading to a closing capital base value of $1,132 million for the year ended 30 June 2004.

[158] Email from Western Power, 30 November 2005.

404. Western Power has then added capex for the financial years ending 2005 and 2006 valued in excess of $270 million, less $90 million in depreciation over that two year period.

405. The resultant proposed transmission network opening capital base at 1 July 2006 is $1,371.4 million.

Distribution Network Asset Valuation

406. The distribution network capital base ODV value proposed by PwC in its valuation process was $1,963 million.

407. Western Power has added the value of works in progress as at 30 June 2004, less depreciated capital contributions, leading to a closing capital base value of $1,315 million for the year ended 30 June 2004.

408. Western Power has then added capex for the financial years ending 2005 and 2006 valued at $279 million, less $169 million in depreciation over that two year period.

409. The resultant proposed distribution network opening capital base at 1 July 2006 is $1,480.7 million.

Interested Party Submissions

410. In relation to the initial capital base the Office of Energy advised[159] that it had, in consultation with Western Power and the Department of Treasury and Finance through a Valuation Committee, commissioned a valuation of Western Power's assets, including the South West Interconnected Transmission and Distribution assets, which concluded in June 2004 and that the valuation was required to be undertaken to a regulatory standard on the basis that it was to:

- provide information related to the disaggregation of Western Power; and
- provide Western Power with the basis of its submission to the Authority in relation to its regulated asset base.

411. The Office of Energy advised that the valuation was considered suitable for the purposes for which it was intended but noted that the information was subject to limited consultation with network users and it considered that further public consultation would be required before the valuation could be accepted by the Authority as a reasonable basis on which to determine a regulated asset base.

412. No other submissions were received.

Authority's Assessment

413. Section 119 of the Electricity Industry Act 2004 requires the Authority to adopt a "ministerial valuation", where one has been produced.

414. While the PwC June 2004 asset valuation referred to above had considerable input from government, it is not a DORC based "ministerial valuation" that the Authority is required to adopt.

[159] Office of Energy, page 1.

415. The Authority notes Western Power's assertion that its "asset accounting systems provide limited data by asset category on the level of investment undertaken by the company".[160] The Authority does not accept that this assertion reflects a sustainable position beyond 1 July 2006 and will require asset management data that is maintained at a sufficient level in the ordinary course of Western Power's network business operations. The collation, audit and maintenance of this data will be fundamental to supporting Western Power's proposals for the treatment of capital contributions, recording service standard performance and accurately tracking asset lives and applicable depreciation charges in the regulatory regime.

416. Western Power's section 51 response to the Authority confirmed Western Power's network valuation by asset class and the quantum of accumulated capital contributions. The treatment of accumulated capital contributions is discussed in the following Capital Contributions section of this draft decision. This detail being relevant to the Authority's assessment of Western Power's capital base as well as the rationale underpinning Western Power's proposed capital and operations and maintenance expenditures.

417. The Authority engaged Wilson Cook and Co Limited (**Wilson Cook**) to provide an assessment of Western Power's proposed capital base valuation as at 1 July 2006 and forecasts of capital, operations and maintenance expenditure for the initial access arrangement period.

418. Wilson Cook summarised its review of the capital base valuation as follows:[161]

> Having considered as described in section 3 of this report the valuation methodology used, the robustness of the data available, the estimates and assumptions made, the asset registers and depreciation schedules, the valuer's assessment of the level of accuracy and the adjustments needed to derive a valuation at 30 June 2006, our opinion is that the estimated valuation at 30 June, 2006 (viz: $1,369 m for transmission plus $1,482 m for distribution) has been prepared in accordance with the ODV methodology, is thus consistent with the requirements of section 6.46 of the Code and may be accepted as reasonable and appropriate for the intended purpose.

419. Accordingly the Authority accepts Western Power's valuation at 30 June 2006 as being prepared in accordance with the ODV methodology, thus being consistent with the requirements of section 6.46 of the Access Code and may be accepted as reasonable and consistent with the Access Code requirements.

420. In relation to Western Power's proposal for the treatment of accumulated capital contributions, this must similarly be assessed pursuant to the Access Code provisions relating to the determination of the capital base at the commencement of the access arrangement period.

421. Accumulated capital contributions are distinct from, and separate to, the Access Code requirements for a capital contributions policy that is to apply during an access arrangement period.

422. Western Power has proposed to derive its AARR on the opening capital base less an amount derived from an accumulated capital contributions account for a proposed economic life of up to approximately 50 years. This is the manner in

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[160] Access arrangement information, Part B, page 76 and Part C, page 117.

[161] Wilson Cook (2005), page 57.

which Western Power has modelled and derived its AARR, per sections 2.1 to 2.27 of Appendix 7 of its proposed access arrangement.

423. The Authority notes that while the proposed approach does not disadvantage customers in present value terms, the present value calculation is being undertaken over a very long period (50 years). Therefore, the proposed approach does raise inter-temporal cost shifting and equity concerns between different categories of users over time. A reasonable point of view may be that the customers that paid for the assets should receive the benefits of their contribution within a reasonable period.

424. The proposed approach necessitates separate calculation of a capital contributions account for an extended period – some 50 years – until the assets in the capital contributions account are fully depreciated. This is likely to be administratively burdensome for both the Authority and Western Power.

425. Having reviewed section 6.46 and related provisions of the Access Code in relation to the determination of the initial capital base for the start of the first access arrangement period, the Authority considers that a preferable approach that provides a present value equivalent outcome is to remove the capital contributions from the opening asset base entirely. Additionally, officers of the Authority have discussed this approach with Western Power and the Authority understands that Western Power consider this approach to be an effective methodology for addressing accumulated capital contributions.

426. The approach of "netting off" capital contributions from the capital base is assessed as satisfying the Code objective whereby the service provider does not receive a financial benefit for accumulated capital contributions (as proposed by Western Power) and promotes transparency in the revenue setting process.

427. The Authority considers that Western Power's ODV based capital base valuation for its transmission network of $1,371.4 million as at 1 July 2006 is consistent with the Access Code requirements, subject to the required amendment below.

428. The Authority considers that Western Power's ODV based capital base valuation for its distribution network of $1,480.7 million as at 1 July 2006 is consistent with the Access Code requirements, subject to the required amendments below.

429. The Authority considers that Western Power's proposed treatment of accumulated capital contributions prior to the commencement of the initial access arrangement period is not consistent with the Access Code requirements.

Required Amendment 37

Western Power to amend its access arrangement to adopt the major asset groupings, optimised deprival values as at 1 July 2006 and estimated remaining useful lives for all network, metering and non-network assets used to provide covered services in accordance with Table 11 of this draft decision.

Required Amendment 38

Western Power to remove historical accumulated capital contributions from the initial capital base in accordance with its section 51 response, as summarised at Table 22 and Table 23 of the Network Valuation section of this draft decision and make the necessary consequential amendments to its price control formulae.

Redundant Capital

Access Code Requirements

430. Section 6.61 of the Access Code provides that "the Authority may in relation to a determination under section 6.44(a) require an amount (redundant capital) to be removed from the capital base to the extent (if any) necessary to ensure that network assets which have ceased to contribute in any material way to the provision of covered services are not included in the capital base".

431. Section 6.62 requires that prior to the Authority requiring a removal of redundant capital from the asset base, it must have regard to:

- whether the service provider was efficiently minimizing costs when it developed, constructed or acquired the network assets;
- the uncertainty such a removal may cause and the effect which any such uncertainty may have on the service provider, users and applicants;
- whether the cause of the network assets ceasing to contribute in any material way to the provision of covered services was the application of a written law or a statutory instrument;
- whether the service provider was compelled to develop, construct or acquire the network assets:
  - by an award by the arbitrator; or
  - because of the application of a written law or a statutory instrument; and
- whether the depreciation of the network assets should be accelerated instead of or in addition to a redundant capital amount being removed from the capital base under section 6.61.

Western Power's Proposal

432. Western Power:[162]

> … believes that the ERIU valuation has addressed the issue of asset redundancy with regard to assets as at 30 June 2004. In addition all capex undertaken since the ERIU valuation continues to be required to provide covered services and that there should be "no requirement for any further allowance for redundant assets".

433. Additionally, Western Power contends that due to historic under-spend on assets, there is a requirement for the "repair and replacement" of assets.

434. In discussions with Western Power following the submission of its access arrangement, the Authority was requested to treat some assets previously submitted as "disposals" as "redundant capital". The Authority understands that Western Power contends that the redundancy is caused by a requirement on Western Power under the State Underground Power Program (**SUPP**) to replace overhead equipment assets with underground equipment before the end of the useful lives of the overhead assets.[163]

435. Western Power proposed a cost allocation by asset type of its proposed redundant assets as summarised in Table 24.[164]

Table 24 Western Power's asset allocation for proposed redundant assets ($ million nominal)

Asset Class	2006/07	2007/08	2008/09
Wooden Pole Lines	2.94	2.94	2.94
Underground Cables	-	-	-
Transformers	0.78	0.78	0.78
Switchgear	0.20	0.20	0.20
Street lighting			
Meters and Services	-	-	-
IT&T	-	-	-
SCADA & Communications	-	-	-
Other Distribution Non-Network	-	-	-
Distribution Land & Easements	-	-	-
Total Assets	**3.92**	**3.92**	**3.92**

[162] Access arrangement information, Part B, page 75.

[163] Emails from Western Power on 1, 2 and 3 March 2006 in support of its claim for the treatment of redundant assets.

[164] Email from Western Power, 3 March 2006.

Interested Party Submissions

436. No submissions were received.

Authority's Assessment

437. The Authority notes that Western Power's proposed access arrangement is not clear regarding its proposed treatment of redundant capital. However, the revenue model provided by Western Power made provision for redundant capital and subsequent email submissions from Western Power provided clarification on Western Power's proposed treatment of redundant assets. The Authority's draft decision has taken into account the representations made to it by Western Power in relation to the treatment of the assets previously classified as "disposals" to be treated as "redundant capital".

438. The Authority must consider whether the assets are redundant capital (via section 6.61), and "have ceased to contribute to the covered services". The Authority understands that the SUPP requires Western Power to replace working assets with remaining lives with new assets.

439. While the Authority has considered the Access Code requirements in relation to redundant capital, it cannot proceed to assess the inclusion of the redundant capital on the basis of the submissions provided by Western Power as it has assessed that Western Power needs to demonstrate in greater detail the proposed rationale for the treatment of redundant assets. The relevant costs have therefore been assessed in the determination of total revenue as disposals in accordance with Western Power's definition of these assets in its proposed access arrangement.

440. The Authority notes that while there is currently insufficient information on which to support Western Power's submission that the assets replaced by the SUPP are redundant capital it is open to Western Power to address in greater detail the requirements of sections 6.61 to 6.63 of the Access Code in response to this draft decision. The Authority has therefore assessed for this draft decision that there is no requirement to amend Western Power's proposed capital base for redundant capital pursuant to section 6.61 of the Access Code.

Capital Expenditure

Access Code Requirements

441. Capex during the regulatory period is added into Western Power's capital base subject to meeting the requirements of section 6.51 and 6.52 (new facilities investment) or chapter 9 (regulatory test), as necessary, of the Access Code.

442. In assessing capex forecasts for the Western Power transmission and distribution networks the Authority must ensure that the forecasts:

- provide for the prescribed "covered" transmission and distribution activities only;
- reflect an unbiased forecast of capex that would be undertaken by an efficient networks business, operating in accordance with good electricity industry practice, over the regulatory period;
- are consistent with the demand forecasts, service targets and other obligations;

- will pass the Access Code requirements for New Facilities Investment (section 6.52) or Regulatory Test (chapter 9); and
- are consistent with the Code objective.

443. Amendments to the Access Code were gazetted 8 November 2005 including the deletion of section 6.56 which, prior to the amendment, precluded the inclusion of capital contributions in the capital base.[165]

New Facilities Investment

444. Section 6.52 of the Access Code prescribes the new facilities investment test and the conditions under which new facilities investment may be added to the capital base.

> 6.52 New facilities investment may be added to the capital base if:
>
> (a) the new facilities investment does not exceed the amount that would be invested by a service provider efficiently minimising costs, having regard, without limitation, to:
>
> (i) whether the *new facility* exhibits economies of scale or scope and the increments in which capacity can be added; and
>
> (ii) whether the lowest sustainable cost of providing the *covered services* forecast to be sold over a reasonable period may require the installation of a *new facility* with capacity sufficient to meet the forecast sales;
>
> and
>
> (b) one or more of the following conditions is satisfied:
>
> (i) either:
>
> A. the anticipated incremental revenue for the new facility is expected to at least recover the new facilities investment; or
>
> B. if a modified test has been approved under section 6.53 and the new facilities investment is below the test application threshold the modified test is satisfied;
>
> or
>
> (ii) the new facility provides a net benefit in the covered network over a reasonable period of time that justifies the approval of higher reference tariffs; or
>
> (iii) the new facility is necessary to maintain the safety or reliability of the covered network or its ability to provide contracted covered services.

445. Section 6.71 of the Access Code prescribes the approval process for new facilities investment.

Regulatory Test

446. Chapter 9 of the Access Code prescribes the application of the regulatory test to major augmentations. The regulatory test is an assessment of whether a proposed major augmentation to a covered network maximises the net benefit after considering alternative options.

[165] WA Government Gazette 207/2005, deletion of Access Code section 6.56.

447. Section 9.1 of the Access Code prescribes the objectives of chapter 9 and sections 9.10 to 9.25 detail the regulatory test process. This is discussed in greater detail in the later section of this draft decision specifically addressing the Regulatory Test.

Western Power's Proposal

448. Western Power's access arrangement information part B (transmission) and part C (distribution) provide summaries by expenditure type for capex in nominal terms.

449. Western Power submitted information in support of its proposed capital expenditure. At Appendix 7 to the access arrangement information, the "compelling case" in support of forecast expenditures for the access arrangement period was presented. The Authority's consultants, Wilson Cook, stated they experienced difficulties in reconciling information between the access arrangement information and Appendix 7. In particular, Wilson Cook noted:

> An impediment to our work arose because the expenditures described in Appendix 7 to the access arrangement information – a supporting document containing descriptive material in relation to the expenditures – did not match the level of expenditure proposed by the Corporation [Western Power] in the main document. As a result, the nature of the proposed expenditures was unclear to us. This was pointed out to the Corporation and clarification of the work content of the expenditures in the main document was sought.[166]

450. Wilson Cook sought considerable supporting documentation in order to satisfactorily consider the proposed forecasts.

451. Following the issuing of the section 51 request, Western Power responded on 16 November 2005.[167]

452. Western Power's capex projections for each of its transmission and distribution networks, including capital contributions are summarised in the tables below.

[166] Wilson Cook (2005), page 7.

[167] Copies of the section 51 notice and Western Power's response are available from the Authority's website at www.era.wa.gov.au.

Table 25 Western Power's section 51 response – Transmission forecast capex ($ million nominal)

	Economic Life	2006/07	2007/08	2008/09
Transmission cables	55	6.6	9.0	0.5
Transmission steel towers	60	53.6	35.3	47.1
Transmission wood poles	45	3.7	8.3	26.0
Transmission Metering	40	-	-	-
Transmission transformers	50	26.3	23.0	27.0
Transmission reactors	50	0.3	-	-
Transmission capacitors	40	4.9	3.3	3.1
Transmission circuit breakers	50	48.4	42.8	44.4
SCADA and Communications	34.15	4.1	2.2	4.3
IT&T	16.85	5.8	4.2	4.8
Land & Easements	na	20.7	32.6	9.5
Other Non-Network Assets	16.85	4.6	4.2	4.1
Total Capital Expenditure		**179.0**	**165.1**	**170.8**

Table 26 Western Power's section 51 response – Transmission forecast capital contributions commencing 1 July 2006 ($ million nominal)

	Economic Life	2006/07	2007/08	2008/09
Transmission cables	55	1.80	0.20	
Transmission steel towers	60	2.13	0.05	
Transmission wood poles	45			
Transmission Metering	40			
Transmission transformers	50	0.21	0.00	
Transmission reactors	50			
Transmission capacitors	40			
Transmission circuit breakers	50	9.74	2.44	
SCADA and Communications	34.15			
IT&T	16.85			
Land & Easements	N/A	0.13	0.02	
Other Non-Network Assets	16.85			
Cash Contributions	N/A			
Total Capital Contributions		**14**	**2.7**	**0**

Table 27 Western Power's section 51 response – Distribution forecast capex ($ million nominal)

	Economic Life	2006/07	2007/08	2008/09
NETWORK RELATED				
Wooden Pole Lines	41	51.0	65.6	75.1
Underground Cables	60	94.9	99.4	108.6
Transformers	35	28.2	27.2	27.7
Switchgear	35	21.9	25.2	27.2
Total Network		**196.0**	**217.4**	**238.5**
Streetlighting	20	11.6	11.8	13.2
METERING RELATED				
Meters and Services	25	4.4	8.1	10.0
NON-NETWORK RELATED				
IT&T	10.16	15.2	11.4	13.0
SCADA & Communications	10.16	2.1	1.8	1.9
Other Distribution Non-Network	10.16	3.2	3.5	3.8
Distribution Land & Easements		0.0	0.0	0.0
Total Capital Expenditure		**232.6**	**254.0**	**280.4**

Table 28 Western Power's section 51 response – Distribution forecast capital contributions commencing 1 July 2006 ($ million nominal)

	Economic Life	2006/07	2007/08	2008/09
NETWORK RELATED				
Wooden Pole Lines	41	2.3	2.3	2.3
Underground Cables	60	63.5	64.8	67.0
Transformers	35	10.3	10.5	10.8
Switchgear	35	6.6	6.7	6.9
Total Network		**82.7**	**84.3**	**87.0**
Streetlighting	20	7.9	8.1	8.4
METERING RELATED				
Meters and Services	25	0.0	0.0	0.0
NON-NETWORK RELATED				
Non Network	10.16	0.0	0.0	0.0
Total capital contributions		**90.7**	**92.4**	**95.4**

Transmission Network capex

453. Western Power has proposed transmission capex from $179 million in 2006/07, declining to $171 million in 2008/09 representing an average of $171 million per annum over the initial access arrangement period. This compares with an average level of transmission capex for the three financial years ending 2003 to 2005 of $106 million.

454. Western Power has provided the following rationale for its proposed capex:

- the impacts of previous budget constraints, stating the effect of which has been a significant increase in "backlog" replacement expenditure as a result of deferred asset replacement;
- facilitation of market reform, requiring standalone business and information and metering systems;
- asset replacement due to the advancing age of Western Power's transmission network;
- connection of additional generation capacity required to accommodate forecast new generation capacity;
- achieving and maintaining network performance in accordance with approved planning criteria, noting the supply reliability risks arising from increased asset utilisation and demand growth; and
- compliance with more onerous statutory obligations.

455. Table 6 of part B of Western Power's access arrangement information details the expenditure categories of transmission capex.

Distribution Network capex

456. Western Power has proposed increases of distribution capex from $233 million in 2005/06, to $280 million in 2008/09 representing an average of $256 million per annum over the initial access arrangement period. This compares with an average level of distribution capex for the three years ending 30 June 2003 to 2005 of $169 million.

457. Western Power has provided the following rationale for its proposed capex:

- the impact of previous budget constraints - as for transmission;
- facilitation of market reform - as for transmission;
- load growth and review of design standards, driven by high levels of load growth (particularly air conditioning load) and population growth;
- reliability expenditure related to improvements in SAIDI performance for urban and rural customers across the SWIN and targeting the worst performing feeders;
- asset condition, including steadily ramping up replacement capex towards Western Power's proposed long-term sustainable level; and
- safety, environment and statutory compliance obligations.

458. Western Power's access arrangement information also includes distribution capex for two specific programs.

Rural Power Improvement Program

459. Western Power, in its response to the Authority's section 51 request, asserted in relation to the Rural Power Improvement Program (**RPIP**) that:

> The RPIP project is fully funded by Western Power, with an effective State Government equity interest of 50 percent via an agreed reduction in dividend in the relevant financial years. Therefore, there is no equivalent capital contribution included in the revenue formulation.

State Undergrounding Power Program

460. The SUPP is jointly funded by Western Power (25 per cent), the Western Australian State Government (25 per cent) and Local Government Authorities (50 per cent).

461. Western Power, in its response to the Authority's section 51 request asserted in relation to the SUPP that:

> The SUPP project capital expenditure is jointly funded by Western Power, the State Government and Local Government Authorities on a 25%/25%/50% basis respectively. While the full cost is included in the capital expenditure forecasts, Western Power receives separate cash payments from both the State Government and Local Government Authorities which are recognized as revenue (for accounting purposes), and equivalent offsetting capital contributions are included in the revenue formulation.

Air conditioning

462. Western Power has noted:

> …as a result of Western Australia's unprecedented high levels of population growth and the high levels of load growth generated primarily by new air conditioning load (including its deleterious effect on load factor) Western Power has a substantial amount of new distribution assets to construct and commission now and over the course of the forthcoming Access Arrangement period. In addition there is a substantial amount of augmentation work required on existing distribution feeders, as well as zone substation integration to cater for the additional load. This augmentation work includes a substantial amount of backbone feeder conductor replacement to improve both capacity and fault level rating.[168]

463. Western Power has stated that the design paradigm for residential properties has clearly changed and new standards need to apply, calling for the value of After Diversity Maximum Demand (**ADMD**)[169] to be reset to a higher level.

Increased ADMD Design Criteria

464. Western Power advised that it has carried out a detailed investigation into current ADMD levels in a range of demographic areas within the SWIS and also reviewed experiences in other Australian States. The recommendations from this report have been adopted, resulting in Western Power Networks using a formula to predict design ADMD based on lot price and lot/dwelling size.

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[168] Access arrangement information, page 104.

[169] ADMD refers to the maximum demand per customer for a given number of customers.

465. The application of this formula to new development designs should avoid likely future overloading of distribution transformers and LV circuits which are extremely difficult and hence expensive to retrospectively augment.[170] Western Power has estimated that the impact of this design change will incur additional expenditures of $19.1 million per annum. Western Power notes this issue is significant with considerable costs and potential impacts on reliability.[171]

Systems Management

466. Western Power, in its response to the Authority's section 51 request advised:

> As presented in the AAI, there is no specific Capex provision for Network Operations. However, you will observe in the project listings in Attachment A that there are some related small projects in the "IT" and "Support" expenditure categories. It is appropriate that all of these costs remain with the Network business.

467. In its covering letter to the Authority[172] at the time of submitting its proposed access arrangement and access arrangement information Western Power foreshadowed the imminent amendment that would delete section 6.56 of the Access Code. As a result Western Power advised that it wished to adopt a methodology for the treatment of capital contributions from the commencement of the initial access arrangement period whereby (i) capital contributions could be added to the capital base, and (ii) the amount of the capital contribution would be deducted from total revenue in the year in which the capital contribution is made.

468. In part B of its access arrangement information Western Power states that it deducts "capital contributions revenue" from its total annual revenue requirement for each of the transmission and distribution networks.[173]

469. In Attachment B of its response to the Authority's section 51 request Western Power provided a forecast of capital contributions for each of the distribution and transmission networks by asset class.

Interested Party Submissions

470. In its submission to the Authority the Department of Treasury and Finance noted:

> As a Government Trading enterprise (GTE) WP [Western Power] operates at arms length from Government and has considerable management autonomy.[174]

And:

> While the [integrated Western Power] budget has been developed for specific initiatives, WP has had the flexibility to allocate capital expenditure within the approved limits as priorities change over the year.
>
> As a result, WP's Network Access Arrangement submission claims relating to budget constraints on the network should not be accepted at face value. WP's total capital

[170] LV stands for Low Voltage comprising electricity infrastructure operating at 415 volts and less.

[171] Access arrangement information, page 105.

[172] Western Power correspondence dated 24 August 2005.

[173] Access arrangement information, page 14, 15.

[174] Department of Treasury and Finance, page 1.

> budget has traditionally been underspent and therefore, there has been some capacity for networks to spend more.[175]

471. Following receipt of Western Power's response to the section 51 request the Authority sought confirmation from the Department of Treasury and Finance, as the relevant department with shareholder oversight of Western Power, regarding the Government's funding arrangements for the RPIP. The Department of Treasury and Finance confirmed:

> In May 2004, the Government initiated the Rural Power Improvement Program (RPIP), a $48 million, four-year program which recognises that in some instances there is a strong social, rather than commercial, need for improvements where power reliability has been particularly poor.
>
> 50% of this program is funded by the Government through a direct equity contribution (capital contribution), not through a reduction to Western Power's dividend.[176]

472. The Urban Development Institute of Australia (**UDIA**) stated:

> We acknowledge that Western Power has carried out research on this, [load growth] and we fully support the notion that all systems should be designed using the correct load criteria. However we are also very aware of over-designing the system by using ADMD values which are too high, because under the current arrangement the cost of this will be directly borne by the buyers of new residential lots in Western Australia.[177]

473. WASEA stated:

> WASEA is concerned to see that the SWIN is developed in a way which facilitates and encourages the connection of new renewable energy projects. At present, we understand that there is a very limited capacity for the SWIN to accommodate new renewable energy projects, particularly those with intermittent output, both on the system as a whole and in particular areas of the network. We understand that new entrants may be required to make significant capital contributions because of the SWIN's limitations in this regard.
>
> We encourage the Authority to consider whether Western Power's forecast new capital expenditure and their test for new facilities investment, facilitate the objectives of Part 9 of the Electricity Industry Act 2004 and thus encourage the development of sustainable energy projects on the SWIN.
>
> On the issue of capital contributions by loads, we note that Western Power identifies the significant investment that is required because of load growth surrounding the adoption of air-conditioning. This type of load growth has deleterious cost, efficiency and equity impacts on all aspects of electricity generation, transmission and distribution and the return from tariffs.[178]

Authority's Assessment

474. For capex forecasts to be included in the network valuation, Western Power is required to provide sufficient supporting information to demonstrate that the proposed investments satisfy the relevant Access Code tests.

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[175] Department of Treasury and Finance, page 2.

[176] Email from Department of Treasury and Finance, 21 November 2005.

[177] Urban Development Institute of Australia, page 1.

[178] Western Australian Sustainable Energy Association, page 6.

Transmission Capex

475. Wilson Cook assessed Western Power's proposed transmission capex by examining:

- system capacity expenditure;
- the level of expenditure relative to the asset base;
- connection driven expenditure;
- safety, environmental and statutory expenditure;
- reliability expenditure; and
- other transmission capex, comprising SCADA, IT and network support.

476. In relation to system capacity expenditure Wilson Cook noted:

> Western Power is proposing to spend an annual average of $99.0 m on increasing transmission system capacity over the period, compared with an average of $75.7 m over the previous three years. This represents an increase of 31% and is the biggest increase numerically in the expenditure categories. Expenditure is forecast to rise from $83.0 m in the first year of the period to $110.5 m in the third year.
>
> System capacity expenditure includes all demand-driven reinforcement of the transmission and sub-transmission systems, including zone substations. The primary driver is said to be peak demand growth, driven by the increasing use of air conditioning systems by residential and commercial customers, new residential developments, in-fill growth in mature suburbs and isolated larger customers such as retail, industrial and mining developments.
>
> A second driver is the high level of asset utilisation presently being experienced, reflecting a lack of adequate expenditure in this area over recent years and a consequential lack of available capacity to meet recent, rapid, load growth. Evidence was given to us in support of the statement of present high plant utilisation.
>
> We reviewed the relevant planning standards and proposed network developments as outlined in section 2.3 of the Transmission and distribution annual planning report 2005 and the draft rules [proposed technical rules] and found them to be reasonable and appropriate and generally in accordance with international practice.[179]

477. On balance Wilson Cook advised that it was satisfied with the explanations received from Western Power in relation to transmission system capacity capex.

478. Wilson Cook estimated that the proposed annual system capacity expenditure of $99.0 million represented 3.7 per cent of the replacement cost of the transmission assets as a whole, compared with a forecast rate of increase in demand of 3.3 per cent per annum. Wilson Cook noted that whilst that may appear reasonable, it noted that additional capacity required due to load growth was being met under the connection-driven capex heading with accompanying further expenditure.

479. For connection driven expenditure Western Power is proposing to spend an annual average of $37.9 million over the period compared with an average of $16.9 million over the previous three years.

[179] Wilson Cook (2005), pages 27-28.

480. Wilson Cook noted:

> … this represents an increase of 124% and is the second-biggest increase numerically in the various expenditure categories. The projections are understood to include the cost of transmission works associated with new generation capacity in the Generation status review of 2004 or with new generation capacity that was notified subsequently and is at a well-developed stage. The projections do not, we understand, include prospective extensions of the 330 kV network to the north-country region or to Kemerton, or the installation of converters on the line to the eastern goldfields region, or any works listed in appendix 8 of the Access Arrangement as qualifying capital expenditure projects.
>
> The projections also include the cost of transmission works (including zone substations) associated with new customer bulk loads. In each case, work includes associated upgrades and augmentation related to the connection as well as the connection itself.[180]

481. Wilson Cook noted the uncertainty surrounding the timing and location of future generation capacity additions and the consequential uncertainties that surround the need for transmission system investment. Wilson Cook considered:

> Most of this expenditure is expected to be funded by the initiator of the work – the bulk load customers of the generators – and therefore any increase or decrease in expenditure should be matched by corresponding increases or decreases in capital contributions.[181]

482. Wilson Cook advised that it was satisfied for the purpose of its review that the transmission connection driven expenditure proposals were reasonable in total.[182]

483. In relation to safety, environmental and statutory expenditure Wilson Cook considered that the works appeared to be justifiable although it could not gauge the "optimality of their timing". Wilson Cook also noted transmission reliability expenditure of $1.8 million per annum which it considered to be reasonable.

484. In relation to "other" transmission capex, comprising SCADA, IT and network support, Wilson Cook advised that it considered the proposed levels of transmission capex to be reasonable.

Distribution Capex

485. Wilson Cook assessed Western Power's proposed distribution capex by examining:

- system capacity expenditure;
- customer driven expenditure;
- asset replacement expenditure;
- reliability improvement expenditure;
- safety, environmental and statutory expenditure; and
- other distribution capex, comprising the SUPP, RPIP, metering, SCADA, information technology and network support.

[180] Wilson Cook (2005), page 29.
[181] Wilson Cook (2005), page 29.
[182] Wilson Cook (2005), page 29.

486. In relation to system capacity expenditure Wilson Cook noted that Western Power is proposing to spend an average of $34.8 million on distribution system capacity over the period, representing an increase of 81 per cent. This expenditure includes all demand-driven reinforcement of the high voltage (HV) and low voltage (LV) distribution systems. HV expenditure includes feeder reinforcement to cope with load growth, to achieve or maintain compliance with the planning criteria, and to accommodate new substation developments. LV expenditure includes distribution transformer and LV feeder upgrades.[183]

487. Wilson Cook advised that it had:[184]

> … reviewed the distribution network planning standards as outlined in section 2.4 of the transmission and distribution annual planning report and the Draft technical rules. We found the planning standards used for CBD, metropolitan, semi-rural and rural areas to be reasonable and generally in accordance with industry practice.

And:

> We noted that the proposed annual expenditure of $34 m represents around 0.8% of the replacement cost of the distribution asset base. Noting that the distribution network is under considerable stress at present due to the factors already mentioned, we considered the proposed expenditure to be at a reasonable level for the period.

488. Western Power is proposing to spend $84.5 million per annum on customer-driven capex. Wilson Cook's analysis shows that the average cost per customer rose significantly over the three years to 2003/04 but is projected to fall from the 2004/05 level of $4,529 per connection to $3,652 in 2008/09, suggesting that either the 2003/04 level was unusually high or the expenditure forecasts for the access arrangement period are based on historical information rather than the most recent cost of new connections.[185]

489. Wilson Cook advised that, overall, it considered the average cost per connection to be reasonable, given that most new connections were occurring on newly developed sites.

490. For asset replacement expenditure Western Power is proposing to spend an average of $13.1 million per annum on asset replacement over the period, compared to an average of $7.8 million per annum over the previous three years, representing an increase of 69 per cent.

491. Wilson Cook concluded for asset replacement expenditure that:[186]

> Overall, therefore, we were satisfied with this level of replacement expenditure for the period but wish to draw to the Authority's attention to the fact that this level will be insufficient in the medium- to longer-term to sustain the asset base.

[183] Wilson Cook (2005), page 38.
[184] Wilson Cook (2005), page 39.
[185] Wilson Cook (2005), page 40.
[186] Wilson Cook (2005), page 41.

492. For reliability improvement expenditure Wilson Cook noted that:[187]

> Western Power is proposing to spend an average of $13.9 m p.a. on capex to improve the reliability of supply over the period, compared to an average of $0.1 m over the previous three years. Expenditure is forecast from $7.7 m in the first year of the period to $21.9 m in the third year.
>
> We noted that this is effectively a new expenditure category, specifically targeting reliability and that the Corporation has committed to improvements in SAIDI performance for urban and rural customers in the SWIS by the end of the period.

493. Wilson Cook observed that, in its opinion, the benchmark levels that Western Power proposed in relation to reliability improvement expenditure did not represent good industry practice levels and lower SAIDI levels should be achievable with properly targeted and prioritised actions. The Authority has assessed this matter in detail in the Service Standard Benchmarks section of this draft decision.

494. For safety, environmental and statutory expenditure Wilson Cook reported that:[188]

> Western Power is proposing to spend an average of $37.6 m p.a. on safety, environmental and statutory capex over the period, compared to an average of $9.8 m over the previous three years. This represents an increase of 284%.
>
> The increased expenditure is said to be necessary for the Corporation to comply with directives and remedial actions agreed with the Energy Safety Directorate (ESD), the Electricity (Supply Standards and System Safety) Regulations 2001 and its other obligations.
>
> We were advised that all projects included in this category relate to the achievement of mandated safety, environmental, and compliance obligations or accepted good practice employed to manage risk prudently. Subject to the fact that we were not provided with information on the unit costs of construction, other than through the valuation report, we considered the proposed level of expenditure to be reasonable.

495. In relation to the SUPP Wilson Cook noted:[189]

> SUPP is a governmental initiative to underground 50% of the Perth metropolitan area with a corresponding increase in regional areas by the year 2010. Funding is 25% by Western Power, 25% by the Government and 50% by the Local Government Authority (LGA). An average of $16.8 m p.a. has been proposed for the period. We accepted the expenditure as reasonable but noted that the full expenditure has been allowed for in the Corporation's estimates with the contributions from the other parties included in capital contributions.

496. The Authority accepts Western Power's proposed treatment of SUPP capital contributions noting that it will be accounted for in accordance with Western Power's proposed treatment of capital contributions, as discussed in the following section of this draft decision.

[187] Wilson Cook (2005), page 41.

[188] Wilson Cook (2005), page 42.

[189] Wilson Cook (2005), page 42.

497. In relation to the RPIP Wilson Cook advised:[190]

> RPIP is a targeted 4-year $48 m capital expenditure programme with the objective of enhancing power supplies in rural areas. The programme commenced in FY 2005 and is scheduled for completion in FY 2008. Expenditures of $10.3 m and $10.6 m have been proposed for the first two years of the period to complete the four-year programme. The nature of this expenditure appears to be reliability and capacity improvement that would normally have a lower priority due to the small number of customers affected or that would be uneconomic. We were advised that the full expenditure is included in the Corporation's proposed expenditure but that Government is to contribute 50% by way of accepting a lower dividend.
>
> We considered the proposed level of expenditure to be reasonable for the work undertaken but do not express any opinion on the technical or economic merit of the programmes.

498. The Authority notes and accepts the Department of Treasury and Finance's clarification regarding the funding arrangements for the RPIP which does not align with Western Power's proposal, as summarised above by Wilson Cook. The Authority notes that Western Power will need to confirm that its capex and capital contributions forecasts reflect the contributions made by State and local governments respectively.

499. In relation to distribution metering capex the Authority notes that Western Power is proposing to spend an average of $7.5 million per annum on metering capex over the initial access arrangement period. Wilson Cook noted:

> … the historical average was boosted by a large level of expenditure in FY 2005. We were advised by the Corporation that this increase in FY 2005 was caused by "a review of work in progress status on numerous projects and activities, not to be repeated in future years". We have therefore made our assessment on the basis that the base level of metering capex is $4.5 m p.a.
>
> Expenditure is forecast to rise from $4.4 m in the first year of the period to $10.0 m in the third year. The increase in expenditure in the second and third years of the period arises from the introduction of a programme to replace 101,000 single-phase meters that do not meet the required accuracy class. The delay in commencing this programme has apparently been due to the constraints that Western Power has applied to its capital programme.
>
> We have reviewed the unit costs associated with the metering expenditure and the overall metering programme and are satisfied that the expenditure proposed is reasonable.

500. In relation to SCADA, IT and network support Wilson Cook considered that the proposed levels of expenditure were reasonable.

501. Wilson Cook made the following observations in relation to the reasonableness of total distribution capex:

> The average annual distribution capital expenditure over the period of $255.8 m equates to around 6.2% of the replacement cost of the distribution network asset base. This level is at the high end of the range that we would consider reasonable for a distribution business experiencing load growth of 3.3% p.a. and represents a significant increase on historical expenditure levels.

[190] Wilson Cook (2005), page 42.

> There are, however, a number of valid reasons for accepting this level of expenditure during the period including, particularly, the current high levels of feeder utilisation, the desirability of improving the present poor levels of distribution network reliability, and the desirability of rectifying latent safety risks.
>
> Overall, therefore, we consider the level of total distribution capex to be acceptable but for reasons we explain later in this report, we believe that it ought to be accompanied by more challenging network reliability improvement targets.[191]

502. The Authority acknowledges the operational and technical requirements necessary for the safe and reliable operation of the network including the requirement for increased capex in the initial access arrangement period. The Authority accepts Wilson Cook's recommendations in relation to transmission and distribution network capital expenditure forecasts for the initial access arrangement period. The service standards to underpin the required capex are discussed in detail in the Service Standards Benchmarks section of this draft decision.

503. However, to ensure transparency and consistency with required amendments elsewhere in this draft decision and the appropriate treatment of capital contributions some amendments are required. In addition, as discussed in the Capital Contributions Policy section of the draft decision, Western Power's proposal in relation to its "Urban Shared Network" is not accepted. As a consequence Western Power may need to review the balance of its forecast capex and capital contributions.

504. The Authority notes that, via Western Power's periodic reporting against established cost performance indicators, interested parties and the Authority will obtain a clearer view of the reliability of Western Power's capex forecasts. The Authority will be promulgating regulatory reporting information guidelines to assist Western Power in this regard. Regulatory reporting information guidelines will be released following the finalisation of this access arrangement determination.

505. The Authority considers that Western Power's proposed capital expenditure for the initial access arrangement period is consistent with the Access Code requirements. However, Western Power's capital expenditure forecasts are required to be clarified, as noted in the required amendments below.

[191] Wilson Cook (2005), page 44.

Required Amendment 39

Western Power to adopt the asset groupings for its transmission and distribution network capital expenditure in accordance with Table 31 of this draft decision.

Required Amendment 40

Western Power to adopt the capital expenditure and capital contributions in accordance with its section 51 response, subject to reviewing and amending the capital expenditure and capital contribution components of the SUPP and RPIP projects in real terms.

Required Amendment 41

Western Power to present the capital expenditure and capital contribution costs by asset grouping in real terms.

Required Amendment 42

Western Power to present the capital expenditure and capital contribution costs by expenditure type in real terms.

Capital Contributions

Access Code Requirements

506. In relation to the treatment of capital contributions in Western Power's price control, an amendment to the Access Code gazetted on 8 November 2005 deleted section 6.56 which had previously precluded the inclusion of capital contributions in the capital base.[192]

Western Power's Proposal

507. In its covering letter to the Authority[193] at the time of submitting its proposed access arrangement and access arrangement information Western Power foreshadowed the imminent amendment that would delete section 6.56 of the Access Code. As a result Western Power advised that it wished to adopt a methodology for the treatment of capital contributions from commencement of the initial access arrangement period whereby (i) capital contributions could be added to the capital base, and (ii) the amount of the capital contribution would be deducted from the approved total revenue in the year in which the capital contribution is made.

[192] WA Government Gazette 207/2005, deletion of Access Code section 6.56.

[193] Western Power correspondence dated 24 August 2005.

508. In part B of its access arrangement information Western Power deducts "capital contributions revenue" from its total annual revenue requirement for each of the transmission and distribution networks.[194]

509. In Attachment B of its response to the Authority's section 51 request Western Power provided a forecast of capital contributions for each of the distribution and transmission networks by asset class.

Interested Party Submissions

510. No submissions were received.

Authority's Assessment

511. Western Power's proposal for the treatment of capital contributions with effect from the commencement of the initial access arrangement period is not inconsistent with the Access Code and the methodology has been accepted by the QCA in previous regulatory decisions.[195]

512. The Authority considers that Western Power's proposal reflects the intent of the Access Code amendment which deleted the former section 6.56 of the Access Code which had precluded capital contributions from being included in the capital base.

513. Subject to the Capital Contributions Policy section in part B of this draft decision, in certain circumstances, Western Power receives capital contributions in cash or in-kind as part of a user's connection arrangements.

514. Western Power's proposed approach means that capital contributions are taken into the network's regulated asset bases and recognised in the year of receipt as a revenue flow with the regulated income from other sources adjusted accordingly in the same year. This approach is based on the theory that the financial impact of a capital contribution over the life of the affected asset can be equated to the present value of the resulting reduction in the regulated income over this period. The present value of this series should be equal to the original contribution.

515. The Authority considers that this is a reasonable approach as it also reduces record keeping and reporting requirements by not requiring separate asset registers to be kept for capital contributions to the covered networks.

516. However, to protect the interests of all users and Western Power, an adjustment mechanism should apply that reconciles forecast capital contributions with actual capital contributions over the initial access arrangement period. Otherwise in the event that actual capital contributions were less then forecast Western Power would under recover total revenue. Conversely if actual capital contributions were greater than forecast then, in the absence of an adjustment mechanism, Western Power would over recover. Given the proposed treatment for capital contributions the Authority considers that a capital contributions adjustment mechanism is consistent with the objectives and application of the IAM.

[194] Access arrangement information, pages 14-15.

[195] Issues Paper: Access Arrangement for the South West Interconnected Network, page 17.

Required Amendment 43

Western Power to confirm its proposed treatment of capital contributions occurring from the commencement of the initial access arrangement period.

Required Amendment 44

Western Power to include the transmission and distribution capital contribution figures provided in its section 51 response, as summarised at Table 26 and Table 28 of the Capital Expenditure section of this draft decision and adjusted to be presented in real terms.

Required Amendment 45

Western Power to include a capital contributions adjustment mechanism to account for any differences between forecast and actual capital contributions over the initial access arrangement period, consistent with the objectives and application of the investment adjustment mechanism.

Depreciation

Access Code Requirements

517. Section 6.70 of the Access Code requires that an access arrangement must provide for the depreciation of the network assets comprising the capital base, including the economic lives of each network asset, the depreciation method to be applied and the circumstance in which accelerated depreciation is proposed.

Western Power's Proposal

518. Western Power describes its proposed approach to the treatment of depreciation in clause 6 of its proposed access arrangement and has proposed asset groupings, asset lives and straight line depreciation for network assets in accordance with Table 29.

Table 29 Western Power's proposed network asset lives

Asset group	Asset life for depreciation purposes
Distribution wood pole lines (Weighted Average)	41 years
Distribution steel pole lines	50 years
Distribution underground cables	60 years
Distribution transformers	35 years
Distribution switchgear	35 years
Public lighting	20 years
Distribution meters and services	25 years
Transmission transformers	50 years
Transmission reactors	50 years
Transmission capacitors	40 years
Transmission circuit breakers	50 years
Transmission lines – steel tower	60 years
Transmission lines – wood pole	45 years
Transmission cables	55 years
Transmission Non-Network Assets (Weighted Average)	16.8 years
SCADA and Communications (Weighted Average)	34.1 years

519. Western Power has proposed that its depreciation methodology will be applied to the Table 29 asset groups for the purpose of calculating target revenue during the access arrangement period.

520. Clause 6.3 of Western Power's proposed access arrangement states that depreciation provisions in the target revenue relate to non-network assets such as buildings and information technology and systems and will be established in accordance with depreciation schedules applicable for taxation purposes.

521. In determining the capital base for the commencement of the access arrangement period Western Power has assumed the same asset category composition to the June 2004 asset base for capital expenditure from 1 July 2004 to 30 June 2006 and then derived a "an appropriate depreciation charge". This process is described at pages 76 and 118 of Western Power's access arrangement information for transmission and distribution assets respectively.

522. Western Power has not provided any information in relation to circumstances in which it might seek to apply accelerated depreciation to an asset or group of assets. However, in Appendix 7 to its access arrangement Western Power proposes a price control methodology that takes into account accelerated depreciation.

523. As noted previously in this draft decision, Western Power informed the Authority on 1, 2 and 3 March 2006 that some assets previously classified as "disposals" were to be considered "redundant capital". The assets under consideration are overhead equipment assets replaced before the end of their useful lives under the SUPP.

524. Western Power advised that it proposes that the Authority remove those "redundant assets" from the asset base for regulatory purposes in the year in which they are removed and accelerate the depreciation allowances for those assets over one year.

525. In its response to the Authority's section 51 request Western Power provided "economic lives" for assets which were different to those which appeared in its proposed access arrangement. Where applicable, information provided as a result of a section 51 notice from the Authority is considered to supplant or otherwise update information previously provided in Western Power's proposed access arrangement. Western Power's proposed economic lives are reproduced in Table 30.

Table 30 Economic lives proposed by Western Power in its section 51 response to the Authority

Asset group	Economic Life (years)
Distribution	
Distribution wooden pole lines	41 years
Distribution steel pole lines	None proposed
Distribution underground cables	60 years
Distribution transformers	35 years
Distribution switchgear	35 years
Streetlighting	20 years
Distribution meters and services	25 years
Distribution IT&T	10.16 years
Distribution SCADA & communications	10.16 years
Distribution Other, non-network	10.16 years
Transmission	
Transmission transformers	50 years
Transmission reactors	50 years
Transmission capacitors	40 years
Transmission circuit breakers	50 years
Transmission steel tower	60 years
Transmission wood poles	45 years
Transmission cables	55 years
Transmission metering	40 years
Transmission SCADA and Communications	34.15 years
Transmission IT&T	16.85 years
Transmission Other, non-network assets	16.85 years

526. Western Power also proposed a depreciation tax correction for each year of the access arrangement period, of between $4.7 million per annum in the first year and $5.2 million in the third year, in nominal terms. The proposed access arrangement and access arrangement information contain limited information on the rationale

behind the depreciation tax correction, although discussions between the Authority and Western Power have provided more information. The Authority understands (and Western Power has confirmed) that the depreciation tax correction is the difference between the proposed depreciation (calculated using the standard asset lives above), and depreciation calculated using new lives based on tax written down asset values.

Interested Party Submissions

527. No submissions were received.

Authority's Assessment

528. The Authority notes that, for the purposes of determining target revenue in accordance with chapter 6 of the Access Code, economic lives must be determined for the relevant asset groupings in order to apply depreciation over the access arrangement period.

529. The Authority accepts the asset groupings proposed by Western Power in its section 51 response, except for the omission noted in Table 30.[196]

530. The Authority is concerned that Western Power's proposed approach to the determination and allocation of depreciation lacks consistency in its application. Section 6.3 of Western Power's proposed access arrangement lacks specificity and could cause confusion with the network asset lives for depreciation. For example, Western Power proposed asset lives for transmission non-network assets and SCADA and Communications equipment in Table 28 but then also made reference to "non-network assets", including "information technology and systems" in section 6.3 of its proposed access arrangement as being subject to "depreciation schedules applicable for taxation purposes".

531. The Authority has assessed Western Power's proposed economic lives for depreciation purposes of its network assets. The Authority has adopted Western Power's proposed economic lives having had regard also to the generally accepted economic life for the particular asset group and the advice of Wilson Cook which concluded that the lives assigned were reasonable.[197]

532. The Authority considers that Western Power's methodology of applying straight line depreciation in accordance with the relevant economic life for the asset groupings is reasonable and consistent with the Access Code requirements.

533. However, Western Power's proposed treatment of depreciation of network assets is assessed as not meeting the requirements of section 6.70 of the Access Code due to some inconsistencies between what was proposed by Western Power in different sections of its access arrangement, price control methodology, section 51 response and revenue models.

534. In order to assess the accelerated depreciation amounts proposed by Western Power, the Authority needs to be satisfied of two matters. Firstly, the Authority needs to be certain that assets are redundant capital, as claimed by Western Power. This issue is dealt with in the Redundant Capital section of this draft

[196] For distribution steel pole lines.

[197] Wilson Cook (2005), page 20.

decision and also below. Secondly, it needs to be certain that the amounts of accelerated depreciation, and the rate of accelerated depreciation, are reasonable and appropriate under the Access Code.

535. On the first issue, section 6.70, 6.61 and 6.62 of the Access Code countenance that there are assets for which depreciation may be accelerated.

536. The Authority must (via section 6.70) consider the "circumstances in which the depreciation of a network asset may be accelerated". On this matter, the Authority is not satisfied with the information provided by Western Power in its proposed access arrangement and access arrangement information. While the Authority understands that the proposed redundant capital relates to the SUPP, the Authority has assessed that it does not have sufficient information from Western Power at this time, for the reasons noted in the Redundant Capital section of this draft decision. In addition, for assets which could be re-used in other parts of the network, the claim of redundancy could not be supported.

537. The Authority has also considered the approach set out by Western Power for the depreciation tax correction. The Authority considers it is not appropriate to adjust cash-flows for taxation, whether for depreciation allowances or company tax equivalents in a pre-tax model.

538. In order to address the inconsistencies and omissions between Western Power's proposed access arrangement, access arrangement information and section 51 response, the Authority considers that the economic lives and asset groups and descriptions detailed in Table 31 are more appropriate and consistent with the Code objective.

Table 31 Authority's assessment of asset groupings and economic lives

Asset group	Economic Life (years) for depreciation purposes
Distribution	
Distribution lines - wood poles	41 years
Distribution lines - steel poles	50 years
Distribution underground cables	60 years
Distribution transformers	35 years
Distribution switchgear	35 years
Street lighting	20 years
Distribution meters and services	25 years
Distribution IT&T	10.16 years
Distribution SCADA & communications	10.16 years
Distribution Other, non-network	10.16 years
Transmission	
Transmission transformers	50 years
Transmission reactors	50 years
Transmission capacitors	40 years
Transmission circuit breakers	50 years
Transmission lines - steel towers	60 years
Transmission lines - wood poles	45 years
Transmission cables	55 years
Transmission metering	40 years
Transmission SCADA and Communications	34.15 years
Transmission IT&T	16.85 years
Transmission Other, non-network assets	16.85 years

Required Amendment 46

Western Power to amend its proposed access arrangement to be consistent with its section 51 response and to identify asset groupings and economic lives for depreciation purposes in a manner consistent with Table 31 of this Depreciation section of the draft decision.

Required Amendment 47

Western Power to confirm its adoption of straight line depreciation and any proposed accelerated depreciation, if applicable.

Required Amendment 48

Western Power to make consequential amendments to its proposed access arrangement to ensure there is no ambiguity in relation to which asset grouping applies to capital items.

Required Amendment 49

Western Power to remove the depreciation tax correction.

Operating and Maintenance Expenditure

Access Code Requirements

539. Section 6.40 of the Access Code prescribes the requirements in relation to the assessment of non-capital costs. The non-capital costs component of total costs for a covered network must only include those non-capital costs which would be incurred by a service provider efficiently minimising costs.

540. Non-capital costs comprising operating and maintenance expenditure (**opex**) during the access arrangement period are to be added as a component into the total revenue requirement for the distribution and transmission businesses. The forecast opex requirements can only be added into the Western Power cost bases subject to meeting the requirements of sections 6.40 to 6.42 of the Access Code.

Western Power's Proposal

Transmission Network opex

541. In its access arrangement information Western Power has proposed increases in transmission opex from approximately $60 million in 2003/04 to approximately $87 million in 2008/09.[198] Of this, maintenance expenditure remains reasonably constant, while transmission operating expenditure increases by 46 per cent during the regulatory period. Western Power attributes this to the following cost drivers:

- the impacts of previous budget constraints;
- facilitation of market reform;
- asset replacement due to the advancing age of Western Power's transmission network;
- facilitating the connection of additional generation capacity;
- compliance with more onerous statutory obligations;
- further work required regarding the optimisation of asset maintenance expenditure; and
- forecast increases to insurance costs.

Distribution Network opex

542. In its access arrangement information[199] Western Power has proposed to increase distribution operating expenditure from approximately $140 million in 2004/05 to approximately $182 million in 2008/09 which Western Power attributes to similar drivers as for transmission opex, plus the following additional matters:

- reliability;
- whole of life efficiencies;
- increasing asset base;
- increasing resource costs;
- metering services;
- call centre costs; and
- corporate support.

543. Western Power provides additional background information in Appendix 7 of its access arrangement information. The bulk of Western Power's forecast increase is in relation to maintenance of the distribution network.

Rural Power Improvement Program

544. The RPIP is jointly funded by the Office of Energy (50 per cent). Western Power has not identified any opex related costs for the RPIP.

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[198] Access arrangement information, pages 64-69.

[199] Access arrangement information, pages 112-117.

State Underground Power Program

545. The SUPP is jointly funded by the State Government (25 per cent) and Local Government Authorities (50 per cent).

546. The SUPP has a significant opex element in each year of the initial access arrangement period (averaging approximately $3.5 million per annum).

Systems Management

547. Western Power's response to the Authority's section 51 request[200] in relation to Systems Management costs advised:

> The proposed AA currently includes 100% of the forecast operating expenditure for the East Perth Control Centre and all its present functions, as referenced in Figures 10 and 17 of the AAI for "Network Operations"…

The response included the revised opex forecasts in Table 32 and Table 33.

Table 32 Western Power's Network Operations forecasts, including System Management (in nominal $ million)

OPEX	2006/07	2007/08	2008/09
Transmission	12.1	13.3	13.2
Distribution	8.5	8.8	9.2

Table 33 Western Power's response to Section 51 request regarding System Management costs (in nominal $ million)

System Management Costs		2006/07	2007/08	2008/09
Transmission	Network Management	10.0	11.0	10.9
	System Management	**2.1**	**2.3**	**2.3**
	Total	12.1	13.3	13.2
Distribution		8.5	8.8	9.2

And:

> The present transmission functions are an integrated combination of "network management" and "system management" activities, the latter typically comprising generation despatch and coordination of major transmission circuit outages for maintenance. Western Power has reviewed these forecasts in detail to separately identify the specific costs associated with the system management function, as shown below:
>
> It is now proposed that the identified System Management operating costs are, subject to the acceptance of the Independent Market Operator, to be removed from

[200] The Authority issued a notice to Western Power to give information or documents under section 51 of the Economic Regulation Authority Act 2003 on 9 November 2005.

the AA forecast expenditures and recovered from market participants via a separate mechanism provided by the Wholesale Electricity Market Rules.

548. The Authority notes that Systems Management is to be a ringfenced business unit within Western Power. Its budget is to be funded in accordance with the Market Rules.

549. Western Power's proposed transmission and distribution network opex costs by expenditure type are summarised in Table 34 and Table 35.

Table 34 Western Power's proposed Transmission Network Opex ($ million in nominal terms)[201]

	2006/07	2007/08	2008/09
Maintenance Strategy	4.0	4.1	4.2
Preventative Condition	6.0	6.1	6.2
Preventative Routine	8.1	8.3	8.5
Corrective Deferred	2.1	1.9	1.9
Corrective Emergency	1.0	0.9	0.9
Maintenance (Total)	**21.2**	**21.3**	**21.7**
SCADA & Communications	5.4	5.6	5.7
Network Operations	12.1	13.3	13.2
IT&T	6.6	7.3	7.8
Network Support	31.6	35.5	40.6
Transmission Total Opex	**76.9**	**82.9**	**89.0**

[201] Western Power's response to the section 51 request dated 16 November 2005.

Table 35 Western Power's proposed Distribution Network Opex ($ million in nominal terms)[202]

	2006/07	2007/08	2008/09
Maintenance Strategy	6.3	6.3	6.4
Preventative Condition	13.5	13.8	14.3
Preventative Routine	23.3	23.9	24.8
Corrective Deferred	11.9	11.1	10.9
Corrective Emergency	22.4	21.0	20.5
Maintenance (Total)	**77.3**	**76.0**	**76.8**
Reliability	4.5	4.5	4.5
SCADA & Communications	0.9	0.9	0.9
Network Operations	8.5	8.8	9.2
IT&T	11.2	12.8	15.1
Metering	14.4	14.4	15.9
Call Centre	6.6	6.9	7.2
Network Support	33.0	37.4	37.3
Distribution Total Opex	**156.2**	**161.6**	**166.9**

550. On 13 January 2006 Western Power provided further additional information to the Authority on transmission and distribution network support and distribution network operations opex. Western Power advised that network support opex was revised as underpinning assumptions had been revised in light of the finalisation of arrangements for disaggregation. The network operations information addressed queries raised by Wilson Cook, the Authority's engineering consultant.

Interested Party Submissions

551. Several interested parties expressed concern at the level of Western Power's proposed increase to network revenue. Newmont noted that, in part, this appeared to be driven by increased operating costs and expressed the need to avoid a price shock to users.[203]

552. In relation to network charges Perth Energy noted that it considered the Authority should "fully review the appropriateness of the proposed price outcome in addition to the merits of Western Power's justification for it".[204]

[202] Western Power's response to the section 51 request dated 16 November 2005.

[203] Newmont, page 3.

[204] Perth Energy, page 1-2.

553. The Chamber of Commerce and Industry of Western Australia noted that one of the key issues for its members was the need to thoroughly examine any rise in network charges as the avoidance of price shock in the immature electricity market has been a major tenet in pricing of the existing access regime.[205]

554. The Department of Treasury and Finance advised:[206]

> As a Government Trading enterprise (GTE) WP [Western Power] operates at arms length from Government and has considerable management autonomy. Consistent with GTE governance arrangements, the Government has not imposed any real operating expenditure constraints on WP and WP has been free to allocate expenditure to recurrent items.

Authority's Assessment

555. The Authority engaged Wilson Cook as engineering consultants to review Western Power's proposed opex. The terms of reference, in relation to opex, required Wilson Cook to review and comment on:

- the reasonableness, and appropriateness of, or recommend alternatives to, the components and values in Western Power's SWIN transmission and distribution networks proposed opex;
- relevant Western Power consultants' reports of opex forecasts for the transmission and distribution businesses;
- Western Power's opex forecasts when compared with historical expenditure; and
- Western Power's opex forecasts and historical averages when compared with data for similar network businesses elsewhere.

556. Wilson Cook was required to comment on any discrepancies found and make any recommendations considered appropriate. In completing its review Wilson Cook was to have regard to "industry best practice", applicable legislation, precedents relevant to regulated energy infrastructure in Australia including the objectives in section 2.1 of the Access Code and the characteristics of the SWIN, as defined in the *Electricity Industry Act 2004*.

Transmission network maintenance expenditure

557. Wilson Cook noted, in relation to transmission network maintenance expenditure, that Western Power is proposing to spend an average of $21.4 million per annum on maintenance over the period which is a similar level to the average of $21.5 million per annum over the previous three years. Wilson Cook also reviewed the list of key maintenance activities proposed by Western Power and found them to be appropriate.[207]

558. Wilson Cook concluded that it considered the proposed transmission maintenance expenditure to be reasonable and consistent with the costs incurred by a prudent service provider acting in accordance with good electricity industry practice.

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[205] Chamber of Commerce and Industry, page 2.

[206] Department of Treasury and Finance, pages 1-2.

[207] Wilson Cook (2005), page 33.

Transmission network operations expenditure

559. Wilson Cook noted that network operations expenditure, as proposed by Western Power, is the transmission-related share of the costs of the Systems Operations Group which provides control, switching, operations planning and monitoring for both the transmission and distribution networks.

560. Wilson Cook advised:[208]

> Western Power is proposing to spend an average of $12.9 m p.a. on network operations over the period, compared to an average of $8.3 m over the previous three years, an increase of 56%. Expenditure is forecast to rise from $12.1 m in the first year of the period to $13.2 m by the end of the period. Expenditure has been rising steadily since FY 2003 when it was $7.7 m.
>
> Subsequent information provided to us by Western Power indicates that, of the proposed expenditure, sums of $2.1 m in FY 2007 and $2.3 m in FY 2008 and FY 2009 relate to system management activities and should be removed from the forecast expenditures in the Access Arrangement as they will be recovered from market participants via a separate mechanism under the Wholesale Electricity Market Rules.
>
> With these adjustments, the average expenditure proposed for the period drops to $10.7 m, an increase of 29% on the average spent over the previous three years. The Corporation considers that this increase is driven by three factors: projected increases in labour costs of 4% and in materials costs of 1%; an increase in the size of the asset base as a result of the capital investment programme, requiring extra SCADA support staff; and an increase in operational personnel to carry out administrative tasks and data-gathering, following completion of the SCADA capital project. We accepted the explanations and the revised expenditure as reasonable.

561. The Authority accepts Wilson Cook's assessment, and notes that for the initial access arrangement period Western Power has nominated System Management costs of $2.1 million to $2.3 million per annum to be recouped as System Operations Fees in accordance with the Market Rules.

Other transmission network opex

562. In its section 51 response Western Power included proposed increases to opex for both "SCADA and communications" and "information technology" related expenditures. Wilson Cook advised that it had investigated the reasons behind the proposed increases to these cost categories and considered the costs to be reasonable and consistent with the costs incurred by a prudent service provider acting in accordance with good electricity industry practice.

563. In relation to network support proposed expenditures Wilson Cook advised:[209]

> Western Power is proposing to spend an average of $35.9 m p.a. on network support over the period, compared to an average of $18.0 m over the previous three years. This represents an increase of 99%. Expenditure is forecast to rise from $31.6 m in the first year of the period to $40.6 m by the end of the period. The only supporting information provided in the Access Arrangement Information was in section 5 of appendix 7. The totals shown in figure 10 of the Access Arrangement Information and the figures separately provided to us in a spreadsheet by Western Power are significantly greater than the totals in section 5 of the appendix. We were advised

[208] Wilson Cook (2005), page 34.

[209] Wilson Cook (2005), pages 34-35.

> during our discussions with Western Power that the numbers in the submission had increased due "to some late allocations from corporate". We requested further supporting information for the difference but were provided only with a breakdown of the expenditure under the categories of disaggregation, market reform, and business as usual. We noted that increases were forecast in all three categories but that no further supporting information was provided to indicate the purpose of the increased expenditure or why such large increases were necessary.
>
> In the absence of satisfactory supporting information for the large increase in expenditure, we are not able to endorse it. We propose that an adjustment be made to cap network support expenditure at the level forecast for FY 2006, plus an allowance for inflation.

564. Taking into account the reduction of $2.2 million per annum for System Management costs that are to be funded via provisions of the Market Rules, Wilson Cook notes the average proposed transmission network opex is $80.7 million per annum which equates to 3.1 per cent of the replacement cost of the transmission assets. Wilson Cook advised that this represents a considerable increase on historical levels and is at or, possibly above, the upper bound of the range it would consider reasonable and consistent with that which would be incurred by a prudent service provider acting in accordance with good electricity industry practice.

565. However, Wilson Cook notes that network maintenance expenditure is to be maintained at around current levels and that the majority of the increase relates to indirect expenditures and associated services such as network operations, SCADA and communications. In Wilson Cook's view, this did not correlate with the reasons quoted by Western Power for expenditure increases.

566. Wilson Cook therefore recommended that:[210]

> On balance, due to the overall high level of opex and the lack of supporting information for increases in network support costs, we recommend that a reduction be made in allowed opex of an amount to bring network support costs back to FY 2006 levels (inflation adjusted).

567. The Authority concurs with Wilson Cook's recommendations for transmission network opex. In relation to network support the Authority considers that Wilson Cook's recommended reduction is warranted given the extent of the increase and lack of detail underpinning the proposed amounts. The Authority also notes the Department of Treasury and Finance's clarification regarding operating expenditure in previous years. It is the Authority's view that amending the transmission network support costs in accordance with Wilson Cook's recommendations will meet the price control objectives of section 6.4 of the Access Code. The Authority has assessed the transmission network opex forecasts in real terms which are summarised in Table 36.

568. Wilson Cook reviewed the additional information provided by Western Power on 13 January 2006 on its transmission and distribution network support and distribution network operations opex. In its response to the Authority on 17 January 2006 Wilson Cook advised, in relation to network operations costs, that based on the information received it did not propose any adjustment to its earlier Final Report recommendations.

[210] Wilson Cook (2005), page 35.

Table 36 Authority's assessment of Opex for Western Power's Transmission Network ($ million in real terms)[211]

Financial year ending:	30 June 2007	30 June 2008	30 June 2009
Maintenance Strategy	3.90	3.91	3.92
Preventative Condition	5.82	5.78	5.77
Preventative Routine	7.93	7.89	7.89
Corrective Deferred	2.07	1.81	1.72
Corrective Emergency	0.95	0.86	0.81
SCADA & Communications	5.27	5.29	5.30
Network Operations	9.79	10.42	10.10
IT&T	6.40	6.92	7.24
Network Support	28.34	28.52	28.59
Total Transmission Opex	**70.48**	**71.37**	**71.33**

569. After these adjustments the average annual level of transmission opex for the period is approximately $71 million (real) which represents an increase of approximately 16 per cent over the average level for the three previous financial years ending 2003 to 2005.

570. The reductions in the Authority's assessed opex for Western Power's transmission network relate to the amendments to Network Operations to account for System Management costs and the reductions to Network Support in accordance with Wilson Cook's recommendation at paragraph 566.

Distribution network opex

571. Western Power has proposed $484.8 million of opex for its distribution network over the initial access arrangement period in accordance with the estimates by expenditure type in Table 35.

572. Wilson Cook assessed Western Power's proposed distribution opex increases against the average historical and noted that, as proposed by Western Power, average total distribution opex would be 28 per cent higher compared to the previous three years, noting also that there was a step change increase from financial year ending 30 June 2004 to financial year ending 30 June 2005.

Distribution network maintenance and reliability expenditure

573. Given that many of the drivers of increased expenditure outlined by Western Power related to maintenance Western Power has proposed an increase of 5 per cent

[211] Consistent with the Authority's revenue modelling methodology these figures are expressed in real terms, as at 30 June 2006, as compared to Western Power's proposed estimates which were presented in nominal terms.

compared to the average over the previous three years. Wilson Cook considered this to be a modest increase.

574. Wilson Cook also noted that Western Power:[212]

> … is now implementing improved strategies to monitor asset condition and improve its preventive programmes and this good network management practice should allow it to reduce corrective maintenance as a proportion of total maintenance and to achieve network reliability improvements. This is another area in which we believe that efforts to reach those goals should be accelerated.
>
> We noted that reliability opex was listed as a separate category from maintenance. We appreciate the desire to emphasise this item but consider that the type of expenditure planned under the reliability heading during the period is essentially preventive maintenance and should be included under the maintenance heading. The proposed average annual maintenance expenditure over the period, including the expenditure proposed for reliability improvements, equates to around 1.9% of the replacement cost of distribution asset base and is considered reasonable for the period.

Distribution network operations expenditure

575. Wilson Cook noted that network operations expenditure, as proposed by Western Power, is the distribution-related share of the costs of the Systems Operations Group which provides control, switching, operations planning and monitoring for both the transmission and distribution networks.

576. Wilson Cook advised:[213]

> Western Power is proposing to spend an average of $8.8 m p.a. on network operations over the period, compared to an average of $5.5 m over the previous three years. This represents an increase of 60%. Expenditure has been rising steadily since FY 2003 when it was $3.9 m.
>
> The supporting information in appendix 7 of the Access Arrangement Information in respect of these costs is inconsistent with the reported actual expenditure. An explanation was sought and Western Power provided an updated 'Figure 108' and new wording for a paragraph on p. 136 of appendix 7. The changed wording contradicted the earlier reason for the proposed increase in expenditure.

577. Wilson Cook concluded that it had not been provided with sufficient supporting information to assess the reasonableness of the increased expenditure in this item. Wilson Cook recommended that a reasonable level of network operations expenditure be the amount forecast for the year ending 30 June 2006 indexed for each year of the access arrangement period.[214]

Metering expenditure

578. In relation to metering Wilson Cook advised that:[215]

> Western Power is proposing to spend an average of $14.9 m p.a. on metering opex over the period, compared to an average of $9.1 m over the previous three years.

[212] Wilson Cook (2005), page 46.
[213] Wilson Cook (2005), page 47.
[214] Wilson Cook (2005), page 47.
[215] Wilson Cook (2005), page 47.

> This represents an increase of 64%. Expenditure is forecast to rise from $14.4 m in the first year of the period to $15.9 m by the end of the period.
>
> Expenditure under this category covers: meter reading; data management (which involves processing of metering data for settlement and customer billing); meter provision (including the maintenance of high voltage meter installations and related laboratory activities); and inspection services (which include installation inspections, contractor auditing and the investigation of breaches).
>
> We were advised that approximately 50% of meter reading was contracted out with the balance undertaken in-house. We were also advised that meter reading costs were benchmarked every two years and that the benchmarking showed Western Power to be one of the better performers.
>
> Additional expenditure of $4.4m has been included in this category for surveys of network connection points. The cost of inspection services is expected to increase in line with the rate of new connections.

579. Wilson Cook assessed the total metering expenditure for this category on a cost per customer basis and considered it reasonable and consistent with the costs incurred by a prudent service provider acting in accordance with good electricity industry practice. Wilson Cook also considered the proposed increases, after taking into account the extra survey work and the expected increase in connections, to be reasonable and consistent with the costs incurred by a prudent service provider acting in accordance with good electricity industry practice.

580. The Authority accepts Wilson Cook's assessment while noting the importance of appropriately defining metering services and allocating the metering costs inherent in the proposed reference tariffs, as discussed in the Reference Services section of this draft decision.

Other distribution network opex

581. In relation to call centre costs Wilson Cook advised that it assessed call centre costs on a cost-per-customer basis and considered it to be reasonable and consistent with the costs incurred by a prudent service provider acting in accordance with good electricity industry practice.

582. Wilson Cook assessed Western Power's proposal to spend an average of $0.9 million per annum on SCADA and communications opex over the period, compared to an average of $0.2 million (per year) over the previous three years. Western Power advised Wilson Cook that distribution opex for SCADA and communications was combined with transmission until 2003/04 but with the implementation of the new SCADA distribution master station these costs were separated in 2004/05. Wilson Cook considered the costs to be reasonable for the size and nature of Western Power's network.

583. Western Power is proposing to spend an average of $13 million per annum on IT over the initial access arrangement period, compared to an average of $8.3 million per annum over the previous three years. Wilson Cook noted that this represents an increase of 56 per cent and that the reasons cited for the increased expenditure included: additional opex costs associated with the additional systems outlined in the capex section of this report, increased employee numbers and the conversion of manual systems to electronic systems. Wilson Cook concluded that it considered Western Power's explanations in relation to information technology opex costs as reasonable and consistent with the costs incurred by a prudent service provider acting in accordance with good electricity industry practice.

584. For distribution network support costs Western Power is proposing to spend an average of $35.9 million per annum over the period, compared to an average of $25 million per annum over the previous three years, representing an increase of 44 per cent.

585. Wilson Cook advised:[216]

> Approximately 30% of distribution network support costs for the period relate to insurance costs. Insurance premiums have risen significantly over the last two years and the Corporation has projected that these will continue to rise. We noted that these projections were based on an allocation of present group insurance costs and the Corporation has yet to get insurance quotes for the stand-alone network business.
>
> The only supporting information provided in the Access Arrangement Information was in section 5 of appendix 7. The totals shown in figure 17 of the Access Arrangement Information and the figures separately provided to us in a spreadsheet by Western Power are significantly greater than the totals in section 5 of the appendix. We were advised during our discussions with Western Power that the numbers in the submission had increased due "to some late allocations from corporate". We requested further supporting information for the difference but were provided only with a breakdown of the expenditure under the categories of disaggregation, market reform, and business as usual. We noted that increases were forecast in all three categories but that no further supporting information was provided to indicate the purpose of the increased expenditure or why such large increases were necessary.
>
> In the absence of satisfactory supporting information for the large increase in expenditure, we are not able to endorse it. As with transmission network support, we propose that an adjustment be made to cap network support expenditure at the level forecast for FY 2006, plus an allowance for inflation.

586. In summary Wilson Cook advised:[217]

> The average annual operation and maintenance expenditure over the period of $161.6 m equates to a level of 3.9% of the replacement cost of the distribution assets or around $200 per customer. This level is at the high end of the range of what we would expect for a distribution business with the characteristics of Western Power, a business with a mix of urban and rural loads and without any sub-transmission network.
>
> As outlined above we reviewed individual expenditure categories and accepted that for the direct network maintenance and operating costs there are valid reasons for the expenditure. These include a failure to complete sufficient preventive maintenance in previous years leading to a backlog and past budget constraints on capital expenditure that have resulted in higher levels of asset failure due to age or overloading. We have concerns over the increases that have been proposed for indirect costs, particularly for network operations and network support costs for which insufficient supporting information was provided.
>
> We appreciate that the Corporation's business units are to become stand-alone entities in place of the present, integrated, structure and that there is no history of expenditure on which to base the projections in this cost category. However, on balance, due to the overall high level of opex and the lack of supporting information for increases in network operations and network support costs, we recommend that

[216] Wilson Cook (2005), page 49.

[217] Wilson Cook (2005), page 49.

reductions be made to bring these two items back to forecast FY 2006 levels (inflation adjusted[218]).

587. Wilson Cook also reviewed the additional information provided by Western Power on 13 January 2006 on its distribution network support and distribution network operations opex. In its response to the Authority on 17 January 2006 Wilson Cook advised, in relation to network operations costs, that based on the information received it did not propose any adjustment to its earlier Final Report recommendations. In relation to distribution network support Wilson Cook considered that the additional information did not provide a sufficiently robust basis for a change in the opinion it stated in its Final Report in regard to these costs.

588. The Authority has considered Western Power's proposed distribution opex, having regard to Wilson Cook's analysis and accepts Wilson Cook's recommendations. It is the Authority's view that amending the distribution network support and network operations costs in accordance with Wilson Cook's recommendations will meet the price control objectives of section 6.4 of the Access Code and the Code objective.

589. The Authority has determined distribution network opex forecasts in real terms which are summarised in Table 37.

Table 37 Authority's assessment of Opex for Western Power's Distribution Network ($ million in real terms as at 30 June 2006)[219]

Financial year ending:	30 June 2007	30 June 2008	30 June 2009
Maintenance Strategy	6.11	6.00	5.93
Preventative Condition	13.14	13.13	13.22
Preventative Routine	22.67	22.67	22.95
Corrective Deferred	11.57	10.55	10.06
Corrective Emergency	21.87	19.92	18.99
Reliability	4.36	4.28	4.19
SCADA & Communications	0.85	0.86	0.87
Network Operations	7.20	7.20	7.20
IT&T	10.91	12.15	14.00
Metering	13.99	13.64	14.72
Call Centre	6.40	6.52	6.67
Network Support	25.10	25.10	25.10
Total Distribution Opex	**144.16**	**142.01**	**143.90**

[218] Wilson Cook used an inflation adjustment of 3 per cent per annum in its assessment.

[219] Consistent with the Authority's revenue modelling methodology these figures are expressed in real terms, as at 30 June 2006, as compared to Western Power's proposed estimates which were presented in nominal terms.

590. After these adjustments the average annual level of distribution opex for the period is approximately $143 million (real) per annum which represents an increase of approximately 14 per cent over the average level for the three previous financial years ending 2003 to 2005.

Required Amendment 50

Western Power to amend its proposed access arrangement to adopt the transmission network operations and maintenance expenditure, in real terms, by expenditure type, in accordance with Table 36 of this draft decision.

Required Amendment 51

Western Power to amend its proposed access arrangement to adopt the distribution network operations and maintenance expenditure, in real terms, by expenditure type, in accordance with Table 37 of this draft decision.

Weighted Average Cost of Capital

Access Code Requirements

591. Sections 6.64 to 6.69 of the Access Code address the determination of the weighted average cost of capital (**WACC**).

592. Pursuant to section 6.65 of the Access Code the Authority issued a determination of the preferred methodology for calculating the weighted average cost of capital for covered electricity networks on 25 February 2005 (**WACC Determination**).[220] Western Power is not bound by this determination. However, under section 6.64(a)(i) of the Access Code the Authority is to have regard to this determination when considering whether the methodology applied by Western Power is consistent with the requirements and objectives of the Access Code.

Western Power's Proposal

593. In accordance with the Authority's WACC Determination, Western Power adopted the Capital Asset Pricing Model (**CAPM**) as the financial model for estimating the WACC.

594. In its access arrangement information Western Power has undertaken financial modelling in real terms and has proposed a point estimate real pre-tax WACC that is set by reference to a range of WACC values derived from ranges of values of CAPM parameters for the purposes of determining its target revenue.

595. In its proposed access arrangement Western Power seeks a real pre-tax WACC for its covered network of 7.3 per cent.[221]

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[220] Economic Regulation Authority - Determination of the preferred methodology for calculating the weighted average cost of capital for covered electricity networks, 25 February 2005.

[221] Access arrangement, clause 7.1.

596. Western Power has applied a forecast of inflation of 2.6 per cent to the real pre-tax WACC to derive a nominal pre-tax WACC of 10.07 per cent. Western Power has noted there are a number of significant practical considerations arising in the application of the CAPM. In its access arrangement information Western Power provides information regarding some of the possible impacts and incentive effects of potential estimation errors in estimating the WACC.

Estimating the CAPM parameters and WACC

597. Western Power has provided supporting information to its proposed WACC in part B, chapter 7 (for the transmission network) and Part C chapter 6 (for the distribution network) of the access arrangement information, and consultancy reports by KPMG and SFG Consulting, which are provided at Appendices 4 and 5 to the access arrangement information, respectively.[222]

598. Western Power has proposed a point estimate of the WACC for its covered network of 7.30 per cent real pre-tax for the purpose of determining its target revenue for the first access arrangement period. Western Power indicates the consultancy advice upon which it has developed this proposal (provided at Appendix 4 and 5 to the access arrangement information) collectively provides "a compelling case for an estimated real pre-tax WACC in the range of 7.8 to 8.0 per cent", but also notes in its access arrangement information that:[223]

> The method prescribed in section 6.2(a) of the [Access] Code for determining Western Power's target revenue for the purposes of establishing its price control for the first access arrangement period necessarily requires that a point estimate of the WACC be applied.

599. In proposing a point estimate of the WACC, Western Power has emphasised that it has had regard to a number of important considerations, including moderating any price pressures, policymakers' expectations and previous views of the Authority.

600. Western Power has said that the proposed WACC does not represent an ambit claim (and is less than the range proposed by its consultants), and that it is consistent with the mutual desire to ensure that the approval process is not unduly delayed by time consuming debate over the proper range for the WACC.

601. Based on KPMG's advice Western Power proposes a WACC that is set by reference to a range of WACC values derived from ranges of values of CAPM parameters. These are set out in Table 38 below.[224]

602. Column four of Table 38 also details the parameter values adopted by Western Power in its revenue models used to derive the aggregate annual revenue requirement for each of its transmission and distribution networks.

603. In several cases the revenue modelled values differ materially to the range values advocated in column three of Table 38. Western Power has not provided any rationale for the divergence between its access arrangement information values and those used in its revenue modelling.

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[222] Western Power submitted the following consultancy reports in support of its WACC proposal:
KPMG - Weighted Average cost of Capital
SFG Consulting – A framework for quantifying estimation error in regulatory WACC

[223] Access arrangement information, page 86.

[224] Access arrangement information, page 89, table 11.

Table 38 Western Power's assumed values of CAPM parameters

Parameter	Basis of estimate[225]	Plausible range[226] Low	High	Western Power's Revenue Model parameter values[227]
Column 1	*Column 2*	*Column 3*		*Column 4*
Nominal risk free rate	Not quoted	Not quoted - 5.36% derived		6.00%
Real risk free rate *	Yield on 10 year Government indexed bond (20 day average)	2.69%		3.33%
Inflation rate	Not quoted	Not quoted - 2.60% derived		2.58%
Capital structure (equity to total value)	Comparables and regulatory decisions	40%		40%
Capital structure (Debt proportion)	Not quoted	Not quoted - 60% derived		60%
Equity beta	Comparables and regulatory decisions	0.90	1.10	0.82
Market risk premium	Historical stock returns and 10 year government yields; Regulatory decisions	6.0%	8.0%	8.201%
Debt margin*	BBB and BBB+ spreads from CBA Spectrum, and other allowances	1.49%	1.68%	0.8%
Value of imputation credits	Empirical evidence and regulatory decisions	50%	0%	50%

* Western Power noted its estimate will be subject to change to reflect prevailing interest rates at the time of the Authority's final decision

604. SFG has applied parameter values drawn from the ranges proposed by KPMG (except for the market risk premium for which SFG assumed a range around an expected value of 6, which is the lower bound of the range contemplated by KPMG) to construct a probabilistic estimate of the WACC using Monte Carlo simulation techniques. Table 39 lists SFG's assumptions for the probability distributions of each of the CAPM parameters.

[225] Access arrangement information, page 89. KPMG views reproduced from table 11.

[226] Access arrangement information, page 89. KPMG views reproduced from table 11.

[227] WACC parameters used in Western Power revenue models submitted to the Authority.

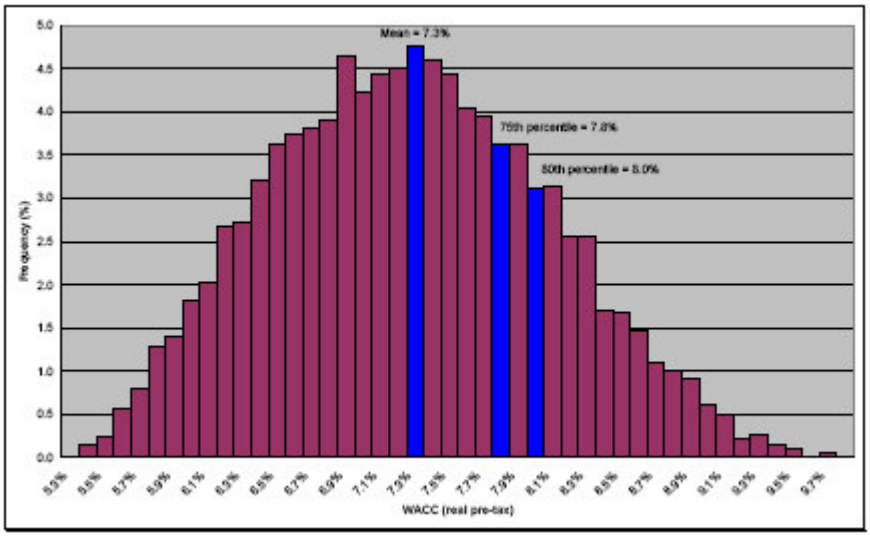
Table 39 Assumptions adopted in SFG Consulting's Monte Carlo simulation[228]

Parameter	Estimate of value	Probability Distribution
Real risk free rate	2.69%	None
Equity beta	0.9 – 1.1	Uniform
Market risk premium	Mean = 6% Standard deviation = 1.8%	Normal
Capital structure (Debt proportion)	60%	None
Debt premium	1.49% – 1.68%	Uniform
Value of franking credits	0.0 – 0.5	Uniform

605. Applying the assumptions set out in Table 39, SFG took a random draw from the distribution for each uncertain parameter, and calculated the resulting pre-tax real WACC. This process was repeated 10,000 times, yielding a histogram of WACC estimates, which is shown in Figure 3. The probability distribution of SFG's pre tax real WACC had the following characteristics:

- a mean value of 7.3 per cent;
- a standard deviation of 0.8 per cent;
- a 90 per cent confidence interval of 6.0 per cent to 8.6 per cent;
- a 75th percentile value of 7.8 per cent; and
- an 80th percentile value of 8.0 per cent.

Figure 3 Distribution of pre-tax real WACC estimates for 10,000 simulations



[228] Reproduced from Table 12 of access arrangement information, page 89.

Interested Party Submissions

606. Alinta has submitted that the Authority should fully consider and analyse the proposed WACC. Alinta has not, however, drawn attention to any particular matters that the Authority should address in its assessment.[229]

607. The Department of Treasury and Finance noted in its submission that Western Power's proposed WACC of 7.3 per cent pre-tax real is high relative to values determined in recent regulatory decisions and submitted that the Authority should critically assess the CAPM parameters proposed by Western Power.[230]

Authority's Assessment

608. In accordance with the requirements of section 6.64(a)(i) of the Access Code and pursuant to the Authority's WACC Determination,[231] the methodology the Authority has utilised is the CAPM for the purposes of assessing Western Power's proposed WACC.

609. The CAPM is used to estimate the required nominal after tax return to the equity share of an asset, with the most common formulation of the CAPM for this purpose being:

Equation 8

$$R_e = R_f + \beta_e (R_m - R_f)$$

where

R_f	=	the risk free rate
$(R_m - R_f)$	=	expected risk premium above the risk free rate for a well-diversified portfolio of equities (also known as the market risk premium – MRP)
β_e	=	the measure of the particular equity's relative risk, or its equity beta
R_e	=	the required WACC on that equity.

610. The return required by the other source of finance – debt – can be observed directly from the market for debt finance.

[229] Alinta, page 5.

[230] Department of Treasury and Finance, page 3.

[231] Economic Regulation Authority - Determination of the preferred methodology for calculating the weighted average cost of capital for covered electricity networks, 25 February 2005.

611. The WACC is the average of cost of equity and debt (weighted by the respective shares of equity and debt in the financing of the asset). That is:

Equation 9

$$WACC = R_e \ E/V + R_d \ D/V$$

where

E/V	=	equity as a proportion of total asset value (V)
D/V	=	debt as a proportion of total asset value (V)
R_d	=	cost of debt.

612. There are a number of different formulae for determining the nominal post-tax WACC. One popular form is the "Officer" nominal post-tax WACC.[232] The Officer form takes account of corporate income tax and the value of franking credits, and has the following formula:

Equation 10

$$\text{Nominal post-tax WACC} = R_e \ . E/V \ . (1- T_c) / ((1- T_c \ (1- \gamma)) + R_d \ . D/V \ . (1- T_c)$$

where

T_c	=	corporate tax rate
γ	=	value of franking credits created (as a proportion of their face value).

613. The nominal pre-tax WACC can thus be determined:

Equation 11

$$\text{Nominal pre-tax WACC} = R_e \ / (1- T_c(1- \gamma)) \ . E/V + R_d \ . D/V$$

614. A real pre-tax WACC can then be determined via the application of the Fisher equation whereby:

Equation 12

$$\text{Real pre-tax WACC} = (1 + \text{nominal pre-tax WACC}) / (1 + I_r) - 1$$

where

I_r	=	implied inflation rate.

Principles for calculating WACC

615. In making an assessment of Western Power's proposed WACC the Authority is required to consider the parameters listed in Table 40.

[232] ACG (2005(a)), page 13. ACG advise that the "Officer WACC" is the most widely cited as the target post-tax WACC.

Table 40 CAPM & WACC Parameters to be assessed

CAPM & WACC Parameters	Notation
Nominal risk free rate	Rf_n
Real risk free rate	Rf_r
Inflation forecast	I_f
Debt (D) to total assets (V) ratio	D/V
Equity (E) to total assets (V) ratio	E/V
Debt Risk Premium	D_P
Allowance for debt issuance costs (%)	D_{isc}
Cost of Debt: Risk Margin	$D_{RM} = D_P + D_{isc}$
Market Risk Premium (%)	MRP
Equity beta[233]	β_e
Cost of Equity	R_e
Corporate tax rate (%)	T_c
Franking credit value (gamma)	γ

616. The WACC represents the return expected by investors for investments of a given level of risk. The WACC should be set at a level that provides a return on invested funds that would be sufficient to attract and retain that investment.

617. In accordance with the Authority's WACC Determination and established regulatory practice, the following sections explain the Authority's determination and/or the benchmark assumptions considered by the Authority to be appropriate in estimating the WACC. In the process of assessing Western Power's proposed WACC the Authority has considered the reasonable range for the financial parameters underpinning the WACC, having regard to the regulatory framework to which Western Power is subject.

618. The Authority notes that of the CAPM and WACC parameters to be assessed:

- The nominal and risk free rates are directly observable from the market. The inflation forecast is then readily determined from the observed nominal and risk free rates. KPMG has adopted an averaging methodology in deriving its real risk free rate that appears to be consistent with the Authority's WACC Determination. The actual values underpinning the Authority's assessment of the WACC in this draft decision reflect the prevailing averaged interest rates on the final day of February immediately preceding the release of this decision.

[233] To be determined at an assumed gearing of 60 per cent.

- The market risk premium, equity beta, cost of debt margin and franking credit value are not directly observable from the market and must be derived from observed historical and/or market survey data.

619. As an initial matter, the Authority has considered the approach taken by Western Power and its consultants in specifying values of CAPM parameters, this approach being to specify, for some parameters, a range of possible or feasible values.

620. Western Power noted in its submission that there is some inherent uncertainty in determining a point estimate for some of the CAPM parameters. SFG was engaged by Western Power to provide a "framework for quantifying the uncertainty surrounding the estimated return on capital". The SFG methodology used Monte Carlo simulation techniques to construct a probability distribution around the WACC estimate. The underlying rationale of the SFG methodology being to present its views on uncertainty surrounding the estimated return on capital.[234]

621. The Authority accepts that Monte Carlo simulation is a useful tool, however as applied by SFG, the Authority considers that the nature of the distributions relating to the parameters assumed by SFG are insufficiently substantiated to provide confidence in the results of the Monte Carlo simulation.

622. ESC considered the application of Monte Carlo simulation in its final decision:[235]

> Merely because the Monte Carlo model itself is a mechanical process does not make the use of the model transparent as discussed above. The Commission considers that the key inputs to the calculation would be speculative, implying that transparency in the derivation of such inputs would be correspondingly low. In a similar vein, even if a probability distribution could be derived robustly for the WACC, the Commission notes that its primary objective requires it to exercise judgement on important trade offs on the basis of all of the information available, and does not consider that it is either necessary or appropriate to reduce this decision to an arbitrary cut off point on a probability distribution as proposed.

623. The Authority is not persuaded that the application of Monte Carlo simulation as proposed by SFG to assess uncertainty is necessarily an improvement over the more usual approaches, which may involve adopting a view on parameters for which there is particular uncertainty. Hence, the SFG assessment, while taken into account, was weighed against these other approaches in the Authority's assessment.

The risk-free rate

624. The risk free rate represents the required WACC on an asset with zero risk. Australian regulators have adopted similar approaches to deriving a proxy measure of the risk-free WACC by observing the yields on Commonwealth bonds — the generally accepted asset with a default risk nearest to zero.

625. In accordance with the Authority's WACC Determination a nominal risk free rate is to be determined as the 20-day average linear approximation of observed yields on Commonwealth 10 year bonds, taken at the final day of the month prior to a decision on an access arrangement. A real risk free rate is to be similarly determined from observed yields on Commonwealth 10 year index-linked bonds.

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[234] SFG Consulting, page 3.

[235] ESC (2005), page 336.

626. Values for the nominal and risk free rates as at the date of this draft decision are provided at Table 41, noting that these represent estimates that may be subject to change to reflect observed bond yields at the time of the Authority's final decision.

Forecast inflation

627. A forecast of inflation (I_f) over the regulatory period is derived from the nominal and real risk-free rates, using the Fisher equation:

Equation 13

$$(1 + I_f) = (1 + \text{nominal risk free rate}) / (1 + \text{real risk free rate})$$

where

I_f = forecast of inflation

The equity beta

628. The application of the CAPM requires an equity beta to be determined for the Western Power's transmission and distribution businesses. The beta value is a measure of these businesses' exposure to systematic risk, which relates to that portion of the variance in the return on an asset that arises from market-wide economic factors that affect returns on all assets, and which cannot be avoided by diversifying a portfolio of assets. The equity beta for a business is a measure of the non-diversifiable or systematic risk associated with a particular equity stock, and the sensitivity of the returns on the equity stock to variations in returns on a market portfolio of stocks.

629. For a business entity not listed on the stock market, such as Western Power, an equity beta is commonly estimated by estimating asset beta and debt beta values from observations of comparable listed entities and re levering these into an equity beta that is consistent with the assumed capital structure of the entity being examined.

630. Western Power's consultants have contemplated equity beta values in the range 0.9 to 1.0 at 60 per cent gearing for the transmission and distribution businesses. However, for the rate of return used in its revenue modelling Western Power has adopted an equity beta value of 0.82 for both its transmission and distribution networks.

631. In its WACC Determination, the Authority indicated a view that an appropriate value for the equity beta is 1.0.

632. The Authority notes there is some evidence for electricity and gas distribution companies in Australia and the USA which suggests an equity beta value at 60 per cent gearing of substantially less than one and possibly in the order of 0.5 to 0.7.[236] The Authority recognises, however, that adoption of an equity beta value in this order would be a substantial departure from regulatory precedent in Australia, which is for equity beta values of close to 1.0 and that there are factors that suggest that a departure from this precedent at the current time may not be warranted, in particular:

[236] Allen Consulting Group (2005(a)); Allen Consulting Group (2005(b)).

- beta estimates derived from 45-month and 60-week data sets for USA companies (which tend to be leading indicators of beta estimates from the more conventionally used 60 month data set) show a rising trend and a suggestion of values in the order of 0.7; and
- beta estimates remain (and always will remain) characterised by extremely large estimation errors, meaning that values consistent with regulatory precedent (and indeed values substantially in excess of 1.0) lie within reasonable statistical confidence intervals for beta estimates.[237]

633. In consideration of an appropriate equity beta value for Western Power, the Authority has considered whether there are any factors that would support a relatively high or low value for Western Power relative to values determined for other regulated electricity transmission and distribution systems in Australia.

634. In this regard, the Authority considers that a particularly pertinent factor is the revenue-cap form of price control to be applied to Western Power. This form of price control has the effect of substantially lessening the exposure of Western Power's transmission and distribution businesses to demand risk, and hence to risk associated with fluctuations in economic activity and electricity demand.

635. This was a matter taken into account by the QCA in its 2005 final determination on electricity distribution prices. The QCA determined that this factor justified determination of an equity beta value of 0.9 for the Queensland electricity distributors, as compared with regulatory precedent of a value of about 1.0.[238]

636. Taking into account the empirical evidence on beta values, the positions taken by other Australian regulators and the information submitted by Western Power in its access arrangement information, consultant reports and revenue models, the Authority takes the view that a reasonable range for the equity beta lies between 0.8 and 1.0 for a benchmark capital structure of 60 per cent debt and 40 per cent equity.

The market risk premium

637. The market risk (or equity) premium (**MRP**) is the difference between the expected return on a well-diversified portfolio of stocks and the risk free rate. It represents the reward that investors require to accept the uncertain outcomes associated with the diversified portfolio of equity investments relative to the risk free WACC.

638. For the purposes of determining its proposed WACC, Western Power's consultant – KPMG contemplated a MRP in a broad range from less than 6 per cent and explicitly up to 8 per cent, while SFG adopted a mean of 6 per cent, with a standard deviation of 1.8 per cent in its Monte Carlo simulation. Western Power however adopted a MRP of 8.201 per cent for the rate of return used in its transmission and distribution revenue models.

639. In its WACC Determination, the Authority indicated a view that an appropriate value for the MRP is 6.0.

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[237] Allen Consulting Group (2005(b)).

[238] QCA (2005(a)), pages 114-116.

640. The Authority is of the view that, in contemplating values of the MRP in excess of 6.0, Western Power and its consultants have given too great a weight to analysis of historical returns in the Australian stock market, and have not given adequate consideration to factors that suggest that the expectation of future market returns may be less than historical returns. These factors include:

- changes in the Australian stock market over the course of its history, particularly a shift in market composition away from resources stocks, which have higher risk and hence, on average, higher expected returns;
- changes in the Australian economy, particularly increased financial integration with other developed economies, which may enable greater diversification of risk and reduce the risk premiums required by investors; and
- declining transaction costs, which has also allowed greater diversification by market participants reducing the risk premium they require.[239]

641. The Authority considers that determining an appropriate assumption for the market risk premium should be directed at an assumption of the expected market risk premium at the current time. The Authority considers that estimates of realised market risk premia should be considered in the context of numerous factors that suggest a decline in the market risk premium over the last century[240] and analysis that suggests that, internationally, historically realised market risk premiums are likely to be in excess of those currently required or expected by investors.[241] Moreover, the Authority considers that attention should be given to values assumed for the market risk premium by investors and financial analysts at the current time, and to ex ante estimates of the market risk premium.

642. Values assumed for the market risk premium were revealed in an ESC survey of financial market participants and indicated that, at that time, an average of survey respondents' views on the historical market risk premium was 5.87 per cent and an average of future expectations of the market risk premium of about 1 per cent less.[242]

643. The Authority also notes that more recent forward-looking analyses of the MRP and surveys of market practitioners' expectations of the future MRP support the assumption of an MRP of 6 per cent or less.[243]

644. Ex ante estimates of the market risk premium have been made for Australian equity markets using the dividend-growth-model methodology. Estimates made are also

[239] Allen Consulting Group (2005(b)).

[240] These factors are discussed in "The Allen Consulting Group (March 2004), Review of Studies Comparing International Regulatory Determinations, Report to the Australian Competition and Consumer Commission".

[241] Dimson, Elroy, Marsh, Paul and Mike Staunton (2000), "Risk and Return in the 20th and 21st Centuries," Business Strategy Review, Vol. 11, Issue 2.

[242] ESC, October 2002, Review of Gas Access Arrangements: Final Decision, pp332-356, citing Jardine Fleming Capital Partners Limited, (September, 2001) The Equity Risk Premium – An Australian Perspective, Trinity Best Practice Committee.

[243] Allen Consulting Group (2005(b)).

below estimates of historically realised market risk premiums, with values ranging between 4.5 per cent and 5.9 per cent, with an average of 5.4 per cent.[244]

645. Taking this information into account and the positions put by Western Power in its access arrangement information, the Authority is of the view that the market risk premium is within the range of 5 and 6 per cent.

Capital structure

646. Capital structure refers to the relative levels of debt and equity in the financing of a business's assets. The proportion of debt to total asset value is referred to as a business's level of "gearing". The capital structure assumed for the purposes of determining the WACC affects the value of the WACC through the relative weightings given to the costs of debt and equity, the value of the equity beta (which is levered to reflect the assumed capital structure) and the value of the debt margin over the risk free rate (which is affected by assumptions of the credit rating of the business, of which gearing is an important determinant).

647. Western Power has proposed an assumption of capital structure of 60 per cent debt.

648. In its WACC Determination, the Authority indicated a view that an appropriate assumption for capital structure is 60 per cent debt. This is a value consistent with currently observed or interpolated levels of gearing for gas and electricity distribution businesses and regulatory precedent in Australia.[245] The Authority accordingly maintains the view that a capital structure of 60 per cent debt is appropriate.

Debt Risk Margin

649. There are three general options for estimating the cost of debt:

- a weighted average of the existing cost of debt of the regulated business;
- the marginal rate at which a comparable company can raise debt finance; and
- a margin over and above the risk free rate for the regulated business or a comparable entity.

650. Regulators in Australia have conventionally presented the cost of debt as a margin over the risk free rate, and have estimated a benchmark margin on the basis of the weighted average cost of debt for a typical debt portfolio. Regulators have also tended recently to consider the debt margin in terms of two components: an interest rate premium over the risk free rate (D_P) and an allowance for transaction costs incurred in arranging the debt facilities (D_{isc}) such that:

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[244] Davis, K., 18 March 1998. The Weighted Average Cost of Capital for the Gas Industry, Report Prepared for: Australian Competition and Consumer Commission and Office of the Regulator General. Lally, M., June 2002, The Cost of Capital Under Dividend Imputation, Prepared for the Australian Competition and Consumer Commission. SFG Consulting, September 2003, Issues in Cost of Capital Estimation. All cited in The Allen Consulting Group (March 2004), Review of Studies Comparing International Regulatory Determinations, Report to the Australian Competition and Consumer Commission.

[245] Allen Consulting Group (2005(b)), pages 21-24.

Equation 14

$$D_{RM} = D_P + D_{isc}$$

where

D_{RM} = debt risk margin.

651. In its access arrangement information, Western Power cites debt risk premiums for BBB and BBB+ rated debt as indicated by the Commonwealth Bank of Australia's Spectrum Service (**CBA Spectrum**). Western Power applies these values as the base of a reasonable range for the debt margin and adds 27 basis points to define the upper limit of the reasonable range, reflecting uncertainty with the accuracy of CBA Spectrum estimates. Western Power also suggests an allowance of between 25 and 35 basis points be added to the debt premium to account for the expanded credit spreads that may be incurred as a result of a reduced capacity to borrow in the index-linked bond market, based on advice from Westpac regarding supply/demand conditions in the relevant debt markets, and an allowance of 12.5 basis points for debt issuance costs.

652. In total, Western Power has proposed a debt risk margin of between 1.49 per cent and 1.68 per cent in its access arrangement information. Taking into account Western Power's proposed risk-free rate of 2.69 per cent, this would result in a real pre-tax cost of debt within the range of 4.18 per cent and 4.37 per cent. However, the rate of return parameters Western Power has applied in its revenue modelling determines a real pre-tax cost of debt of 4.11 per cent

653. In its WACC Determination the Authority indicated a view that a value of 12.5 basis points may be appropriate as an allowance for debt issuance costs, but the Authority did not indicate a view on the value of the debt risk premium. The Authority also indicated that calculation of a debt risk premium should be estimated from observed yields and estimates of corporate bonds, requiring characterisation of the regulated business in terms of credit rating, and then selection of observations on yields for corporate entities that are comparable in terms of activities and credit rating.

654. Western Power has proposed that a credit rating of BBB or BBB+ be assumed for the purposes of determining a debt risk premium.

655. Credit ratings for energy network companies can be observed from ratings assigned by agencies such as Standard & Poors and indicate typical ratings for Australian network businesses of between BBB and AA+.[246]The Authority notes, however, that there are two important factors that should be considered in considering published ratings in the context of an assumed credit rating for a regulated network activity:

- Actual credit ratings relate to the full scope of activities undertaken by the rated business, while credit ratings assumed for regulatory purposes relate solely to the regulated activities. If the business undertakes non-regulated activities that are higher risk than the regulated assets, the ratings of the rated entity in the market can be expected to be lower than should appropriately be assumed by the regulator.

[246] Allen Consulting Group (2005(b)), page 28.

- For regulatory purposes, the relevant rating assumption is the rating that would apply if the business had a benchmark capital structure: in this case a level of debt equal to 60 per cent of regulatory asset value. Other things equal, if the business's actual gearing is higher (say 80 per cent of the market value) than the regulatory gearing level (60 per cent of the regulatory asset value), then the business's actual credit rating would be expected to be lower than should appropriately be assumed by the regulator.

656. Taking these factors into account, the Authority considers that the appropriate, but cautious, rating assumption for Western Power is BBB+. This is consistent with assumptions made for electricity distribution activities in recent determinations by other Australian regulators.[247]

657. In determining a value of the debt risk premium consistent with a benchmark credit-rating assumption, Western Power has referred to indicators from CBA Spectrum and made a correction for suspected systematic errors in these indicators.

658. The Authority concurs with the view put forward by Western Power that the CBA Spectrum indicator may systematically underestimate debt margins for 10 year BBB+ rated bonds. This underestimation was noted by the Authority in its Final Decision on the Proposed Revisions to the access arrangement for the Mid-West and South-West Gas Distribution Systems.[248] The Authority has taking this into account in considering CBA Spectrum data for the purposes of determining a debt margin for Western Power, and the Authority has also taken into account other data sources as follows.[249]

- CBA Spectrum predicted yields recent research and other indicators suggest that the CBA Spectrum predicted yields for 10 year BBB+ rated bonds contain a downward bias and an underestimation in the order of 20 to 25 basis points. Applying this correction to average predicted yields over the 20 days to 30 September 2005 implies a debt margin of 122 to 126 basis points.
- Bloomberg predicted yields the yields predicted by Bloomberg for 8 year and 9 year BBB+ rated debt are 113.0 and 123.3 basis points, respectively. If a linear interpolation is taken to estimate the yield for 10 year debt, an estimate of 134 basis points would be obtained. However, it is noted that this is more likely than not to overstate the yield (as the yield curve is unlikely to be linear).
- Individual relevant debt issues Snowy Hydro (BBB+, 7.5 years) was trading at 119 basis points and Santos (BBB+, 10 year) was trading at 122 basis points (note that this included only four observations to 30 September 2005).

659. Taking this information into account, the Authority considers that a reasonable range for the determination of the debt premium (D_P) is 110 – 130 basis points.

660. The Authority notes that its assessment of the upper range for the debt premium is above the debt premium upper limit of 120 basis points underpinning KPMG's

[247] Allen Consulting Group (2005(b)), page 29.

[248] Economic Regulation Authority (2005b) Final Decision on the Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems, 12 July 2005.

[249] Allen Consulting Group (2005(b)), pages 32-38.

estimation of a debt margin.[250] However the Authority considers that its assessment is commensurate with prevailing conditions in the market for funds and the risk involved in delivering the Reference Services.

661. The Authority considers that Western Power's proposal for an "other allowance" of an additional 25 to 35 basis points as an "allowance for expansion of credit spreads due to reduced capacity to borrow in the index-linked bond market" is not appropriate. The proposed allowance is neither:

- reflective of Western Power's actual debt management arrangements or practices; nor
- consistent with the benchmarking principles underpinning the derivation of the debt premium in accordance with the Authority's WACC Determination.

Accordingly no allowance is provided for this claim in the derivation of the debt risk margin.

662. Western Power has included an allowance of 12.5 basis points for debt issuance costs (D_{isc}) in its debt risk margin. The Authority accepts the assumption is appropriate.

663. The Authority therefore considers that a reasonable range for the determination of the debt risk margin is 122.5 to 142.5 basis points. This range represents the sum of the limits for the debt premium (D_P) and debt issuance costs (D_{isc}). This range is less than the range of 149 to 168 basis points assumed by Western Power in its access arrangement information (attributable to the non-allowance of the claim for "allowance for expansion of credit spreads due to reduced capacity to borrow in the index-linked bond market"), but significantly more than the 80 basis points assumed in the rate of return used by Western Power in its revenue modelling.

Taxation rate

664. Western Power has assumed a taxation rate equal to the current corporate taxation rate of 30 per cent. This is consistent with the assumption indicated as appropriate by the Authority's in its WACC Determination. Since there is no indication that this rate will change in the near future, maintains the view that this is an appropriate assumption.

The value of dividend imputation

665. Under the system of dividend imputation, Australian shareholders are able to benefit from the fact that they receive a credit for the tax paid at the company level, and are able to offset this against taxes incurred elsewhere. Since 1 July 2000, a cash rebate has been available to any resident Australian shareholder where the credits would otherwise not be fully utilised (e.g. where the franking credit exceeded the recipient's taxation liability).

666. Franking credits, or imputation credits, are an allowance under the Australian taxation system that permit taxation liabilities of shareholders to be offset by the value of company tax already paid on profits from which the dividend payments are

[250] Access arrangement information, appendix 4, page 50, table 11. KPMG proposes a 'credit risk margin over the risk free rate' (debt premium) of 0.98% to 1.07% plus an allowance for understatement of CBA spectrum of 0.13%.

made. The approach for reflecting the value of franking credits that has emerged as standard practice is to use a MRP that assumes that Australia has a classical tax system (i.e. no franking credits), then to adjust the WACC or cash-flows directly to reflect the non-cash benefits associated with franking credits. The mechanism used to achieve this – the gamma ("γ") term in the Officer WACC formula – can be interpreted as the value of each franking credit that is created by the firm. The gamma value represents the value of franking credits taking into account the value of franking credits in the hands of shareholders and the proportion of franking credits distributed to shareholders. A low gamma implies that shareholders do not obtain much relief from corporate taxation through imputation and therefore require a higher pre-tax WACC to earn the same effective return on investment, and vice versa.

667. Western Power has proposed a range of gamma values of between 0 per cent and 50 per cent for the purposes of calculating WACC, on the basis of information provided at Appendix 4 to the access arrangement information.

668. The ACG noted that in Australia, regulators have generally adopted a gamma of 50 per cent, and that the ACCC and ESC Victoria have both argued that this represents a minimum value given that most of the empirical research supports values in excess of 50 per cent.[251]

669. In Australia, regulators have to date generally adopted a γ value of 50 per cent, based on the 1999 study by Hathaway and Officer, which estimates γ at close to 0.50.[252] There have, however, been several recent studies with different estimates.

- A more recent study by Hathaway and Officer estimates γ at between 0.28 and 0.36.[253]
- Cannavan, Finn and Gray examined a large number of trades in large high yielding companies, with individual share futures and low exercise price options.[254] They concluded that in the period prior to the introduction of the 45-day rule that eliminated the benefits of imputation credit tax arbitrage by foreign resident shareholders (i.e. prior to 1 July 1997), franking credits were valued at around 50 per cent of their face value. However, after the introduction of the 45-day rule, they concluded that the evidence showed a zero valuation of imputation credits. This was presented as evidence that the marginal investors in these large companies were foreign investors that could not utilise imputation credits.
- The Allen Consulting Group has estimated values of γ under taxation arrangements applying since 1 July 2000, indicating that γ values of about 75 per cent may be expected for utility companies.[255]

[251] Allen Consulting Group (2005a), page 45.

[252] Hathaway, N. and R.R. Officer (1999), *The Value of Imputation Tax Credits*, Unpublished Manuscript, Graduate School of Management, University of Melbourne.

[253] Hathaway, Neville and Officer, Bob (2004), The Value of Imputation Tax Credits: Update 2004, Capital Research Pty Ltd, p. 8.

[254] Cannavan, D., Finn, F. and Gray, S. (2004) 'The value of dividend imputation tax credits in Australia', Journal of Financial Economics, Vol. 73, pages 167-197.

[255] Allen Consulting Group (2005(b)), pages 43-45.

670. In the absence of additional definitive information and taking all of the abovementioned studies into account, the Authority considers that a reasonable range for the determination of gamma ("γ") is 0.3 to 0.6.

Determination of the WACC

671. The Authority has determined reasonable parameter values appropriate to the assessment of Western Power's proposed WACC. The Authority has summarised its view regarding the reasonable upper and lower bounds for the relevant parameters commensurate with the prevailing conditions in the market for funds and the risk involved in Table 41.

672. In determining the reasonable range for the relevant parameter estimates appropriate to Western Power the Authority has had regard to, as appropriate, relevant historical data, forward looking surveys, market and industry specific considerations and the applicable regulatory framework.

Table 41 Reasonable parameter values and ranges for estimation of the weighted average cost of capital for Western Power

Parameter	Value / Range
Nominal risk free rate*	5.28%*
Real risk free rate*	2.26%*
Inflation forecast*	2.95%*
Equity beta	0.8 – 1.0
Market risk premium	5% – 6%
Capital structure (Debt to total value)	60%
Capital structure (Equity to total value)	40%
Debt risk margin*	1.225% - 1.425% (includes debt establishment costs of 0.125% as proposed by Western Power)
Value of imputation credits (gamma factor)	0.3 – 0.6

* These figures are determined as at 28 February 2006.

673. The ranges in the estimated WACC values are in Table 42.

Table 42 Estimated WACC values derived from reasonable ranges in parameter values

Estimated WACC (per cent)	Nominal	Real
Post-Tax	5.68 – 6.81	2.65 – 3.75
Pre-tax	8.12 – 9.73	5.02 – 6.59

674. The Authority considers that the range of values that different minds acting reasonably could attribute to the cost of equity and WACC is narrower than the ranges that the extremes of ranges in CAPM parameters would suggest. An approach by a service provider to determine the WACC that adopted the highest value within the reasonable range for each of the relevant CAPM parameters would not, in the Authority's view, result in a value for the WACC that different minds, acting reasonably, would attribute to the WACC. Also, such an approach would be inconsistent with the nature of regulatory oversight because the incentive throughout the process of consideration of a WACC would be for the service provider to contend for those values for each of the underlying parameters that would produce the highest WACC. The process would be reduced to a consideration of what would be the highest possible WACC rather than determining a best estimate of the WACC on a reasonable basis.

675. Similarly it would not be reasonable for users to suggest a determination based on, or implying, a WACC at the lower extreme of the range.

676. Even allowing for the uncertainties associated with forming a judgement as to the range of values that different minds acting reasonably might attribute to the WACC, the value proposed by Western Power for the determination of the reference tariff set out in its access arrangement (7.30 per cent pre-tax real) lies outside of the range of values that may be derived by the application of the extremes of values for each of the parameters. Accordingly, the Authority is of the view that the WACC proposed by Western Power does not meet the requirements of the Access Code as it is outside of the range in values of the WACC that may be derived by the application of the extremes of values for each of the parameters of the CAPM.

677. The Authority has given consideration to defining a reasonable range of estimates of the WACC that would comply with the Access Code, which would be narrower than the range that may be derived by the application of the extremes of values for each of the parameters of the CAPM. However, while the Authority recognises that no reasonable person would adopt the extremes of this range, the Authority is of the view that there is no apparent rigorous statistical or other methodology for determining precisely at which point values close to the extreme values of the range do not reflect a reasonable view of the current market for funds.

678. As a result, the Authority is left determining subjective limits marked out by the standard of reasonableness and the extent to which different minds might reach different results. It is possible that there may be factors that indicate that the results might be skewed towards one end of the range or the other. However, the Authority has been unable to identify any such factors in this case.

679. The Authority is of the view that the range of values that would comply with the Access Code should not include the values that lie within the lower 10 per cent or upper 10 per cent of the range that may be derived by the application of the extremes of values for each of the parameters of the CAPM. The range of values that the Authority considers would comply with the Access Code is therefore 5.18 per cent to 6.43 per cent, pre-tax real as shown in Table 43.

Table 43 Authority's assessment of reasonable WACC range

Estimated WACC (per cent)	Nominal	Real
Post-Tax	5.80 – 6.70	2.76 – 3.64
Pre-tax	8.28 – 9.57	5.18 – 6.43

680. Having identified the upper and lower bounds of the reasonable ranges of values for Western Power's WACC, the Authority has assessed Western Power's proposed pre tax real WACC of 7.30 per cent. Western Power's proposed WACC falls outside the Authority's assessment of the reasonable range, noting that timing differences in the determination of the risk free rates contribute to the difference.[256]

681. Taking into account all of the available evidence, the Authority's WACC Determination and the analysis described above, the Authority considers that a point estimate of the pre-tax real WACC that meets the requirements of section 6.64 of the Access Code and the Code objective is 6.0 per cent.

Required Amendment 52

Western Power to amend its proposed access arrangement to reflect a pre tax real weighted average cost of capital of 6.0 per cent.

Efficiency and Innovation Benchmarks

Access Code Requirements

682. Section 5.1 of the Access Code states that an access arrangement must include efficiency and innovation benchmarks if required under section 5.25 of the Access Code. Section 5.25 of the Access Code states that an access arrangement which contains a gain sharing mechanism must, and an access arrangement which does not contain a gain sharing mechanism may, contain efficiency and innovation benchmarks.

683. An access arrangement must contain a gain sharing mechanism unless the Authority determines that a gain sharing mechanism is not necessary to achieve the objective in section 6.4(a)(ii) of the Access Code.[257] The objective in section 6.4(a)(ii) is that the service provider is rewarded for efficiency gains and innovation beyond the efficiency and innovation benchmarks in a previous access arrangement period.

684. Section 5.26 of the Access Code sets out what efficiency and innovation benchmarks must address.

[256] The Authority's figures are determined as at 28 February 2006.

[257] Access Code, section 6.20.

Western Power's Proposal

685. Clause 5.8 of Western Power's access arrangement proposes that, under section 6.20 of the Access Code, a gain sharing mechanism will not apply during the forthcoming regulatory period. Consequently, Western Power proposes in clause 5.9 of the access arrangement not to include efficiency and innovation benchmarks.

686. In its access arrangement information Western Power noted that it does consider it would be appropriate to conduct a thorough assessment of the need for, and the design options for a gain sharing mechanism at the next access arrangement review and that it undertakes to establish, during the course of the first access arrangement period, data collection and performance monitoring processes to facilitate the development of appropriate efficiency and innovation benchmarks that would apply from the commencement of the second access arrangement period.[258]

Interested Party Submissions

687. Alinta submitted:[259]

> The Proposed Access Arrangement does not include any efficiency and innovation benchmarks. If Western Power is required to include a gain sharing mechanism in the Proposed Access Arrangement, Western Power will also be required to include efficiency and innovation benchmarks which are reasonable and provide an objective standard for assessing Western Power's efficiency and innovation during the access arrangement period.

Authority's Assessment

688. As noted in the Authority's assessment on gain sharing there is a lack of readily comparable and reliable empirical cost and performance data that has been collated and reported on a consistent basis against which efficiency and innovation benchmarks could confidently be derived for this first access arrangement period. At the same time the Authority acknowledges the requirements for an increased level of investment and a significant improvement in service standards across the SWIN.

689. Given the historical background and the network priorities for the initial access arrangement period the Authority has considered on what basis it could derive reasonable, objective and measurable efficiency and innovation benchmarks. In doing so the Authority has also had regard to the considerations and electricity decisions of Australian regulators in other states, as noted in the Authority's assessment on gain sharing above.

690. This draft decision details required amendments to the service standard benchmarks, service standard adjustment mechanism, investment adjustment mechanism, K factor price control and related reporting and disclosure obligations that will underpin service levels, targeted expenditure plans and overall network performance, constraints and improvements. With improved data collection and performance reporting obligations the Authority does not consider additional efficiency and innovation benchmarks are required in the first access arrangement period.

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[258] Access arrangement information, page 160.

[259] Alinta, page 51.

691. Importantly the required amendments in this draft decision will promote the transparency, reliability and comparability of data collected during the first access arrangement period to provide a robust basis from which to assess appropriate efficiency and innovation benchmarks for the subsequent access arrangement periods. The reporting obligations on Western Power during the initial access arrangement period will also promote transparency for all interested parties.

692. The Authority considers that Western Power's proposal at clause 5.9 of its proposed access arrangement that efficiency and innovation benchmarks, in accordance with section 5.25 of the Access Code, will not apply to the first access arrangement period is consistent with the requirements of the Access Code, noting this is contingent upon the required amendments noted elsewhere in this draft decision.

Pricing Methods

Access Code Requirements

693. Section 5.1(e) of the Access Code requires an access arrangement to include pricing methods under chapter 7.

694. Section 7.2 of the Access Code states that an access arrangement may contain any pricing methods, provided they collectively meet the objectives of sections 7.3 to 7.7 and otherwise comply with chapter 7 of the Access Code.

695. Section 4.33 of the Access Code also confers on the Authority the ability to require changes to pricing methods. Should the Authority exercise its discretion to require amendments to pricing methods it must provide reasons for its determination and include sufficient guidance for the service provider to comply with the required amendments.

Discounts

696. Section 7.11 of the Access Code allows for discounts to be offered for services where these are necessary to aid economic efficiency. In particular, section 7.9 allows for discounts to be offered where they are "prudent" and section 7.10 allows for discounts where generators are connected to the distribution network. The Access Code allows for those discounts to be recovered from other users through reference tariffs.

Tariff equalisation contribution

697. The Authority considers the effect of the Access Code amendment in relation to the tariff equalisation fund in the Price Control section of this draft decision.

Western Power's Proposal

698. Western Power's proposed pricing methodology is articulated through its access arrangement (clause 9 and Appendix 6) and access arrangement information (parts B and C and Appendix 7).

699. Part D of the access arrangement information outlines the objectives of the proposed pricing method. Western Power considers that its proposed pricing

method meets the objectives of the Access Code for various reasons outlined in section 5.5 of part D of its access arrangement information and summarised below.

Tariff equalisation contribution

700. Western Power provisionally allowed for $60 million per year as a revenue component of its distribution network for its target revenue within the access arrangement period.

701. Western Power acknowledged that the amount was provisional, pending amendments to the Access Code and later decision by the Treasurer of the appropriate tariff equalisation contribution amount.

Discounts

702. The access arrangement provides a policy on prudent discounting (clauses 9.10 to 9.15) and a policy on discounts for distributed generation (clauses 9.16 to 9.19).

703. The prudent discount is proposed to reflect the higher of the cost of the "other option" (of delivering the required energy needs) or the incremental cost of providing the service.

704. The proposed discount for distributed generation is proposed to be the difference between the capital and non-capital costs of providing the service and those that would be incurred should the plant not connect to the network. This difference is proposed to then be annualised as agreed between the parties.

705. Western Power has proposed to submit all discount information to the Authority and then make the offer and acceptance of a discount conditional on the Authority's approval.

Interested Party Submissions

706. Newmont submitted:[260]

> There appears to be approx. 20% increase in network revenue forecast from 05/06 to 06/07. Newmont is concerned at this large and rapid increase, which appears to be driven principally by a high level of capital expenditure and increased operating costs. Whilst acknowledging that additional capital expenditure may be required for 'catch-up' in some parts of the network, Newmont questions whether this level of expenditure is required, but has insufficient information to comment further.
>
> The high level of revenue increase does not seem matched by individual transmission node connection prices. Newmont welcomes this, and can only assume that load growth is absorbing much of the forecast revenue increase, and cautions that the change of regime from the Triennial Review process of the former Transmission & Distribution Regulations should not form an excuse for a 'price shock' to Users.

707. WASEA's submission encouraged the Authority to consider whether the proposed discounts have the "potential to send strong price signals for the development of renewable energy power stations in end of grid or weak grid situations."[261]

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[260] Newmont, page 5.

[261] WASEA, page 7.

Authority's Assessment

708. The Authority is required to assess Western Power's proposed pricing methods against the requirements of chapter 7 of the Access Code. In doing so, the Authority has also had regard to regulatory practice across Australia.

709. It is noted that generally other regulators have expressed a tendency to assess tariffs against agreed pricing principles, rather than attempt to use pricing principles as a quantifiable measure. In particular, the AER has chosen to set required revenue only, letting the service provider "calculate the resulting network prices in accordance with chapter 6, part C of the [National Electricity Rules]."[262]

710. Similarly, the Authority has determined to regulate Western Power via a revenue cap which requires the Authority to ensure that Western Power recovers an agreed amount of revenue from users through tariffs. While the Authority has confirmed that the proposed target revenue is equivalent to the proposed tariff revenue, the assessment of the proposed tariff structure against the requirements of chapter 7 of the Access Code requires closer examination of each of the individual tariffs. The Authority has also had no assurance from Western Power of the relationship between the reference services and the non-reference services that are provided within each tariff. It has assumed, for this draft decision and until Western Power provides more information on the issue, that the reference tariffs do not contain non-reference services.

Section 7.3 of the Access Code

711. The Authority must ensure that the objectives outlined in section 7.3 of the Access Code are achieved through Western Power's proposed pricing methods. These objectives are:

- That reference tariffs recover the forward looking efficient costs of providing the reference services; and
- That the reference tariff applying to a user:
  - At the lower bound, is equal to, or exceeds, the incremental cost of service provision; and
  - At the upper bound, is equal to, or less than, the stand-alone cost of service provision.

712. The Authority has formed a view on the inputs into the calculation of target revenue from all tariffs, being forecast capital and revised operating expenditure as well as the accepted return on and of capital. The Authority considered those costs would be incurred by a prudent service provider acting in accordance with good electricity industry practice to efficiently minimise costs.

713. The Authority does not have sufficient information on which to consider whether the revenue received from each tariff recovers the forward looking efficient costs of providing the reference services offered under each tariff. Specifically, the Authority remains concerned about possible cross subsidisation between each tariff.

[262] AER 'Victoria Transmission Network Revenue Caps 2003-2008' 11 December 2005 page 88.

714. The determination of revenue pools is discussed by Western Power in Appendix 6 to its access arrangement information, where the calculation for both transmission and distribution networks is as follows.

Equation 15

$$RP_{Below\ 1000} = RP_{Total} - RP_{Over\ 7000} - RP_{1000\ to\ 7000}$$

where

$RP_{Below\ 1000}$	=	revenue to be recovered from customers with demands below 1,000 KVA
RP_{Total}	=	total revenue to be recovered from network customers
$RP_{Over\ 7000}$	=	revenue to be recovered from customers with demands above 7,000 KVA
$RP_{1000\ to\ 7000}$	=	revenue to be recovered from customers with demands between 1,000 KVA and 7,000 KVA

715. The Authority has reviewed the approach taken by Western Power. There is insufficient information to reconcile the relationship between the revenue pools, the reference services and the reference tariffs. The Authority can therefore not assess the allocation of costs into each reference tariff.

716. In order for the Authority to endorse the tariffs under section 7.3(a), Western Power will therefore need to demonstrate to the Authority that the allocation of costs between reference tariffs has been undertaken in accordance with the Access Code requirements.

717. The Authority recognises the role that prices play in determining investment in and use of the distribution network by users. To this end, section 7.3(b) of the Access Code requires that prices should at least recover the incremental cost of providing reference services but are no higher than the stand-alone cost of supplying a customer.

718. The incremental cost of supply can be thought of as the costs avoided by a service provider of not supplying an additional customer, such as the cost of providing a meter, direct connection costs and meter reading costs.

719. The stand-alone cost represents the total cost to the service provider of supplying a particular customer, as if all other customers did not exist (unlike the incremental cost). This includes all assets involved in transporting electricity to that customer.

720. In a regulated market, tariffs which are below incremental cost would imply that a cross subsidy is being provided to one group of customers by another. As a result, the revenue recovered from the customers providing the cross subsidy is higher than it otherwise should be. Tariffs which are above stand-alone cost would imply that a customer group is subsidising the prices paid by other customers.

721. The regulatory regime, via section 7.3(b) of the Access Code, provides a direct incentive to Western Power to eliminate distortions.

722. The Authority notes the QCA's Final Determination stated the complexities of determining acceptable levels for tariffs:[263]

> A common feature across jurisdictional regulators is that, in instituting alternative methodologies to those outlined in Part E of the Code, the pricing principles currently being applied require:
>
> - that prices should lie on or between the upper and lower bounds of incremental cost and stand-alone cost for economically efficient prices; and
> - that prices should signal efficient economic costs of service provision by:
>
> having regard to the level of available network capacity; and
>
> signalling the impact of additional usage on future investment costs.
>
> These principles are high level in that they do not prescribe the prices that DNSPs should charge for customers' use of the distribution network service. They provide signposts for pricing, rather than providing simple rules. As a result, pricing decisions will involve a significant element of judgment and subjectivity. The Authority recognises that, to be effective, its regulatory approach must allow for these practical limitations.
>
> The pricing of network services is a practical exercise that takes place in an environment of limited cost information, technical complexity and uncertainty. Prices have a broader function than signalling economic costs. They also recover the revenue necessary for financial viability and allocate sunk network costs between customers. Price changes may also impose adjustment costs on customers that are not taken into account when considering pricing efficiency.

723. The Authority concurs with the QCA's interpretation that the higher and upper levels of stand-alone and incremental costs only provide signposts for pricing. They do not offer a quantitative benchmark against which prices can be measured.

724. Against this, Western Power believes it has met section 7.3(b) of the Access Code because its reference tariffs inherently fall between the extremely wide range between estimated incremental and stand-alone costs, considering the nature of electricity services. The Authority does not accept this view because:

- while the levels of the reference tariffs may fall between these two ranges, the level of cross subsidisation between tariffs, and between users, may be significant. A question is whether the number and structure of reference tariffs offered by Western Power is leading to cross subsidisation outcomes that are appropriate for users; and
- without a review of whether the costs for each reference tariff have been based on the forward looking efficient costs of providing reference services, the stand alone and incremental cost test is meaningless.

725. To this end, the Authority requires Western Power to provide a clear explanation of how it has allocated its AARR to reference tariffs, and further to demonstrate that customer classes within each tariff lie between stand alone and incremental cost. As the access arrangement is currently drafted, the Authority is unable to satisfy itself that the pricing methods adopted by Western Power meet the requirements of section 7.3(b) of the Access Code.

[263] QCA (2005), page 182.

726. The Authority notes that it is not unusual to require service providers to provide cost of supply models to assess cost allocations for each tariff. Indeed, these are often reflected in pricing principles statements submitted for approval by the Regulator. Western Power alludes to a similar demonstration of prices being subsidy free by stating that "the incremental and stand-alone costs are graphically plotted for every CMD customer within each zone and the price settings are adjusted so that the customer charges fit between the limits".[264] These graphs have not been submitted as part of the proposed access arrangement or access arrangement information.

727. Further, as required in the Metering section of this draft decision, the Authority requires Western Power to clearly articulate the costs associated with the provision, installation and reading of meters for each reference service. Specifically, the Authority requires Western Power to demonstrate that the metering costs are recovered from users in a transparent and appropriate manner as required under the Access Code.

Section 7.4 of the Access Code

728. Section 7.4(a) of the Access Code states that an access arrangement must have the objective that charges paid by different users differ only to the extent necessary to reflect differences in the average cost of service provision.

729. The Access Code provides guidance on factors which may result in the charges paid by different users of a reference service differing from each other including the quantities of reference services to be supplied, a user's time pattern of network usage, the technical characteristics or requirements of the facilities and equipment at the relevant connection point, the nature of the plant or equipment required to provide the reference service, or the periods for which the reference service is to be supplied or a user's location. Which of these best meets the cost drivers of individual users is a decision for the service provider to make.

730. In order for reference tariffs to meet section 7.4(a) of the Access Code, tariffs need to be structured on a basis which allows differences in the average costs between users to drive the charges. This in turn requires the basis of tariffs, whether KWh, Km, or KVA, to be reflective of average costs incurred by a service provider.

731. The reference tariffs proposed by Western Power contain a number of different methods of charging. These range from fixed charges and KWh charges in the case of RT1 and RT2, fixed and peak/off peak KWh charges for RT3 and RT4, demand and distance based charges for RT5 and RT6 and more sophisticated charging methodologies for RT7 and RT8.

732. The Authority notes that it is necessary for it to be assured that the reference tariffs are structured with the objective of meeting section 7.4(a) of the Access Code. No concerns were raised by interested parties in relation to section 7.4(a) of the Access Code. The Authority considers that the charges paid by different users of a reference service differ only to the extent provided by section 7.4(a) of the Access Code.

733. Section 7.4(b) of the Access Code requires that the structure of tariffs should, so far as it is consistent with the Code objective, accommodate the reasonable requirements of users collectively.

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[264] Access arrangement information, Appendix 6, page 50.

734. Western Power contends that the structure of its proposed tariffs are "accepted by the electricity industry as being appropriate for the provision of network access".[265] The Authority raised this issue specifically in its issues paper and invited submissions in order to validate the claim. There were no concerns raised from that process. The Authority has no reason to consider that the structure of the reference tariffs do not meet the requirements of section 7.4(b) of the Access Code.

735. Section 7.4(c) and (d) of the Access Code requires tariffs to enable users to predict the likely annual changes throughout the access arrangement period and avoid price shocks.

736. Western Power has proposed two methods of avoiding tariff shocks. The first is a smoothing factor which will eliminate movements from year to year as a consequence of large differences in operational and maintenance and capital expenditure. The second method is through the proposed side constraints for each tariff as follows.[266]

> In order to avoid price shocks to particular tariff customers, annual changes to tariff prices for the second and third pricing years of the Access Arrangement period will be subject to the following side constraints:
>
> - Increase or decrease in any individual tariff being limited to CPI + 2% in any year;
> - Increase or decrease in any individual tariff components (published figures) being limited to CPI + 2% in any year.

737. Furthermore, as the Authority has required the exclusion of accumulated capital contributions from the revenue requirement in the first year, there will be no step increase in tariffs in the first regulatory year.

738. In consideration of the smoothing factors, the exclusion of accumulated capital contributions and the side constraints on movements throughout the period, the Authority considers that there is sufficient certainty afforded to users during the access arrangement period. The Authority is therefore satisfied that the structure of reference tariffs avoids price shocks, and is therefore consistent with sections 7.4(c) and (d) of the Access Code and the Code objective.

Section 7.6 of the Access Code

739. Section 7.6 of the Access Code requires a service provider to recover the incremental cost of service provision by tariff components that vary with usage of demand, with those amounts in excess of incremental costs being fixed without demand or usage variations.

740. Western Power's proposed tariff schedule provides users with the tariff components that comprise the reference tariffs.

741. Western Power has contended that the requirements of section 7.6 of the Access Code have been met, with prices reflecting fixed and variable amounts being calculated for each tariff. Specifically, Western Power considers all transmission price components to be variable as they are determined to represent the incremental cost of service provision, whereas some of the fixed amounts relate to

[265] Access arrangement information, page 177.

[266] Access arrangement information, page 170.

"administration costs, costs to establish basic low capacity network and costs to service the low capacity network".[267]

742. Section 7.6(a) of the Access Code requires tariff components which are recovering amounts in excess of incremental cost to not vary with demand or usage. Expressed differently, this means that:

- the revenue earned from the variable components of a tariff should be equal to and no more than the total incremental costs of the reference services involved in supplying customers under that tariff; and therefore
- the remainder of revenue, that is the difference between total tariff revenue and incremental cost, should be equal to the revenue earned from the fixed components of a tariff.

743. In considering whether sections 7.6(a) and 7.6(b) of the Access Code have been met, the Authority is compelled to take a view on which tariff components are recovering stand-alone costs and which are recovering incremental cost, the values of each, and the incremental costs of supplying customers under each tariff.

744. The Authority does not have sufficient information on which to make this assessment. Western Power is therefore required to provide information to allow the Authority to make this assessment.

Section 7.7 of the Access Code

745. Section 7.7 of the Access Code requires the same tariffs to be applied to users who contract for less than 1 MVA regardless of geographical location.

746. Western Power's price list in Appendix 5 to its proposed access arrangement demonstrates that users with demand below 1 MVA have uniform tariffs, as do the calculations provided under Appendix 6 to the access arrangement information.

747. Furthermore, the classification of user groups by demand as represented in clause 9.7(c) of the access proposed arrangement is consistent with the requirements of section 7.7 of the Access Code, where users consuming below 1 MVA are treated comparatively in relation to tariffs.

748. The Authority is satisfied that the requirements of section 7.7 of the Access Code are met, with the calculation of transmission and distribution prices to have uniform application to those users consuming less than 1 MVA.[268]

Other jurisdictions

749. When considering the requirements under chapter 7 of the Access Code, the Authority has had regard to regulatory practice in other jurisdictions. The Authority notes that other regulators accept the role of the service provider as setting tariffs in accordance with agreed pricing principles.

750. In its final determination, the QCA required the service providers to "provide a Pricing Submission Document annually which demonstrates that the proposed prices are consistent with its Pricing Principles Statement".[269]

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[267] Access arrangement information, page 178.

[268] Access arrangement information, Appendix 6, page 39.

751. Further, the QCA noted that "pricing decisions will involve a significant element of judgment and subjectivity",[270] reflecting the requirement to allow service providers to determine prices based on appropriate principles.

752. IPART recognised that as service providers have a better appreciation of their expenses and consumers than the regulator, they should develop their own prices. Therefore, the role IPART assumed was to ensure that service providers use "reasonable endeavours to comply with the Pricing Principles"[271] set out in the determination.

753. The Independent Competition and Regulatory Commission (**ICRC**) determined to allow the service provider to set prices in accordance with pricing principles which the regulator would then measure compliance against, before approving proposed prices.

754. In its 2005 determination, the AER adopted the approach of determining that maximum allowable revenue while leaving the service provider to "calculate the resulting network prices in accordance with Chapter 6, part C of the [National Electricity Rules]".[272]

755. Finally, ESC issued pricing principles in its final determination which the service provider must aim to ensure tariffs satisfy.[273]

756. The Authority also notes that the pricing principles stated by Western Power in its access arrangement information and Appendix 6 to its access arrangement information differ, providing the need for Western Power to revisit its pricing methods.

Discounts

757. Each of the proposed discounting policies provides for a process in relation to individual proposed discounts, thus is consistent with section 7.11 of the Access Code. However, in each policy (clauses 9.15 and 9.19 of Western Power's proposed access arrangement) the provision of a discount is conditional upon the Authority first approving the proposed discount.

758. The Authority notes that clause 3.8 of the proposed access arrangement provides for Western Power to submit a price list annually. Under section 8.2 of the Access Code if an access arrangement requires the service provider to submit price lists to the Authority for approval the Authority must satisfy itself before approving the proposed price list that it complies, among other things, with the pricing methods in the service provider's access arrangement. Western Power's proposed policies in relation to prudent discounts and distributed generation plan are a component of the pricing methods referred to in chapter 7 of the Access Code.

759. Under this framework, while the Authority must review the annual price list for compliance with the pricing methods in an access arrangement, including the discounting policies, the Authority does not have any role during the life of an access arrangement in approving individual discounts before they become

[269] QCA (2005), page 200.

[270] QCA (2005), page 182.

[271] IPART NSW Electricity Distribution Pricing 2004/05 to 2008/09 page 21.

[272] AER 'Victoria Transmission Network Revenue Caps 2003-2008' 11 December 2005 page 88.

[273] ESC final determination 2006-2010 page 465.

operative as proposed by Western Power in its access arrangement. For the Authority to become involved in the approval of individual discounts would involve the Authority in a function not consistent with its legislative powers and duties.

760. The Authority's role in this area may be summarised as follows:

- as part of the process of approval of the access arrangement, the Authority must ensure that the proposed discounting policies forming part of the pricing methods will ensure that the discounts which are offered by Western Power pursuant to the policy will be consistent with the criteria in sections 7.9 and 7.10 of the Access Code; and
- once the access arrangement is approved, the Authority must review annually whether the discounts proposed to be provided during the next pricing year and any consequential adjustments to reference tariffs in the price list for the next pricing year to recover such discounts, comply with the approved discounting policies.

761. The above highlights the need for the discounting policies in the access arrangement to be sufficiently detailed to enable the Authority to determine whether individual discounts comply with the relevant discounting policy, which is consistent with the requirements of section 7.11 of the Access Code.

762. The Authority considers that the detail relating to proposed discounts in the access arrangement is sufficient and is consistent with the Access Code requirements and the Code objective.

763. However, the Authority does not accept a requirement to provide its approval for individual discounts. The role of the Authority is to review the annual price list for compliance with the pricing methods in the access arrangement, including the discounting policies.

764. As such, the Authority requires Western Power to amend its proposed discounting method to remove the element that puts the onus on the Authority to approve individual discounts.

Tariff equalisation contribution

765. Western Power has proposed a provisional allowance of $60 million as the tariff equalisation contribution for each of the three years in the access arrangement period.

766. As the Authority is able to make a simple adjustment to target revenue prior to its final decision, the Authority accepts the forecast cost proposed by Western Power for the purposes of this draft decision.

767. This acceptance is subject to revision of the tariff equalisation contribution following the determination by the Western Australian Treasurer which is due to be provided prior to the Authority issuing its final decision.

Required Amendment 53

Western Power to demonstrate that the revised price lists and price list information meet the requirements under chapter 7 of the Access Code.

Required Amendment 54

Western Power to delete references in clauses 9.15 and 9.19 of the proposed access arrangement that require the Authority's approval of discounts.

Price Lists

Access Code Requirements

768. Section 5.1(f) of the Access Code requires an access arrangement to include a current price list under chapter 8. The Authority is obliged to assess and approve a price list for the first year of an access arrangement period.

769. Section 4.36 of the Access Code states:

> The Authority must, as a condition of approval of a proposed access arrangement, require a service provider to submit each price list under the access arrangement to the Authority under section 8.1 for approval, if:
>
> (a) the service provider requests such a condition; or
>
> (b) the Authority considers that the submission of price lists under the access arrangement to the Authority under section 8.1 for approval would improve the operation of the access arrangement.

770. A proposed price list must be accompanied by price list information, which is defined in section 1.3 of the Access Code.

771. Where the Authority is required to approve a price list, if a service provider's proposed price list complies with the price control and pricing methods in its access arrangement, then the Authority is obliged to approve and publish that price list and price list information.[274]

Western Power's Proposal

772. Western Power does not make any reference to price lists in the body of its proposed access arrangement.

773. Western Power has listed its prices for covered reference services in Appendix 5 of its proposed access arrangement. Western Power contended that existing tariffs:[275]

[274] Access Code, section 8.2.

[275] Access Arrangement information, page 17.

> … reflect the services that a significant proportion of the company's customers want, without 'bundling' services together in a manner that requires customers to acquire services that they do not want.

774. Western Power asserts that the Access Code does not appear to require it to submit price list information,[276] as it believes that the detail contained within its pricing methods should provide sufficient information relevant to its price list.

775. Western Power does not propose, pursuant to section 4.36(a) of the Access Code, to submit price lists to the Authority for annual approval.

776. Western Power has not provided a price list for excluded services.

777. Western Power has not provided a price list for non-reference services.

778. Western Power has not submitted a statement that explains the process of allocating the AARR to covered services (both reference and non-reference) and then to tariffs.

Interested Party Submissions

779. No public submissions were received.

Authority's Assessment

780. The Authority notes that methodological errors and irreconcilable differences exist between the access arrangement, Appendix 7 of the access arrangement and access arrangement information sections relating to price control (including intra regulatory period price adjustments). This has caused difficulty for the Authority in assessing the proposals.

781. The discussion in relation to reference services details a lack of specificity in relation to quality, content, eligibility and transparent linkages to entry/exit points.

782. The Authority notes the discretion conferred by section 4.36(b) of the Access Code in terms of requiring approval of a service provider's price list and has considered the likely benefits that an approval process could bring.

783. The Authority acknowledges Western Power's position that the Access Code does not "appear to require it to submit price list information". In the view of the Authority even if annual approval of price lists is not required under section 4.36, the Authority must still receive price list information at the same time that price lists are submitted to the Authority for publication under section 8.7 of the Access Code.

784. The Authority considers that there is no consolidated data in the proposed access arrangement that meets the definition of price list information and which demonstrates the derivation of, for example, proposed price lists, recovery of allowed revenue or the dependency on volumes.

785. In accordance with section 4.36(b) of the Access Code, the Authority has determined that submission of price lists to the Authority for approval would improve the operation of the access arrangement and is required under section 8.1 of the Access Code.

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[276] Access Arrangement information, page 170.

786. In relation to reference services the Authority notes that Western Power has not provided:

- a statement of how the AARR has been allocated to various covered services or tariffs which would enable the Authority to adequately consider the levels of the reference tariffs;
- adequate information in relation to how tariffs are applied to users; and
- adequate information in relation to what reference services are provided under the various reference tariffs and therefore what additional non-reference services are available.

787. Western Power's proposed price lists appear to be a recast of its existing tariff structure. In principle this approach could be acceptable. However, the proposed tariffs do not meet the Access Code requirements.

788. Additionally, the Authority is concerned that a lack of transparency in the price list may result in confusion as to how many of the components of tariffs are in practice applied such as:

- in relation to all tariffs where a transmission and distribution loss factor is shown, making clear that the loss factors are not included in the calculation of the reference tariff and are not additional charges;
- for RT5, RT6, RT7 and RT8, how the applicable km measures for distance based charges are established and how these charges are applied in practice; and
- for TRT2, the circumstances in which the total connection charge is levied, or the connection price is levied. The Authority understands that these charges are alternatives to each other, and that one includes control system charges and the other does not. This needs to be made clear for users. Following an additional information request by the Authority, Western Power provided further details regarding customer groupings and forecast demand for the various tariff categories.[277]

789. The Authority subsequently conducted its own analysis and modelling to validate the proposed tariffs and forecasts. Whilst the Authority is now in a position to reconcile Western Power's proposed price lists with target revenue, Western Power's price lists do not provide transparency into the standard uniform tariffs in the SWIN.

790. The Authority notes that Appendix 5 of the proposed access arrangement includes currently contracted prices at some exit points as proposed "reference tariffs", and asterisked columns instead of actual prices in some tariff schedules. Western Power has asserted prices have been removed at some connection points due to commercial in confidence issues. This rationale does not align with the objective of reference tariffs at exit/entry points, which are tariffs available to all users seeking entry/exit at that point.

791. The Authority has further determined in the section on Pricing Methods that Western Power's proposals are inconsistent with the Access Code requirements and the Code objective, in particular regarding transparency as to the cost

[277] Email from Western Power, 5 December 2005.

allocation methodology used to derive tariffs that are consistent with other policy requirements.

792. Western Power has included loss factors "for completeness" in Appendix 5 of its proposed access arrangement. The Authority understands that the IMO will promulgate loss factors annually in the wholesale electricity market. Accordingly it is unclear what purpose the loss factors Western Power has included in its tariff schedule are meant to serve.

793. Therefore, the Authority considers that Western Power's proposed price list does not meet the Code objective or the reasonable requirements of users. The Authority requires Western Power to revise its proposed price list in order to comply with the requirements of the Access Code. The Authority also requires Western Power to provide price list information as part of its access arrangement.

Required Amendment 55

Western Power to specify prices for all reference services within the price list.

Required Amendment 56

Western Power to resubmit its proposed price list and submit price list information consistent with the requirements of chapter 8 of the Access Code.

Required Amendment 57

Western Power to clarify the purpose, effect and period of application of the loss factors specified in its tariff schedule relative to the Independent Market Operator's role.

Supplementary matters

Access Code Requirements

794. Section 5.1(k) of the Access Code states that an access arrangement must include provisions dealing with supplementary matters. Section 5.27 of the Access Code defines supplementary matters as:

- balancing; and
- line losses; and
- metering; and
- ancillary services; and
- stand-by; and
- trading; and
- settlement; and
- any other matter in respect of which arrangements must exist between a user and a service provider to enable the efficient operation of the covered

network and to facilitate access to services, in accordance with the Code objective.

795. Section 5.28 of the Access Code states that an access arrangement must deal with a supplementary matter in a manner which:

(a) to the extent that the supplementary matter is dealt with in:

(i) an enactment under Part 9 of the Act; or

(ii) the 'market rules' as defined in section 121(1) of the Act,

applying to the covered network – is consistent with and facilitates the treatment of the supplementary matter in the enactment or market rules; and

(b) to the extent that the supplementary matter is dealt with:

(i) in a written law other than as contemplated under section 5.28(a); and

(ii) in a manner which is not inconsistent with the requirement under section 5.28(a) to the extent that it applies to the covered network,

is consistent with and facilitates the treatment of the supplementary matter in the written law; and

(c) otherwise – in accordance with the technical rules applying to the covered network and the Code objective.

796. The inclusion of supplementary matters in an access arrangement ensures that all matters that enable the efficient operation of the network are clearly addressed. This achieves clarity for both the user and the service provider in respect of access to the covered network. The assessment of each supplementary matter is dealt with below.

Balancing

Access Code Requirements

797. The Access Code requirements for balancing are contained in sections 5.27 and 5.28 of the Access Code. Section 5.28(a) of the Access Code states that to the extent that a supplementary matter is dealt with in the Market Rules, the proposed supplementary matter must be consistent with, and facilitate the treatment of, the supplementary matter in the Market Rules. Balancing is dealt with in the Market Rules.

Western Power's Proposal

798. Western Power submitted:[278]

> Balancing requirements under the Access Arrangement shall be in accordance with the Wholesale Electricity Market Rules, subject to section 10.8 of this Access Arrangement.

Interested Party Submissions

799. The Authority did not receive any submissions on this issue.

[278] Access arrangement, clause 10.1.

Authority's Assessment

800. Balancing is dealt with in the Market Rules and Western Power has adopted the requirements for balancing contained in the Market Rules. In the Authority's view, this is consistent with section 5.28 of the Access Code.

801. The Authority has assessed that clause 10.1 of Western Power's proposed access arrangement is consistent with the requirements of the Access Code.

Line Losses

Access Code Requirements

802. The Access Code requirements for line losses are contained in sections 5.27 and 5.28 of the Access Code. Section 5.28(a) of the Access Code states that to the extent that a supplementary matter is dealt with in the Market Rules, the proposed supplementary matter must be consistent with, and facilitate the treatment of, the supplementary matter in the Market Rules. Line Losses are dealt with in the Market Rules.

Western Power's Proposal

803. Western Power submitted:[279]

> Requirements for the treatment of line losses under the Access Arrangement shall be in accordance with the Wholesale Electricity Market Rules, subject to section 10.8 of this Access Arrangement.

Interested Party Submissions

804. The Authority did not receive any submissions on this issue.

Authority's Assessment

805. The Authority notes that line losses are dealt with in the Market Rules and Western Power has adopted the requirements for line losses contained in the Market Rules. In the Authority's view, this is consistent with section 5.28 of the Access Code.

806. The Authority has assessed that clause 10.2 of Western Power's proposed access arrangement is consistent with the requirements of the Access Code.

Metering

Access Code Requirements

807. The Access Code requirements for metering are contained in sections 5.27 and 5.28 of the Access Code. Section 5.28(b) of the Access Code states that to the extent that a supplementary matter is dealt with in a written law (other than as contemplated under section 5.28(a) of the Access Code), the proposed supplementary matter must be consistent with, and facilitate the treatment of, the supplementary matter in that written law. Metering is dealt with in the *Electricity Industry Metering Code 2005* (**Metering Code**).

[279] Access arrangement, clause 10.2.

Western Power's Proposal

808. Western Power submitted:[280]

> Metering requirements under the Access Arrangement shall be in accordance with the Electricity Industry Metering Code 2005, subject to section 10.8 of this Access Arrangement.

809. Western Power's proposed access arrangement Appendix 5 included metering charges in the proposed tariffs.

810. Western Power's proposed access arrangement Appendix 6 proposes metering related measures in addition to clause 10.3 of the access arrangement.

811. Western Power's proposed access arrangement Appendix 7 includes metering capex and opex expenditure in the determination of the annual revenue requirement.

812. Western Power's access arrangement information includes meters installed as at 1 July 2006, capital expenditure for new meters and operations and maintenance costs attributable to installation and reading of meters over the access arrangement period.

813. Western Power's revenue models reflected the inclusion of metering costs consistent with paragraphs 808, 810 and 811 above.

Interested Party Submissions

814. The Authority did not receive any submissions.

Authority's Assessment

815. The Authority notes the required contents of an access arrangement must include, amongst other things, one or more reference services, a standard access contract, and provisions dealing with supplementary matters which includes metering,[281] which is also dealt with in the *Electricity Industry Metering Code 2005* (**Metering Code**).

816. As noted previously in this draft decision, however, Western Power has not adequately detailed the relationship between its reference tariffs and the reference services provided to users under each reference tariff. This has implications for the treatment of the costs and revenues of metering services, which are referenced in several places in the access arrangement and tariff schedule.

817. The Authority notes that the Access Code defines a reference service as:

> … a covered service designated as a reference service in an access arrangement under section 5.1(a) [of the Access Code] for which there is a reference tariff, a standard access contract and service standard benchmarks.

[280] Access arrangement, clause 10.3.

[281] Access Code, section 5.1.

818. The relevant consideration for the Authority is therefore whether or not metering assets and charges should:

- be included in reference services, as provided for in Western Power's proposed access arrangement appendices, tariffs, revenue models and access arrangement information; or
- refer to another separate instrument, as indicated at clause 10.3 of Western Power's proposed access arrangement.

819. In the context of assessing Western Power's proposed access arrangement the Authority considers that metering assets are network assets[282] that are used only in order to provide covered services at a connection point.

820. Accordingly relevant metering costs should be reflected in reference tariffs. This is consistent with the methodology proposed by Western Power, as noted at paragraph 817 above, notwithstanding the proposal at clause 10.3 of Western Power's proposed access arrangement.

821. In its assessment the Authority has also had regard to Western Power's proposal at clause 10.3 of its access arrangement. Western Power's submission regarding metering is unclear. The proposed access arrangement clause 10.3 is assessed as not being compliant with the Code objective because, if approved, clause 10.3 would result in an access arrangement that could not provide users or applicants with the necessary covered services required to procure or transport electricity. A user would also still be required to refer to the Metering Code and its attendant model service level agreement to separately determine and contract for its metering type and costs.

822. Further, clause 10.3 of Western Power's proposed access arrangement states that the metering requirements shall be in accordance with the Metering Code. However section 13 of Appendix 6 of Western Power's proposed access arrangement provides two circumstances where Western Power proposes charges which appear to be other than in accordance with the Metering Code.

823. Western Power submitted:[283]

> Contestable customers moving off a gazetted Western Power Retail tariff to supply from another retailer are currently required to have electronic meters with half hourly load data recording capability for energy settlement purposes. If an existing meter does not comply with this requirement, then the cost of upgrading the meter, including remote communication equipment, will be charged to the retailer.

824. Clause 3.17 of the Metering Code states that a customer may not transfer to a new retailer unless the customer's meter complies with clause 3.16 of the Metering Code. Clause 4.6(1)(b) of the Customer Transfer Code 2004 provides that if the transfer of a contestable customer requires the installation of an interval meter, then Western Power will pay the costs of the meter, associated equipment and installation to the extent that such costs would be incurred by a network operator acting in good faith and in accordance with good electricity industry practice seeking to achieve the lowest sustainable costs of providing the metering capability.

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[282] Access Code, section 1.3.

[283] Access arrangement, Appendix 6, section 13.1.

825. Western Power's proposed charges are inconsistent with this clause as the Metering Code sets a price of $840.00 plus a provision for travel expenses whereas section 13.1 of Appendix 6 of the access arrangement provides for the full cost of upgrading the meter.

826. Western Power submitted:[284]

> Additional individual meter read charges will be applied where the estimated meter read costs exceed the amount allocated in the monthly account service fee.

827. The transitional charges for metering services contained in Table 8, Appendix 5 of the Metering Code provide that a charge may be levied for bi-monthly meter reading, monthly meter reading and off-cycle meter reading (among others).[285] Table 8, Appendix 5 contemplates a circumstance where the charge for such services is determined in the access arrangement (whether in the model access contract or the access arrangement).[286] However, the lack of specificity in Western Power's proposed access arrangement means users would be unable to determine what services are being offered for the various tariffs.

828. Additionally, if Western Power's clause 10.3 proposal was adopted the metering costs proposed by Western Power could not be included in the determination of the AARR as it would lead to an over (double) recovery of metering costs.

829. Other than for metering charges applicable to providing reference services in accordance with an approved access arrangement the provisions of the Metering Code continue to apply. In relation to additional charges, where metering is required as a non reference service, excluded service, or in addition to the metering services described in the reference services then it would be appropriate to refer to the Metering Code and/or the Metering Code's model service level agreement as appropriate.

830. In relation to meter upgrades the Authority notes that the access arrangement provisions of the capital contributions policy will also apply.

831. It is not clear what metering services are provided under reference tariffs and what are additional costs for customers. It is also not clear what metering services relate to covered services and what metering services relate to non-covered services. As submitted, clause 10.3 of Western Power's proposed access arrangement is inconsistent with its proposed treatment of metering costs when determining total revenue, composition of reference tariffs and Western Power's revenue models.

[284] Access arrangement, Appendix 6, section 13.2.

[285] These charges and services are replicated in Western Power's proposed model service level agreement submitted to the Authority under the Metering Code.

[286] Appendix 5, note 4 of the Metering Code.

Required Amendment 58

Western Power to confirm in its access arrangement the inclusion of the type, supply, installation and maintenance of meters applicable to reference services in accordance with the required amendments to Reference Services in this draft decision.

Required Amendment 59

Western Power to confirm in its access arrangement the meter reading type and frequency included in the reference services in accordance with the required amendments to the Reference Services and Standard Access Contract in this draft decision.

Required Amendment 60

Western Power to confirm in its access arrangement the treatment for meter upgrades in accordance with the required amendments to the Capital Contributions Policy in this draft decision.

Required Amendment 61

Western Power to confirm in its access arrangement the elements of metering charges in reference tariffs in accordance with the required amendments to Pricing Methods and Price Lists in this draft decision.

Ancillary Services

Access Code Requirements

832. The Access Code requirements for ancillary services are contained in sections 5.27 and 5.28 of the Access Code. Section 5.28(a) of the Access Code states that to the extent that a supplementary matter is dealt with in the Market Rules, the proposed supplementary matter must be consistent with, and facilitate the treatment of, the supplementary matter in the Market Rules. Ancillary services are dealt with in the Market Rules.

Western Power's Proposal

833. Western Power states:[287]

> Requirements for the treatment of ancillary services under the Access Arrangement shall be in accordance with the Wholesale Electricity Market Rules, subject to section 10.8 of this Access Arrangement.

Interested Party Submissions

834. The Authority did not receive any submissions.

[287] Access arrangement, clause 10.4.

Authority's Assessment

835. The Authority notes that ancillary services are dealt with in the Market Rules and that Western Power has adopted the requirements for ancillary services contained in the Market Rules. In the Authority's view, this is consistent with section 5.28 of the Access Code.

836. The Authority has assessed that clause 10.4 of Western Power's proposed access arrangement is consistent with the requirements of the Access Code.

Stand-by

Access Code Requirements

837. The Access Code requirements for stand-by are contained in sections 5.27 and 5.28 of the Access Code. Section 5.28(c) of the Access Code states that to the extent that a supplementary matter is not dealt with in the Market Rules or a written law, the access arrangement must deal with a supplementary matter in accordance with the technical rules applying to the covered network and the Code objective.

Western Power's Proposal

838. Western Power stated:[288]

> Under the Wholesale Electricity Market Rules there is no requirement for stand-by generation.

839. Western Power submitted:[289]

> The requirement for generation stand-by has been superseded by the Market Rules and is no longer applicable.

Interested Party Submissions

840. The Authority received three submissions on this issue. Perth Energy and Alinta raised the issue of whether Western Power should be required to provide a stand by service in the event that the commencement of the Wholesale Electricity Market is delayed. Newmont agreed with Western Power's proposed approach and stated that "the new market will satisfy the supply of "standby" and that there is no longer a need for the Networks Business Unit to provide such a service".[290]

Authority's Assessment

841. Section 5.28(c) of the Access Code states that to the extent that a supplementary matter is not dealt with in the Market Rules or a written law, the access arrangement must deal with a supplementary matter in accordance with the technical rules applying to the covered network and the Code objective.

842. Section 5.1(k) of the Access Code states that an access arrangement must include provisions dealing with supplementary matters. Supplementary matters include

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[288] Access arrangement, clause 10.5.

[289] Access arrangement information, section 11.4.5.

[290] Newmont, page 6.

stand-by. Western Power appears to be "dealing with" stand-by generation by omission. That is, Western Power will not be offering stand-by under the access arrangement.

843. In the Authority's view, it would not be consistent with the Code objective if the Authority were to insist that Western Power provide a supplementary matter that is superseded by the Market Rules. The Authority recognises the issue raised by Perth Energy and Alinta in their submissions but notes that this will only be an issue if the commencement of the Wholesale Electricity Market is delayed.

844. Clause 10.8 of the proposed access arrangement dealing with interim arrangements is considered to satisfactorily apply to stand-by generation. Clause 10.8 would function to provide a framework for stand-by to be provided (commensurate with Appendix 8 of the Market Rules), should the access arrangement commence prior to the Wholesale Electricity Market.

845. The Authority has assessed that clause 10.5 of Western Power's proposed access arrangement is consistent with the requirements of the Access Code.

Trading

Access Code Requirements

846. The Access Code requirements for trading are contained in sections 5.27 and 5.28 of the Access Code. Section 5.28(a) of the Access Code states that to the extent that a supplementary matter is dealt with in the Market Rules, the proposed supplementary matter must be consistent with, and facilitate the treatment of, the supplementary matter in the Market Rules. Trading is dealt with in the Market Rules.

Western Power's Proposal

847. Western Power submitted in clause 10.6 of its proposed access arrangement:

> Trading requirements under the Access Arrangement shall be in accordance with the Wholesale Electricity Market Rules, subject to section 10.8 of this Access Arrangement.

Interested Party Submissions

848. The Authority did not receive any submissions.

Authority's Assessment

849. The Authority notes that trading is dealt with in the Market Rules and that Western Power has adopted the requirements for trading contained in the Market Rules. In the Authority's view, this is consistent with section 5.28 of the Access Code.

850. The Authority has assessed that clause 10.6 of Western Power's proposed access arrangement is consistent with the requirements of the Access Code.

Settlement

Access Code Requirements

851. The Access Code requirements for settlement are contained in sections 5.27 and 5.28 of the Access Code. Section 5.28(a) of the Access Code states that to the extent that a supplementary matter is dealt with in the Market Rules, the proposed supplementary matter must be consistent with, and facilitate the treatment of, the supplementary matter in the Market Rules. Settlement is dealt with in the Market Rules.

Western Power's Proposal

852. Western Power submitted in clause 10.7 of its proposed access arrangement:

> Settlement requirements under the Access Arrangement shall be in accordance with the Wholesale Electricity Market Rules, subject to section 10.8 of this Access Arrangement.

Interested Party Submissions

853. The Authority did not receive any submissions.

Authority's Assessment

854. The Authority notes that settlement is dealt with in the Market Rules. Western Power has adopted the requirements for settlement contained in the Market Rules. The Authority has therefore assessed that clause 10.7 of Western Power's proposed access arrangement is consistent with the requirements of section 5.28 the Access Code and the Code objective.

Interim Arrangements

855. Western Power has stated that interim arrangements may be required if the Market Rules or the Metering Code are not operational at the commencement of the access arrangement.

856. Western Power states:

> The interim arrangements referred to in section 10.8 of this Access Arrangement will reflect working practices immediately prior to the commencement of this Access Arrangement or as otherwise reasonably directed by the Authority.[291]

857. In the Authority's view, to the extent that such interim arrangements are required (the Metering Code substantially commenced on 23 December 2005 and the Market Rules are intended to be completely in effect on 1 July 2006), Western Power's interim arrangements are consistent with section 5.28 of the Access Code.

858. The Authority has assessed that clause 10.8 of Western Power's proposed access arrangement is consistent with the requirements of the Access Code.

[291] Access arrangement, clause 10.9.

Regulatory Test

Access Code Requirements

859. Chapter 9 of the Access Code requires that the Authority assess a service provider's proposal for the construction of a "major augmentation" prior to committing to undertake that investment. The Authority must be satisfied that the investment maximises the net benefit to those who generate, transport and consume electricity in the covered network, after considering reasonable alternative options. This is known as the "regulatory test".

860. A "major augmentation" is defined in section 1.3 of the Access Code as:

> Major augmentation means an augmentation for which the new facilities investment for the shared assets:
>
> (a) exceeds $5 million (CPI adjusted), where the network assets comprising the augmentation are, or are to be, part of a distribution system; and
>
> (b) exceeds $15 million (CPI adjusted), where the network assets comprising the augmentation are, or are to be, part of:
>
> (i) a transmission system; or
>
> (ii) both a distribution system and a transmission system.

861. Section 9.5 of the Access Code states that a service provider has "committed" to a major augmentation for the purposes of the Access Code:

> … when the service provider intending to undertake the major augmentation, begins to put its intention into effect by doing an act which is more than merely preparatory to undertaking the major augmentation, including by:
>
> (a) making a substantial financial commitment in respect of the major augmentation, such as committing to:
>
> (i) a significant obligation which is legally binding; or
>
> (ii) an obligation which would have significant commercial repercussions if cancelled, discontinued or dishonoured;
>
> or
>
> (b) commencing, or procuring the commencement of, construction of the major augmentation.

862. Section 9.6 of the Access Code states:

> A service provider will not be considered to have committed to undertaking a major augmentation merely because the service provider has:
>
> (a) undertaken preparatory system or other studies in respect of the major augmentation; or
>
> (b) engaged in preparatory planning, design or costing activities in respect of the major augmentation; or
>
> (c) obtained an approval in respect of the major augmentation, unless the approval comes within the description in section 9.5(a) or 9.5(b).

863. The service provider is required to provide information on the major augmentation proposal for consideration by the Authority. The Authority's consideration of the major augmentation proposal may take place during an access arrangement

approval process pursuant to sections 9.10 to 9.14 of the Access Code, or within a regulatory period pursuant to sections 9.15 to 9.22 of the Access Code.

864. The Access Code also makes provision for the service provider to apply to the Authority to expedite, modify or waive the application of the regulatory test pursuant to section 9.23 of the Access Code.

Western Power's Proposal

865. In its proposed forecasts of transmission capital expenditure, Western Power has indicated that major transmission augmentations will occur.[292] Further, it has stated that network augmentations will be a significant proportion of capex forecasts for transmission.[293] However, Western Power has not submitted a major augmentation proposal as part of its proposed access arrangement.

866. Subsequent to submitting its proposed access arrangement Western Power provided the Authority with a list of capital projects which, in its view, would fall within the parameters of the regulatory test.[294] The projects are divided into projects which were committed before the commencement of the access arrangement period (1 July 2006) and projects which are proposed to be committed to after the beginning of the access arrangement period.

867. Western Power has indicated to the Authority that it intends to apply to the Authority to expedite, modify or waive the application of the regulatory test pursuant to section 9.23 of the Access Code for major augmentations to be committed to during the access arrangement period. At the time of this draft decision, Western Power has not submitted such a proposal.

Interested Party Submissions

868. Office of Energy stated:[295]

> Western Power should be required to develop and implement, in consultation with the Authority, a plan (including timeframes) to finetune its investment and planning processes to formally accommodate the Regulatory Test and the New Facilities Investment Test within its proposal.
>
> It should be acknowledged that planning for, and managing, the efficient implementation of these tests, will require the Authority and Western Power to determine the treatment of pre-existing committed investments, including those which were 'committed' to under the previous planning and investment regime.
>
> Sufficient flexibility is available within the Code for the Authority and Western Power to negotiate and implement such a plan to ensure that, in this transitional period, the requirements of both the Regulatory Test and the New Facilities Investment Test are explicitly considered to the maximum extent possible.

869. The Office of Energy also noted that "strong positive evidence of compliance with the Regulatory Test is also likely to become a critical risk management tool for the Board of the Network Service Provider in providing a measure of certainty about

[292] Access arrangement information, page 32.

[293] Access arrangement information, Appendix 7, page 139.

[294] Email from Western Power, 23 December 2005.

[295] Office of Energy, page 2.

how a particular investment may be viewed by the Authority at a future access arrangement review".[296]

870. The Conservation Council of Western Australia and the Australian Conservation Foundation noted the purpose of the regulatory test was to ensure "that network augmentation is undertaken only where distributed generation and energy efficiency options have been explored and found to have lower benefits than the augmentation option" and noted that the Authority "must ensure that only planned augmentations for which proof can be provided that legally binding contracts exist, and that predate the date of implementation of the Code, are allowed to avoid the scrutiny of the regulatory test".[297]

Authority's Assessment

871. As a threshold issue, the Authority has considered the application of the regulatory test to projects which fall within the definition of "committed" under sections 9.5 and 9.6 of the Access Code during the period prior to the commencement of the access arrangement (prior to 1 July 2006). In the Authority's view, the Access Code does not evince an intention that it be applied retrospectively. That is, to apply the regulatory test to projects which were "committed" to (within the definition of sections 9.5 and 9.6 of the Access Code) prior to the access arrangement period would be inconsistent with, and contrary to, the Access Code.

872. Western Power has not submitted a major augmentation proposal as part of the proposed access arrangement. Western Power has indicated that it intends to submit an application pursuant to section 9.23 of the Access Code to waive, expedite or modify the application of the regulatory test. However, Western Power has not currently submitted such an application and accordingly, the Authority is not in a position to form a view on such an application until it is submitted.

873. Therefore, although the Authority is not required, at this stage, to apply the regulatory test, as the regulatory test has not been expedited, waived or modified by the Authority, Western Power must, before committing to a major augmentation during the access arrangement period, submit a major augmentation proposal in accordance with sections 9.15 to 9.22 of the Access Code.

874. However, for the purpose of this draft decision, the Authority is not required to apply the regulatory test to those projects which would constitute a major augmentation for the purposes of the Access Code.

875. The Authority is not required, at this stage, to apply the regulatory test to those projects which would be considered a major augmentation for the purposes of the Access Code as Western Power has not submitted a major augmentation proposal as part of the proposed access arrangement.

876. The Authority considers that Western Power's treatment of major augmentations in its proposed access arrangement is consistent with the requirements of the Access Code.

[296] Office of Energy, page 3.

[297] Conservation Council of Western Australia, Inc and Australian Conservation Foundation.

Trigger Events

Access Code Requirements

877. Section 5.1(l)(ii) of the Access Code states that an access arrangement must include provisions dealing with trigger events. A trigger event is a set of one or more circumstances in an access arrangement, the occurrence of which requires the service provider to submit proposed revisions to the Authority.

878. This is in contrast to section 4.38 of the Access Code, which provides for the Authority to vary price control or pricing methods in an access arrangement before the revisions commencement date in specified circumstances. While this provision specifically covers those sections of an access arrangement relevant to pricing, section 5.34 of the Access Code relates to an access arrangement in its entirety.

879. Section 5.34 of the Access Code states that, if it is consistent with the Code objective, an access arrangement may specify one or more trigger events. Section 5.35 of the Access Code states that an access arrangement may specify a trigger event which was not proposed by the service provider.

880. In determining whether a trigger event is consistent with the Code objective, section 5.36 of the Access Code requires the Authority to consider whether the advantages of including the trigger event outweigh the disadvantages of doing so (in particular the disadvantages associated with decreased regulatory certainty), and whether the trigger event should be balanced by one or more other trigger events. It should be noted that the Access Code does not give the service provider discretion to resubmit an access arrangement prior to the revisions submission date other than by way of specified trigger events being met.

Western Power's Proposal

881. Western Power submitted:[298]

> Pursuant to section 4.37 of the Code the following events are trigger events:
>
> (a) A decision by the Authority; or Government; or an appointed agent or industry body that imposes costs on Western Power in order to facilitate the development of market rules or the introduction of contestability;
>
> (b) A decision by the Authority; or Government; or an appointed agent or industry body that requires Western Power to reorganise or restructure its operations; and
>
> (c) Any significant unforeseen development which has a materially adverse impact on the service provider and which is:
>
> (i) outside the control of the service provider; and
>
> (ii) not something that the service provider, acting in accordance with good electricity industry practice, should have been able to prevent or overcome; and
>
> (iii) an event the impact of which is so substantial that the Authority considers that the advantages of making the variation before the end of the access arrangement period outweigh the disadvantages, having regard to the impact of the variation on regulatory certainty.

[298] Access arrangement, clause 8.1.

882. Western Power stated that trigger events should only apply to "cover circumstances that potentially require material changes to the access arrangement".[299]

883. Specifically, in its access arrangement information, Western Power provides the following justification for its proposed trigger events.

- The inclusion of each trigger event reduces the company's financial exposure to defined events that are beyond its control and which, if eventuated, would have a material impact on the financial performance of the company.
- The company could therefore reasonably claim that if the proposed trigger event provision were not allowed either:
  - network prices would need to reflect the higher risks borne by shareholders (which would be less conducive to efficient use of the network); or
  - investment in networks would be lower than would otherwise be the case.
- Either of the two outcomes listed immediately above would be inconsistent with the Code objective, and therefore the inclusion of the proposed trigger events in the company's access arrangement is warranted, and meets the requirements of section 5.34.

884. Western Power's submission highlighted concerns on the Authority's interpretation that a trigger event should be clear, focused and specific. Western Power submitted that the interpretation added an additional criterion to the requirements of the Access Code. Following from its contentions, Western Power encouraged the Authority to rely only on the requirements of section 5.36 of the Access Code.

Interested Party Submissions

885. The Authority did not receive any submissions.

Authority's Assessment

Western Power's proposed clauses 8.1(a) and (b)

886. In determining whether the proposed clauses 8.1(a) and (b) are appropriate, the Authority has had regard to the Access Code requirements and regulatory practice in other jurisdictions.

887. In its position paper published in December 2005,[300] the AER specified several events where a pass-through or revenue cap re-opener would be permitted, namely:

- a change in taxes event;
- an insurance event;
- a service standards event;

[299] Access arrangement information, page 193.

[300] "Statement of principles for the regulation of electricity transmission revenues: Position paper: Pass-throughs and revenue-cap re-openers" AER December 2005, page 21.

- a terrorism event; and
- other events (subject to the approval of the AER before a revenue cap begins).

888. The Authority considers that Western Power's proposed clauses 8(a) and (b) are not commensurate with any of those events listed by the AER, and which are used for all other regulated electricity transmission networks across Australia to allow for a re-opening of an access arrangement.

889. In the absence of compelling reasons which are consistent with the Access Code requirements, the Authority does not see justification to depart from regulatory practice by approving trigger events outside those generally accepted in other jurisdictions.

890. Additionally, the AER[301] determined that the introduction of materiality thresholds would enhance certainty by providing clear signals on the operation of trigger events, which in the Authority's view is consistent with the requirements of section 5.36(a) of the Access Code in that the advantages of reopening an access arrangement must outweigh the disadvantages of doing so, in particular the disadvantages associated with decreased regulatory uncertainty. The AER acknowledged that materiality measures recognise that certainty during the course of a regulatory period is a powerful consideration and an approved access arrangement should not be lightly re-opened during its life.

891. Further, IPART, QCA and ICRC all adopt materiality thresholds for trigger events. Each regulator has determined that materiality thresholds aid in providing regulatory certainty within an access arrangement period by ensuring that only those events that materially impact on a service provider will trigger the re-opening of an access arrangement.

- IPART introduced a materiality threshold set at 1 per cent of the service provider's average annual smoothed revenue requirement over the regulatory period, symmetrically applying it so that trigger events could both potentially increase or decrease the service provider's costs.[302]
- ICRC introduced materiality thresholds of $7.5 million of total annualised cost on the service provider (in 2002/03 dollar terms).[303]
- QCA set the maximum demand trigger at +/-3 per cent of actual maximum demand growth on a non-weather corrected basis. The customer number trigger is activated when actual customer number growth is +/-3 per cent of the forecast in any one year. It also noted that the triggers will not be calculated on a cumulative basis.[304]

892. Unlike proposed clause 8.1(c), proposed clauses 8.1(a) and (b) do not incorporate materiality thresholds, and therefore the occurrence of the specified event need not necessarily be in the nature of a "significant unforeseen development which has a materially adverse impact on the service provider" in order for a reopening of the

[301] "Statement of principles for the regulation of electricity transmission revenues: Position paper: Pass-throughs and revenue-cap re-openers" AER December 2005, page 18.

[302] "NSW Electricity Distribution Pricing 2004/05 to 2008/09", IPART, Final Determination page 28.

[303] "Prices for Electricity Distribution in the ACT", ICRC Final Decision, March 2004, page 140.

[304] QCA (2005), page 47.

access arrangement to be triggered. This potentially results in a situation where costs imposed on Western Power from any of the events proposed may not have a material adverse impact upon the service provider, yet may operate to require the reopening of the access arrangement in its entirety.

893. Western Power's drafting of proposed clauses 8.1(a) and (b) currently offers it wide discretion in determining whether the circumstances associated with the proposed trigger events have occurred and are significant.

894. The Authority considers that the disadvantages of including trigger events which are drafted to have such an uncertain application – in that neither the Authority, Western Power or users can readily identify when an occurrence of the specified event will trigger the access arrangement to be reopened – outweighs the advantages of including proposed clauses 8.1(a) and (b), including the disadvantages associated with regulatory uncertainty.

895. The Authority is satisfied that, to the extent that the events as currently described in clauses 8.1(a) and (b) may be construed as "significant" and having a "materially adverse impact", they could conceivably fall within the scope of clause 8.1(c).

896. The Authority also notes that section 4.38 of the Access Code effectively acts as a "pass-through" provision, allowing for the re-opening of the price control and pricing methods of an access arrangement where a significant unforeseen development occurs that impacts on the service provider in a substantial way.

897. Therefore, the situations envisaged in Western Power's proposed clauses 8.1(a) and (b) – which are only phrased as relating to "costs" – could effectively be dealt with under section 4.38 of the Access Code, as the development of market rules, the introduction of contestability and the reorganisation or restructuring of Western Power would be deemed to be "outside the control of the service provider". Use of the mechanism provided for in section 4.38 of the Access Code would ensure that the balance of the access arrangement remains unaffected by the pass-through, rather than the specified events serving to trigger a re-opening in its entirety, thus providing greater regulatory certainty.

898. Consequently, the Authority determines that the trigger events proposed by Western Power in clauses 8.1(a) and (b) are inconsistent with section 5.36 of the Access Code and the Code objective.

Western Power's proposed clause 8.1(c)

899. Western Power has proposed a trigger event which is similar to section 4.38 of the Access Code (which is restricted to varying the price control and pricing methods). The effect of this trigger event would be to allow the re-opening of the access arrangement in its entirety following any significant unforeseen development, an example of which is a force majeure event.

900. In the view of the Authority, the circumstances in which proposed clause 8.1(c) would operate are clearly specified and certain, with only those situations that materially impact on the service provider serving to trigger a review of the access arrangement.

901. The Authority determines that service providers should be entitled to revisit an access arrangement should an event beyond its control have a material impact on

the ability to provide covered services. Proposed clause 8.1(c) is considered to be consistent with section 5.36 of the Access Code and the Code objective.

902. The Authority considers Western Power's trigger events contained within clauses 8.1(a) and (b) of the proposed access arrangement are not consistent with the requirements of the Access Code.

903. The Authority considers Western Power's trigger event within clause 8.1(c) of the proposed access arrangement is consistent with the requirements of the Access Code.

Required Amendment 62

Western Power to delete trigger events at clauses 8.1(a) and (b) of its proposed access arrangement.

Revisions Submission

Access Code Requirements

904. Section 5.1(l)(i) of the Access Code states that an access arrangement must include provisions dealing with the submission of proposed revisions to an access arrangement.

905. . Section 5.29 of the Access Code requires an access arrangement to include a date by which the service provider must submit revisions to the access arrangement (the revisions submission date), and a date upon which the revisions to the access arrangement are intended to commence (the revisions commencement date).

906. For the first regulatory period, section 5.30 of the Access Code requires the target revisions commencement date to be no more than three years after the access arrangement start date, and the revisions submission date to be at least six months before the target revisions commencement date.

Western Power's Proposal

907. The access arrangement proposed by Western Power includes provision for a revisions submission date of 31 December 2008, and a target revisions commencement date of 1 July 2009.[305]

Interested Party Submissions

908. The Authority did not receive any submissions.

[305] Access arrangement, clause 1.6.

Authority's Assessment

909. Provided the proposed access arrangement commences by the commencement date proposed by Western Power (i.e. 1 July 2006), these dates imply an access arrangement period of three years — the maximum initial regulatory period allowable under subsection 5.30(b) of the Access Code.

910. In accordance with section 5.30(b) of the Access Code the Authority considers that a target revisions commencement date of 1 July 2009 is appropriate.

911. The Authority does not accept Western Power's proposed revisions submission date of 31 December 2008. The Authority has assessed that Western Power's proposed revisions submission date is not consistent with the Code objective as it will not afford adequate time for interested parties to comment, and the Authority to comprehensively assess, access arrangement revisions given the target revisions commencement date of 1 July 2009. The Authority is of the view that a period of nine months between revisions submission and commencement is commensurate with the Code objective, as it will afford sufficient time for all interested parties to assess and respond to the proposed revisions. Accordingly, the Authority requires Western Power to amend its revisions submission date to 1 October 2008, thereby affording adequate time for the appropriate consideration of proposed revisions to the access arrangement.

912. The Authority's has assessed that clause 1.5 of Western Power's proposed access arrangement is not consistent with the requirements of the Access Code.

913. The Authority's has assessed that clause 1.6 of Western Power's proposed access arrangement is consistent with the requirements of the Access Code.

Required Amendment 63

The Authority requires Western Power to amend clause 1.5 of its access arrangement to reflect a revisions submission date of 1 October 2008.

OTHER RELATED MATTERS

Access Arrangement Information

Access Code Requirements

914. Sections 4.2 to 4.8 of the Access Code specify the requirements of a service provider's access arrangement information.

915. Amongst other things, access arrangement information must provide users, applicants and the Authority with information that is sufficient to understand how elements of a proposed access arrangement were derived.

916. Section 4.4 of the Access Code allows the Authority to publish guidelines on the requirements of requirements of access arrangement information.

Western Power's Proposal

917. Western Power considers that it has submitted its access arrangement information in accordance with section 4.1 of the Access Code.

918. The access arrangement information is divided into four parts, namely:

- introduction and background including detail on Western Power's network, planning and investment processes and recent performance;
- transmission business expenditure plans and total revenue including energy forecasts, capital and operating expenditure, asset valuation, WACC and total revenue;
- distribution business expenditure plans and total revenue including energy forecasts, capital and operating expenditure, asset valuation, WACC and total revenue; and
- regulatory framework including details on reference services, service standards, price control and pricing methods, proposed policies and contracts, trigger events and supplementary matters.

919. The access arrangement information also includes appendices to provide supporting documentation on each of the proposed elements of its access arrangement and access arrangement information.

Interested Party Submissions

920. The Authority has not received any submissions.

Authority's Assessment

921. The Authority has reviewed Western Power's proposed access arrangement information against the requirements of the Access Code.

922. Section 4.2 of the Access Code requires access arrangement information to provide details on how the service provider derived elements of the proposed access arrangement, allowing users to form an opinion on whether it is compliant with the Access Code.

923. As discussed throughout this draft decision, the Authority is not satisfied that the access arrangement information provides users, applicants and the Authority with sufficient detail to either understand how the proposed access arrangement was determined, nor whether it is compliant with the Access Code requirements.

924. Importantly, there are several areas in which the Authority is unable to assess compliance against specific Access Code requirements due to the limited nature of information available in the access arrangement information, including working capital, pricing methods and efficiency and innovation benchmarks.

925. Therefore, the Authority is not satisfied that the access arrangement information submitted by Western Power meets the requirements of section 4.2 of the Access Code as there is insufficient and inconsistent information.

926. The requirements of section 4.3 of the Access Code detail the information that is required within access arrangement information, including details supporting price

control, pricing methods, approved total costs and system capacity and volume assumptions.

927. As detailed in the Authority's draft decision, the Authority requires amendments to Western Power's proposed price control prior to providing its approval. Consequently, the Authority cannot be satisfied that the requirements of section 4.3(a) of the Access Code have been met.

928. Further the Authority considers that Western Power's proposed pricing methods due to, amongst other things, a lack of detail and supporting information do not meet the requirements of section 4.3(b) of the Access Code.

929. The total costs of a network include the capital and non-capital costs associated with the covered network. The Authority has accepted the recommendation following from Wilson Cook's assessment[306] of Western Power's forecast expenditure.

930. However, in reaching its conclusions, Wilson Cook sought considerable supporting documentation in order to satisfactorily consider the proposed forecasts. Therefore, the recommendations provided are a result of the supplementary information provided by Western Power rather than the information contained within the access arrangement information.

931. In particular, Wilson Cook noted:[307]

> An impediment to our work arose because the expenditures described in Appendix 7 to the access arrangement information – a supporting document containing descriptive material in relation to the expenditures – did not match the level of expenditure proposed by the Corporation [Western Power] in the main document. As a result, the nature of the proposed expenditures was unclear to us. This was pointed out to the Corporation and clarification of the work content of the expenditures in the main document was sought.

932. The Authority concurs with Wilson Cook's comments regarding the adequacy of Appendix 7 of the access arrangement information to underpin the expenditure forecasts.

933. While some of the supplementary information has been published or referred to by the Authority in this draft decision, the Authority requires Western Power to incorporate the information used in support of its total costs into revised access arrangement information in order for it to be consistent with section 4.3(c) of the Access Code.

934. The Authority has determined to accept the demand forecasts contained within the 2005 SOO rather than Western Power's proposal. This has resulted in the information being supplied in support of Western Power's proposed system capacity and volume assumptions being inconsistent with the requirements of section 4.3(d) of the Access Code, where the access arrangement information does not provide the detail and supporting capacity necessary for the demand forecasts used to derive the target revenue.

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[306] Wilson Cook (2005).

[307] Wilson Cook (2005), page 7.

935. As such, the Authority requires Western Power to revise the information contained within the access arrangement information to satisfy the requirements of section 4.3(d) of the Access Code.

936. The Authority does not consider Western Power's access arrangement information satisfies the requirements of sections 4.2 to 4.3 of the Access Code.

937. Further, section 4.8 of the Access Code gives the Authority the option to require amendments to, or the resubmission of, the access arrangement information within five business days.

938. The Authority considers appropriate revisions to the access arrangement information should support the required amendments of this draft decision.

Technical Rules

Access Code Requirements

939. Chapter 12 of the Access Code requires Western Power to submit technical rules to the Authority for its transmission and distribution networks in the SWIS. The technical rules consist of the standards, procedures and planning criteria governing the construction and operation of an electricity network, and are to deal with all the matters listed in Appendix 6 of the Access Code.

940. The technical rules potentially have implications for the capital expenditure and operations and maintenance expenditure forecasts in Western Power's proposed access arrangement, for example in relation to reliability, design planning and service standards.

Western Power's Proposal

941. Western Power submitted its proposed technical rules alongside its proposed access arrangement and access arrangement information on 24 August 2005.

Interested Party Submissions

942. In the issues paper, the Authority indicated that submissions would be invited following the publication of the draft technical rules. However, two submissions were received on the proposed technical rules.

943. Energy Safety Division of the Department of Consumer and Employment Protection provided a detailed submission on Western Power's proposed technical rules dated 10 November 2005.

944. In addition, the Office of Energy made comment:[308]

> Clause 2.5.1.1 of the Draft Technical Rule set out the reliability planning criteria that Western Power intends to apply to the 220 kV network supplying the Eastern Goldfields Region.
>
> Western Power is proposing to apply N-0 criteria to this transmission line. N-0 criteria may result in the loss of all loads in the area supplied by the transmission line

[308] Office of Energy, page 9.

as a result of the loss of a single transmission element. The Office of Energy believes that the criteria applying to other transmission lines supplying major regional centres in the South West Interconnected System should also be applied to the 220kV network supplying the Eastern Goldfields.

Authority's Assessment

945. The proposed technical rules are required to be processed, as far as possible, in parallel with the proposed access arrangement. It is important to note, however, that chapter 12 of the Access Code, rather than chapter 4, sets out the process to be followed in the assessment. The principal difference between the two assessments is that a Technical Rules Committee (**TRC**) is required to be established to assist the Authority in undertaking the assessment.

946. The TRC was established in January 2005 and consists of representatives of the Coordinator of Energy, Western Power, other interconnected networks and users. The full membership of the TRC can be viewed at www.era.wa.gov.au/electricity/trc.cfm.

947. The Authority – having regard to the advice of the TRC – is required to assess the technical rules proposed by Western Power and determine whether to:

- approve the technical rules proposed by the service provider; or
- amend the service provider's proposals to the extent necessary to comply with the requirements of the Access Code.

948. As required by section 12.11(b) of the Access Code, in December 2005 the TRC prepared and submitted a "preliminary report" on the proposed technical rules.

949. The Authority is required to publish draft technical rules within 15 business days after the publication of this draft decision.

950. The Authority will invite public submissions following release of the draft technical rules.

Market Rules

951. The Minister for Energy made the Market Rules pursuant to the *Electricity Industry (Wholesale Electricity Market) Regulations 2004* on 1 October 2004.[309]

952. The Market Rules govern trading and administration of the wholesale electricity market in the SWIS, which is to commence from 1 July 2006.

[309] Copies of the Market Rules can be obtained from: http://www.energy.wa.gov.au/3/3068/64/wholesale_elect.pm

953. The Market Rules include specific provisions having particular effect upon Western Power's access arrangement such as:

- power system security (including the provision of ancillary services);
- system management;
- wholesale market metering; and
- the inter-relationship with technical rules.[310]

954. System Management is a ringfenced business unit of Western Power that is responsible for dispatching the power system and whose functions are detailed in section 2.2 of the Market Rules. System Management's responsibility includes determining and procuring ancillary service requirements.[311]

955. System Management is not a covered service that is subject to, or funded by Western Power's access arrangement. System Management's budget is determined and recovered in accordance with sections 2.23 and 2.24 respectively of the Market Rules. However, System Management has certain network operation functions which are appropriately recovered by way of the access arrangement.

956. The Authority does not consider that the full amount of the forecast operating and maintenance expenditure proposed by Western Power for network operations and support costs has been justified. The Authority has assessed that there was insufficient evidence to demonstrate that these costs relating to System Management would not be recovered via market participant fees.

Network Reliability and Quality of Supply Code

957. The Minister for Energy made the *Electricity Industry (Network Quality and Reliability of Supply) Code 2005*[312] (**Quality and Reliability Code**) pursuant to section 39 of the *Electricity Industry Act 2004* with effect from 1 January 2006.

958. The Quality and Reliability Code applies to all holders of transmission, distribution and integrated regional licences in Western Australia. Section 14 of the Quality and Reliability Code provides for a network service provider to apply to the Minister for a variation of those obligations if it considers it necessary.

Metering Code

959. The Minister for Energy made the Metering Code pursuant to section 39 of the *Electricity Industry Act 2004* on 23 December 2005. [313]

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[310] Refer Market Rules, section 3.1.

[311] Refer Market Rules, section 3.9 to 3.15

[312] Copies of the Network Reliability and Quality of Supply Code can be obtained from: http://www.slp.wa.gov.au/gazette/gazette.nsf/gazlist/195C5FC935A543A1482570D60004E893/$file/gg233.pdf

[313] Copies of the Metering Code can be obtained from: http://www.slp.wa.gov.au/gazette/GAZETTE.NSF/gazlist/1B502E19E514347D482570DF0010E50E/$file/gg243.pdf

960. The Metering Code sets out the rights, obligations and responsibilities of Metering Code participants associated with the measurement of electricity and the provision of metering services, as well as the rules for the provision of metering installations at connection points, and the rules for the provision of metering services, standing data and energy data.

961. In clause 10.3 of its access arrangement, Western Power has proposed to comply with the requirements of the Metering Code in relation to its metering requirements under its access arrangement.

Regulatory Reporting Information

962. The receipt of regular reporting information is important for the Authority to determine how Western Power is performing against relevant benchmarks throughout the access arrangement period. The provision of such information is an important part of the regulatory process. The Authority recognises that the provision of such information also represents a compliance burden on Western Power. Therefore, the Authority has endeavoured to balance its need for on-going compliance information from Western Power with the need for light handed regulation. Accordingly, the Authority intends to require Western Power to provide it with:

- the actual performance by Western Power against the service standard benchmarks; and
- actual capital and operational expenditure as against forecast expenditure.

963. In the Authority's view, sections 13.11(g) and 14.4 of the Code provide it with power to require Western Power to provide such information in the form stipulated above. Further, the distribution licence and transmission licence for Western Power will contain clauses which compel Western Power to provide information in a form specified by the Authority in a time specified by the Authority (see clauses 22 and 18 of the standard form distribution and transmission licences respectively). Accordingly, the Authority intends to use this power to require Western Power to provide a signed declaration from a responsible officer of Western Power containing the:

- actual performance by Western Power against the service standard benchmarks; and
- actual capital expenditure by Western Power by expenditure and asset type against the forecast capital expenditure category by expenditure type (as submitted by Western Power in its section 51 response); and
- actual operations and maintenance expenditure by Western Power by expenditure type against the forecast operations and maintenance expenditure category by expenditure type.

PART B

Standard Access Contract

Introduction

964. Section 5.1(b) of the Access Code provides that an access arrangement must include a standard access contract (**SAC**) for each reference service. Sections 5.3 to 5.5 of the Access Code set out the requirements which must be met by a SAC.

965. Western Power has proposed three SACs, being one for the transfer of electricity, one for connection services only and one for interconnection (construction) works. The Authority will assess each of these in turn in sections on the Electricity Transfer Access Contract (**ETAC**), Connection Access Contract (**CAC**) and Interconnection Works Agreement (**IWA**) respectively.

966. An access contract must be attached to each reference service. While the Authority has required Western Power to clarify its proposed reference services in the relevant section of this draft decision, the Authority has assessed the proposed SACs against the requirements of the Access Code, Code objective and the model standard access contract (**MAC**) provided in Appendix 3 to the Access Code.

967. Sections 5.3 to 5.5 of the Access Code provide as follows:

> 5.3 A standard access contract must be:
>
> (a) reasonable; and
>
> (b) sufficiently detailed and complete to:
>
> (i) form the basis for a commercially workable access contract; and
>
> (ii) enable a user or applicant to determine the value represented by the reference service at the reference tariff.
>
> 5.4 A standard access contract may:
>
> (a) be based in whole or in part upon the model standard access contract, in which case, to the extent that it is based on the model standard access contract, any matter which in the model standard access contract is left to be completed in the Access Arrangement, must be completed in a manner consistent with:
>
> (i) any instructions in relation to the matter contained in the model standard access contract; and
>
> (ii) section 5.3; and
>
> (iii) the Code objective;
>
> and
>
> (b) be formulated without any reference to the model standard access contract and is not required to reproduce, in whole or in part, the model standard access contract.
>
> {Note: The intention of this section 5.4(b) is to ensure that the service provider is free to formulate its own standard access contract which complies with section 5.3 but is not based on the model standard access contract.}
>
> 5.5 The Authority:
>
> (a) must determine that a standard access contract is consistent with section 5.3 and the Code objective to the extent that it reproduces without material omission or variation the model standard access contract; and

(b) otherwise must have regard to the model standard access contract in determining whether the standard access contract is consistent with section 5.3 and the Code objective.

Electricity Transfer Access Contract

968. Western Power, in its proposed access arrangement, includes a SAC known as the ETAC.

969. Western Power states that the ETAC is based upon the MAC, albeit with some "major changes from the Model Access Contract".[314]

970. Western Power has provided justification for its proposed variations, omissions and additions to the Authority in relation to the ETAC in its access arrangement information at Appendix 10.

971. The following interested parties made submissions commenting on the ETAC:

- Office of Energy;
- Western Power Generation;
- Perth Energy;
- Newmont; and
- Alinta.

972. There are a substantial number of provisions in the ETAC which are identical to those contained in the MAC. The Authority considers that these provisions reproduce without material omission or variation the MAC under section 5.5(a) of the Access Code and, therefore, the Authority considers that the inclusion of these provisions meet the requirements of the Access Code.

973. There are also a substantial number of cases where the ETAC contains an omission or variation from the MAC which the Authority regards as not material, having regard to the Code objective. In such cases the Authority considers these omissions or variations meet the requirements of the section 5.5(a) of the Access Code.

974. The majority of the provisions of the ETAC fall into the categories described in paragraphs 972 and 973. Once the Authority has concluded that a provision meets the requirements of section 5.5(a) of the Access Code, the Authority has no further discretion to amend or delete a clause even where submissions have been received seeking amendment or deletion of a clause.

975. Of the 141 total subclauses included in the proposed ETAC, 103 have been assessed by the Authority as being consistent with the requirements of section 5.5(a) of the Access Code and are therefore not discussed in this draft decision.

976. There are a number of provisions of the ETAC which contain an omission or variation from the MAC which, pursuant to section 5.5(a) of the Access Code, the Authority regards as material having regard to the Code objective. In such cases, the Authority has, on a clause-by-clause basis, assessed whether the omission or

[314] Access arrangement information, Appendix 10, page 3.

variation is consistent with section 5.3 and the Code objective, having regard to the provisions of the MAC.

977. Western Power has added provisions in the ETAC which have no equivalent in the MAC. In such cases the Authority has, on a clause-by-clause basis, assessed whether the provision is consistent with section 5.3 of the Access Code.

978. There are provisions of the MAC which are left for completion in the SAC. In these cases, to the extent that the ETAC provision is based upon the relevant MAC provision, the Authority has, on a clause-by-clause basis, assessed whether the provision has been completed in a manner which is consistent with any instructions in relation to the matter contained in the MAC, section 5.3 and the Code objective.

979. In relation to the provisions of the ETAC which are not assessed as being consistent with section 5.5(a) of the Access Code, the Authority has assessed each provision against the relevant criteria in the Access Code, taking account of Western Power's and other parties' submissions.

980. In assessing the ETAC against the requirements of the Access Code, the Authority notes that section 5.5(b) of the Access Code requires the Authority to have regard to the MAC when testing the relevant clause for consistency with section 5.3 of the Access Code and the Code objective. As such, the Authority's role under section 5.5(b) is to test the consistency of the proposed clause with section 5.3 and the Code objective, taking the approach under the MAC as one example of an approach which would be consistent with those provisions.

981. Where the Authority is not satisfied that an omission or variation from the MAC meets the requirements of the Access Code and subsequently additional information is provided through submissions demonstrating that the omission or variation does in fact meet the requirements of the Access Code, then the Authority will reconsider the omission or variation prior to the final decision.

982. Where the Authority's assessment is that the proposed clause is not consistent with the relevant Access Code criteria after taking account of submissions received, the required amendments are set out at the conclusion of the discussion of the relevant clause.

Definitions of "Connection Contract" and "Interconnection Works Agreement" (ETAC clause 1.1)

Western Power's Proposal

983. ETAC clause 1.1 includes definitions of "Connection Contract" and "Interconnection Works Agreement". These are contracts proposed by Western Power to be included in the access arrangement as SACs. As they are not contracts contemplated under the Access Code or the MAC there are no equivalent definitions in the MAC.

Interested Party Submissions

984. The Authority has not received any public submissions.

Authority's Assessment

985. For the reasons set out in the Authority's assessment of the proposed Connection Access Contract and Interconnection Works Agreement and in this draft decision the Authority does not consider that the proposed contracts meet the requirements of a SAC under the Access Code.

986. There is a consequential amendment to the ETAC to delete the definitions.

Required Amendment 64

Western Power to amend Electricity Transfer Access Contract clause 1.1 to delete the definitions of "Connection Contract" and "Interconnection Works Agreement".

Definitions of "Contracted Point" and "Connection Point" (ETAC clause 1.1; MAC clause A3.2)

Western Power's Proposal

987. MAC clause 3.2 contains a definition of "connection point", being an entry point or exit point on the network. This is used extensively throughout the MAC.

988. Throughout the ETAC Western Power has used the term "contracted point" instead of "connection point". Western Power asserts that there is no material difference between the concept of a "contracted point" under the ETAC and a "connection point" under the MAC.

989. In relation to the use of "contracted point" Western Power submitted:

> Western Power has used Contracted Points rather than Connection Points wherever possible to avoid confusion between points at which title of electricity changes (i.e. the meter point) and where title of the network assets changes (to be known under the Obligation to Connect Regulations as the Attachment Point).[315]

Interested Party Submissions

990. The Office of Energy has submitted as follows:

> Western Power has amended a number of definitions (e.g. "connection point" has been replaced with "contracted point"). This change does not appear to pick up on the Electricity Transfer Access Contract definition which for "facilities and equipment" refers to the Access Code, which in turn refers to a 'connection point'.[316]

Authority's Assessment

991. Western Power's proposal varies from the MAC by substituting "connection point" for "contracted point", for which the definitions vary. The Authority considers that

[315] Access arrangement information, Appendix 10, page 4.

[316] Office of Energy, page 10.

the variation is material as it creates confusion over what points are to be covered under a SAC.

992. The Authority notes that the confusion arising from the use of "connection point" which Western Power relies upon to justify the variation relates to concepts used in another instrument (i.e. the *Electricity Industry (Obligation to Connect) Regulations 2005* refers to the "Attachment Point") and, therefore, is not relevant to its usage in the ETAC.

993. MAC clauses A3.19 to A3.24 provide for the relocation of a user's capacity from one connection point at which the user has capacity (defined by the ETAC as a "contracted point") to another connection point at which the user does not already have capacity (defined as a "destination point"). Western Power has proposed not to include in the ETAC equivalent provisions to MAC clauses A3.19 to A3.24. In paragraphs 1061 to 1067 the Authority has determined to require Western Power to amend the ETAC to include MAC clauses A3.19 to A3.24 without material variation or omission. A consequence of this required amendment is that the ETAC will include a concept of a "contracted point" being a connection point at which a user does not have capacity. The use of the term "contracted point" in the ETAC in substitution for "connection point" in the MAC could, therefore, cause confusion.

994. For the reasons above, and having had regard to the MAC, approval of the proposal would not be consistent with the requirement to be sufficiently detailed and complete to satisfy the requirements of section 5.3(b) of the Access Code.

995. The Authority requires Western Power to adopt the term "connection point" throughout its proposed access arrangement. The Authority notes that the term "contracted point" has been used in a substantial number of places in the proposed ETAC in substitution for the term "connection point" as used in the MAC. Therefore, there is a need for consequential amendments to the ETAC in each place where "contracted point" is used.

Required Amendment 65

Western Power to amend Electricity Transfer Access Contract clause 1.1 by substituting the term "connection point" for "contracted point" in the definition of "contracted point" and consequential amendments should be made to the Electricity Transfer Access Contract in each place where the term "contracted point" is used.

Definition of "Force Majeure" (ETAC clause 1.1; MAC clause A3.2)

Western Power's Proposal

996. The definition of "force majeure" in ETAC clause 1.1 includes as a relevant event in paragraph (b) "terrorism". This is not included in the corresponding MAC definition.

997. Western Power submitted:

> … terrorism has been added to the list of possible force majeure events.[317]

Interested Party Submissions

998. Newmont has submitted as follows:

> Clause 1.1 Definitions – The definition of Force Majeure appears too broad. The current definition appears to give the Service Provider a great deal of freedom in calling Force Majeure for supply interruptions caused by issues which may have been predicted or avoided by certain actions on its part. Given the implications of these it seems prudent to tighten this definition.
>
> Drafting should be amended to include the concepts of the Party's ability to pre-empt, avoid or overcome the event. Items (c) – (e) should include reference to the pre-existence of such things as legal proceedings before the Commencement Date, and their exclusion from relief under Force Majeure. Item (f) should be amended to exclude strikes, labour slowdowns, labour disputes or other industrial relations issues limited to the Party and contributed to by the Party.[318]

Authority's Assessment

999. The definition provided in the ETAC for force majeure specifically requires the event to be beyond the party's control and which it "is not able to prevent or overcome". The Authority considers that this would alleviate the concerns raised by Newmont. Further, under section 5.5(a) of the Access Code it is not open to the Authority to reject the definition to the extent it reproduces the MAC definition without material omission or variation.

1000. The proposed definition of "force majeure" in the ETAC reproduces without material omission or variation the MAC definition and is consistent with the requirements of the Access Code and the Code objective.

Option to extend Term (ETAC clause 2.2; MAC clause A3.6)

Western Power's Proposal

1001. MAC clause A3.6 leaves for completion in the access arrangement a variable, *[x]*, with respect to an option to extend the term of a SAC. The Access Code provides for the service provider to insert options or to leave it for agreement between parties.

1002. ETAC clause 2.2(a) provides for the user to be granted an option to extend for a period to be agreed and specified in Schedule 1, exercised by notice by the user given no later than six months prior to the expiration of the term of the ETAC. ETAC clause 2.2(b) provides that, except by mutual agreement, the ETAC is not to be extended to a date later than the latest termination date, which is a date to be agreed and specified in Item 7 of Schedule 1 of the ETAC.

[317] Access arrangement information, Appendix 10 page 9.

[318] Newmont, page 2.

Interested Party Submissions

1003. The Authority has not received any public submissions.

Authority's Assessment

1004. Western Power's proposal provides for the parties to negotiate the terms and conditions of any option.

1005. The Authority is satisfied that the clause has been completed, as required by section 5.4(a) of the Access Code, in a manner consistent with the instructions contained in the Access Code, section 5.3 of the Access Code and the Code objective.

1006. However, the reference to the Latest Termination Date being in Item 7 of Schedule 1 is incorrect. The correct reference should be to Item (v) of Part 2 of Schedule 1.

Required Amendment 66

Western Power to amend the reference in Electricity Transfer Access Contract clause 2.2 (Option to extend Term), to Item 7 of Schedule 1 to refer to Item (v) of Part 2 of Schedule 1.

Conditions Precedent (ETAC clause 2.3; MAC clause A3.7)

Western Power's Proposal

1007. MAC clause A3.7 leaves for completion in the access arrangement a variable, *[x]*, with respect to conditions precedent if applicable. The Access Code provides for the service provider to insert options or to leave it for agreement between parties.

1008. ETAC clause 2.3 contains terms and conditions relating to the operation of conditions precedent which are to be agreed and specified in Item 3 of Schedule 1 to the ETAC.

Interested Party Submissions

1009. The Authority has not received any public submissions.

Authority's Assessment

1010. ETAC clause 2.3 leaves the content of any conditions precedent to be agreed between the parties or subject to an arbitrated award. The provisions in ETAC clause 2.3 are mechanical provisions to enable the effective and certain operation of any agreed conditions precedent.

1011. The Authority is satisfied that ETAC clause 2.3 has been completed, as required by section 5.4(a) of the Access Code, in a manner consistent with the instructions contained in the Access Code, section 5.3 of the Access Code and the Code objective.

User may select Services (ETAC clause 3.2)

Western Power's Proposal

1012. ETAC clause 3.2 makes provision for a user to apply to Western Power to change a service in respect of a connection point. ETAC clause 3.2 is a provision which has no equivalent in the MAC.

Interested Party Submissions

1013. Alinta submitted:

> It is not clear to Alinta why the Price Application Policy is related to the procedure for a user to request a change in service and for Western Power to process such a request. It is Alinta's understanding that the Price Application Policy is concerned with the rules and procedures governing the application of tariffs. Alinta queries whether clause 3.2 of the Transfer Contract should refer to the Applications and Queuing Policy instead of the Price Application Policy.[319]

Authority's Assessment

1014. A change of services in accordance with ETAC clause 3.2 would be subject to the applications and queuing policy (as a Class 1 application). As such, the inclusion of the proposed clause would merely reinforce the existing requirements of the applications and queuing policy. To this extent, the Authority considers that ETAC clause 3.2 is consistent with section 5.3 of the Access Code and the Code objective.

1015. However, Alinta's comments in relation to the apparent mistaken reference to the Price Application Policy appear to be correct. To the extent that the clause refers to the Price Application Policy incorrectly, the proposal is not consistent with the Access Code as it is not sufficiently detailed to satisfy the requirements of section 5.3(b) of the Access Code.

Required Amendment 67

Western Power to amend Electricity Transfer Access Contract clause 3.2 (User may select Services) by replacing the term "Price Application Policy" with "Applications and Queuing Policy" where the earlier term appears.

Use of Contracted Capacity (ETAC clause 3.4)

Western Power's Proposal

1016. ETAC clause 3.4 provides a procedure to reduce a user's capacity at a connection point upon the initiative of Western Power. There is no equivalent in the MAC.

[319] Alinta, page 26.

1017. The proposed procedure under ETAC clause 3.4 involves Western Power making a determination to decrease a user's capacity at a connection point, based upon criteria set out in the clause and then giving the user written notice of the determination.

1018. Western Power submitted:

> The electricity transfer provisions of the SAC deal with the provision and use of, and changes to the contracted services, including changes to contracted capacity and addition and deletions of contracted points, and sets out the rights and obligations of the Parties in each situation.
>
> These provisions confer on Western Power the right to decrease the contracted capacity at a Contracted Point subject to suitable safeguards for the user, including a reasonableness test, notice period and exception arising from Force Majeure events. Whilst safeguarding existing users, this provision enables Western Power to optimise its investment in and operation of the network for the benefit of all current and prospective users, which in turn promotes competition and meets the Code objective.[320]

Interested Party Submissions

1019. Office of Energy submitted:

> Western Power has provided itself with the right to decrease the contracted capacity at a contracted point. Some issues that may arise include:
>
> - The customer's Capital Contribution would have been determined based on its Contracted Capacity. Will there be an equivalent refund to the User?
> - Clause 3.11 allows Western Power to charge the User a Capital Contribution prior to reducing the Contracted Capacity. It should be made clear how this right relates to clause 3.4.[321]

1020. Alinta submitted:

> … that clause 3.4 of the Transfer Contract is unreasonable because it allows Western Power to use discretion to decrease a user's "contracted capacity". Further, that discretion is unreasonably wide in scope. When making a determination under clause 3.4(a) of the Transfer Contract, Western Power is required to have regard to the nature, condition and use of the facilities and equipment installed at the "contracted point" and whether the user cannot use the services because of a force majeure event (clause 3.4(b) of the Transfer Contract). However, Western Power is not required to consider whether the network capacity actually being used by the user is materially less than the "contracted capacity". Nor is it clear how Western Power would be in a position to be able to form an opinion as to whether the "contracted capacity" is "not reasonably necessary". Further, such a provision may materially decrease certainty associated with contracted capacity, thereby adversely affecting the interests of users. Therefore, Alinta submits that clause 3.4(a) of the Transfer Contract (as currently phrased) is both unreasonable and will also negatively affect a user's or applicant's ability to determine the value represented by the reference service at the reference tariff. This type of discretion will make Transfer Contracts unbankable for project finance purposes and make it difficult for users to manage exposure under supply contracts with customers.[322]

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[320] Access arrangement information, Appendix 10, page 4.

[321] Office of Energy, page 11.

[322] Alinta, page 24.

1021. Newmont submitted:

> Clause 3.4 Use of Contracted Capacity – There appears to be a requirement for the stipulation of times for notification and response of Western Power's intent to decrease the Contract Capacity if it considers it is not necessary to satisfy the User's actual requirements. As drafted, Western Power appears to have the immediate ability to vary the Contracted Capacity with written notification to the User.[323]

1022. Western Power Generation submitted:

> It is inappropriate for Networks to have a right to unilaterally reduce a user's contracted capacity. Accordingly, clause 3.4 of the ETAC should be deleted.[324]

Authority's Assessment

1023. Western Power has proposed an additional provision, which was not provided for in the MAC, by providing a procedure to reduce a user's capacity at a connection point upon the initiative of Western Power. While the procedure is subject to both a reasonableness test and Western Power "having regard to" certain matters, in the view of the Authority, this is a material variation from the MAC as it confers a discretion on Western Power to unilaterally decrease a user's contracted capacity.

1024. The Authority recognises that there may be circumstances in which a user's contractual entitlements may be used in a way which either impairs competition downstream or upstream, or results in inefficient network utilisation. However, the Authority notes that if a user is not utilising or expecting to utilise contracted capacity, the user will have a commercial incentive to seek to trade any spare capacity, which will contribute to the efficient utilisation of the network. The Authority considers that there is no evidence of a risk of inefficient use of the network such as to justify the proposed ETAC clause.

1025. The MAC provides a general framework for variations (including decreases) to a user's capacity in MAC clauses A3.15 and A3.16. In contrast to ETAC clause 3.4, the process under the MAC may only be initiated by the user and not Western Power. In the view of the Authority the MAC framework reflects a balance between the need for service providers to be able to efficiently make use of underutilised network capacity and the rights of users to contract for guaranteed access to network capacity.

1026. For the reasons above, and having regard to the MAC, the Authority considers that it would not be reasonable for Western Power to vary a user's contracted capacity without the agreement of the user, in circumstances where Western Power will not be aware of the user's expected capacity requirements. Therefore, the Authority considers that the proposed clause is inconsistent with the requirements of section 5.3(a) of the Access Code and the Code objective.

[323] Newmont, page 2.

[324] Western Power Generation, page 11.

Required Amendment 68

Western Power to delete Electricity Transfer Access Contract clause 3.4 (Use of Contracted Capacity) and replace it with Model Access Contract clauses A3.15 and A3.16 without material omission or variation.

Increase of Contracted Capacity (ETAC clause 3.6; MAC clause A3.17)

Western Power's Proposal

1027. ETAC clause 3.6 makes provision whereby a user may not increase contracted capacity unless the user makes application under the applications and queuing policy, the customer transfer code, or the ETAC as applicable.

1028. By contrast, MAC clauses A3.15 to A3.17 provide a procedure for variation to user capacity by the user issuing a capacity increase notice without the need for any other application as contemplated by Western Power's proposal.

1029. Western Power submitted:

> The SAC requires that any capacity increase be dealt with under the contract, the Applications and Queuing Policy and the Customer Transfer Code, as applicable. This enables Western Power to properly consider the potential impacts of an application on other users and thereby enables Western Power to optimise its investment in and operation of the Network in accordance with the Code objective.
>
> The notion of a capacity increase notice has been removed from the SAC to avoid duplication and thereby mitigate compliance risk with the application process.[325]

And:

> Applications for increase in capacity are dealt with in class 1 applications and therefore the concept of a capacity increase notice has been removed from the applications and queuing policy, in line with Western Power's SAC to avoid the risk of an applicant's position in the queue being otherwise prejudiced by having to comply with an additional procedure.
>
> Given that a customer transfer request is not an application, the class 1 application definitions is most relevant to a capacity increase. However, the model policy described a capacity increase notice, which was intended to provide a simpler mechanism of gaining a capacity increase than submitting a normal access application. The timeframes for processing a capacity increase notice in the model clashed with the timeframes for processing a class 1 application. Either the class 1 application or the capacity increase notice would appear to be redundant.
>
> For practical reasons, Western Power will provide a suite of forms to suit different types of application, and a simpler form for a capacity increase will be made available. But to ensure that a clear process is outlined for capacity increases, existing users will be required to apply under the applications and queuing policy like any other applicant.[326]

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[325] Access arrangement information, Appendix 10, page 4.

[326] Access arrangement information, Appendix 8, pages 4-5.

Interested Party Submissions

1030. The Authority has not received any public submissions.

Authority's Assessment

1031. Western Power has proposed a variation to the MAC by excluding the concept of a "capacity increase notice". The Authority considers that this is a material variation as it removes the right to expeditious increases of capacity for existing users.

1032. The MAC provides a process, through the capacity increase notice procedure, which only provides an existing user with a right to an increase, under the capacity increase notice process, where no network augmentation will be required and ensures no other user or potential applicant will be impeded by the increase. In all other circumstances, an existing user will be required to seek capacity increases through the applications and queuing policy.

1033. In relation to Western Power's contention that the MAC provisions involve duplication of the applications and queuing policy, the model applications and queuing policy provides for a capacity increase notice corresponding to the notice under MAC clause A3.17. The MAC clause A3.17 notice is dealt with differently to an application for new capacity. Western Power has proposed deleting the capacity increase procedure under both the ETAC and the applications and queuing policy. However, the duplication referred to by Western Power can only arise if the Authority accepts the proposal to delete the capacity increase notice procedure, given Western Power's proposal to deal with all capacity increases under the applications and queuing policy.

1034. The Authority acknowledges the Access Code intention to provide for a streamlined process as envisaged in both the MAC and the model applications and queuing policy (i.e. in circumstances where no network augmentation is required and where there is no applicant in the queue for that capacity). A capacity increase notice facilitates this streamlined process.

1035. For the reasons above, and having regard to the MAC, the Authority considers that the proposed clause is not reasonable and is inconsistent with section 5.3(a) of the Access Code and the Code objective.

Required Amendment 69

Western Power to delete Electricity Transfer Access Contract clause 3.6 (Increase of Contracted Capacity) and reproduce the procedure for a variation in user capacity in Model Access Contract clauses A3.15 to A3.17 without material omission or variation.

Start Date of new Services (ETAC clause 3.7)

Western Power's Proposal

1036. ETAC clause 3.7 makes provision for the "Start Date" of a new service. There is no equivalent to the proposed clause in the MAC.

1037. Western Power submitted:

> The SAC specifies the start date of new services as either the date of practical completion of any works required to provide the services or, if there are no works, the date of signing the relevant access offer. This is to ensure that payment by the user for services commences at the same time as the provision of services commences.[327]

Interested Party Submissions

1038. The Authority has received no public submissions.

Authority's Assessment

1039. Western Power has proposed an additional provision, which was not provided for in the MAC, by introducing a provision for the determination of a start date of new services. The Authority considers that this is a material addition as it creates duplication which consequently gives rise to uncertainty or ambiguity (with a provision in a schedule to the ETAC) as to when the services under the access contract start.

1040. The MAC provides a start date for each connection point to be agreed and specified in Schedule 3 (as does the ETAC). The start date is relevant because a note to MAC clause A3.5 provides that the obligation on the service provider to provide services at a connection point is determined by the start date specified under the contract.

1041. Western Power's proposal does not have any apparent purpose given that the framework under the MAC and elsewhere in the ETAC would appear to provide certainty about when the obligation to provide services commences. Ordinary contractual principles would then determine the point at which the obligation to pay commences.

1042. For the reasons above, and having regard to the MAC, the Authority considers that proposed ETAC clause 3.7 is not sufficiently detailed and complete and therefore is inconsistent with section 5.3(b) of the Access Code.

Required Amendment 70

Western Power to delete Electricity Transfer Access Contract clause 3.7 (Start Date of new Services).

[327] Access arrangement information, Appendix 9, page 5.

Contribution of Capacity increase or new Contracted Point (ETAC clause 3.8)

Western Power's Proposal

1043. ETAC clause 3.8 provides for Western Power to obtain security before it commences capital works for which a contribution is required. There is no equivalent in the MAC.

1044. Western Power submitted:

> Another new clause requires that a contribution be secured before Western Power commences work. Whilst this is somewhat redundant, as it is a requirement of the Code (section 2.9) and the capital contributions policy, it has been added here to reinforce the fact that Western Power might be waiting for a controller who is not the user to pay the contribution.[328]

Interested Party Submissions

1045. Office of Energy submitted:

> Section 2.9 of the Access Code appears to allow a Network Service Provider to require a User to make a capital contribution upfront. However, clause A3.51(b) provides more flexibility, as this clause states that security may be required if the Network Service Provider determines that the User's "technical or financial resources are such that a reasonable and prudent person would consider there to be a material risk that the user would be unable to meet its obligations under the contract".
>
> The Authority is encouraged to consider whether the tightening of Western Power's position in relation to Capital Contributions is reasonable?[329]

Authority's Assessment

1046. Western Power has proposed an additional provision, which was not provided for in the MAC, by introducing a provision dealing with capital contributions. In the view of the Authority, this is a material addition as it duplicates a matter of detail under the capital contributions policy.

1047. The Authority does not consider that section 2.9 of the Access Code contains a mandatory requirement for security to be given by a user before augmentation works commence.

1048. The Authority also considers that the appropriate instrument for dealing with capital contributions is the capital contributions policy (discussed at paragraph 1692) and it is therefore not appropriate to deal with it in an access contract, which deals with terms and conditions for the transfer of electricity.

1049. For the reasons above, and having regard to the MAC, the Authority considers that the proposed additional requirement is not reasonable and therefore inconsistent with section 5.3(a) of the Access Code and the Code objective.

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[328] Access arrangement information, Appendix 10, page 5.

[329] Office of Energy, page 11.

Required Amendment 71

Western Power to delete Electricity Transfer Access Contract clause 3.8 (Contribution of Capacity increase or new Contracted Point).

Decrease of Contracted Capacity (ETAC clause 3.9; MAC clause A3.15 & A3.16)

Western Power's Proposal

1050. ETAC clause 3.9 sets out a procedure by which a user may decrease contracted capacity at a connection point from time to time but restricts a user to one variation in each 12 month period. The MAC by contrast, has a general procedure for varying capacity under clauses A3.15 and A3.16, but does not restrict the number of variations which a user may seek.

1051. Western Power submitted:

> The SAC allows for a user to decrease contracted capacity (whether due to relocation or otherwise) and obliges Western Power to accept such application, subject to appropriate notification and in any event only once in any twelve month period. The purpose of the 12 month period restriction is to facilitate an orderly market for access, to minimise the administrative costs to Western Power and to prevent users seeking to pass their seasonal revenue variations onto Western Power, when those variations are not reflective of the costs of maintaining the fixed network assets.
>
> Overall, this clause enables users to access underused capacity whilst mitigating the risk of stranded assets. It was foreshadowed in a note in the MAC under the definitions of CMD and DSOC, suggesting that a service with a varying demand would be a non-reference service. (This note has been deleted, as Western Power has defined several reference services that have, by their nature, varying demands, such as a Time of Use services.)[330]

Interested Party Submissions

1052. Alinta submitted:

> … that it is unreasonable to restrict the user to notifying Western Power only once every 12 months that it seeks to reduce "contracted capacity". Further, this restriction is inconsistent with the Code objective of promoting competition in markets upstream and downstream of the SWIN, as it is inflexible for users.
>
> Alinta submits that users should be able to apply to reduce their "contracted capacity" at a "contracted point" when it is commercially necessary to do so, especially given the proposed clause 3.11 of the Transfer Contract. However, Alinta acknowledges that Western Power may wish to restrict users from making an application to reduce the "contracted capacity" where the intention or ultimate effect of the variation would be to take commercial advantage of seasonal fluctuations in electricity consumed at the contracted connection.

[330] Access arrangement information, Appendix 10, page 5.

> Alinta suggests that the Transfer Contract should be amended to remove the yearly restriction on a user's ability to notify Western Power that it seeks to reduce its "contracted capacity" and that Western Power's concerns be addressed, if they are legitimate, by some other means.[331]

Authority's Assessment

1053. Western Power has proposed a variation to the MAC by limiting the number of times a user can reduce its contracted capacity at a particular connection point to once in each period of 12 months. The Authority considers that this is a material variation as a user's ability to reduce capacity has significant commercial implications for the user and Western Power under the access contract.

1054. The Authority notes Alinta's submission that the restriction of a user's right to vary capacity could impair competition and that the proposal is therefore inconsistent with the Code objective. The Authority considers that if there was evidence that users were abusing the right to vary capacity to take advantage of seasonal fluctuations then this might support a variation of the kind proposed by Western Power, having regard to the Code objective. However, the Authority considers that the claimed risk of users abusing the capacity decrease provisions to take advantage of seasonal fluctuations in demand would appear to be low, because of the provisions of ETAC clause 3.5 in relation to declared sent out capacity (**DSOC**) and contract maximum demand (**CMD**).

1055. Western Power's submission recognises that one driver of the proposal is to reduce Western Power's administrative costs but Western Power has not provided information regarding the magnitude of such costs. The Authority therefore gives this less weight to the extent that this would not support the variation to the MAC.

1056. The Authority considers that the proposed variation is inconsistent with the Code objective as it would constrain competition by preventing a user from reducing capacity where an end use customer transfers to a competitor. The Authority notes that the provision for deleting a contracted point (ETAC clause 3.10) does not provide for circumstances where a variation is only needed to adjust for a transferred load.

1057. For the reasons above, the Authority considers that the proposed variation is inconsistent with the Code objective as it does not promote competition upstream or downstream of the network. The Authority also considers the proposal to restrict a user's entitlement to vary capacity more than once in each twelve month period is not reasonable and is therefore not consistent with section 5.3(a) of the Access Code.

Required Amendment 72

Western Power to delete Electricity Transfer Access Contract clause 3.9 (Decrease of Contracted Capacity) and substitute provisions which reproduce Model Access Contract clauses A3.15 & A3.16 without material omission or variation.

[331] Alinta, page 25.

Relocation (MAC clauses A3.19 to A3.24)

Western Power's Proposal

1058. MAC clauses A3.19 to A3.24 provide for the "rotation" of capacity between a user's connection points. No equivalent provision has been included in the ETAC.

1059. Western Power submitted:

> It is to be noted that the proposed SAC does not deal with relocation per se, but the consequence of such activity on capacity requirements. The processes involved in relocation are dealt with separately in the application and queuing policy and the transfer and relocation policy to avoid any duplication or inconsistency arising between the SAC and those policies.[332]

And:

> Relocation has been removed from the SAC and placed in Western Power's transfer and relocation policy, as envisaged by section 5.21 of the Code, to avoid conflict between the contract and the policy.
>
> Relocation is related to the fundamental question of capacity rights. In considering this matter, Western Power considered whether a user that has contracted capacity at one point should have the right to decrease capacity at that point and take up similar capacity at another point, even when there are applicants in the queue seeking that capacity. Western Power believes that such arrangements, if implemented would significantly bias the access regime in favour of existing users and thus not meet the Code objective. Therefore, the transfer and relocation policy states that a user who wants to "relocate" capacity must decrease capacity at the first contracted point in accordance with the contract and increase it at another point in accordance with the contract (effectively, the application and queuing policy).
>
> This means that if an applicant is currently in the queue, and capacity becomes available because of the decrease by the relocating user at a contracted point, then that applicant has first access to that capacity under the first-come, first-served principle. In general, the mechanisms in the capital contributions policy will ensure that costs are shared fairly. However, if there is insufficient network capacity to provide the requested services to both parties, the first-come, first-served principle will apply.[333]

Interested Party Submissions

1060. The Authority has not received any public submissions.

Authority's Assessment

1061. Western Power has proposed an omission from the MAC by excluding the provisions related to a user's ability to relocate contracted capacity. The Authority considers that this is a material omission as it removes the flexibility for users to seek a relocation of capacity between connection points and thereby affecting competition in upstream and downstream markets.

1062. Western Power proposes to depart from the MAC and require a user that wishes to rotate capacity to rejoin the queue in order to overcome the potential for bias against applicants for capacity.

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[332] Access arrangement information, Appendix 10, page 6.

[333] Access arrangement information, Appendix 10, page 11.

1063. The Authority has considered the Code objective and the potential for Western Power's proposal to impede competition by reducing users' flexibility to respond to their customers' relocation requests (i.e. to "follow" their customers) and provide existing applicants for spare capacity with an arbitrary advantage competing for such customers.

1064. Western Power's concern that relocations potentially favour existing users over applicants appears to be inconsistent with the intention of the MAC. Specifically, clause A3.21 refers to relocations in the context of a capacity increase notice or in accordance with the applications and queuing policy. In the view of the Authority, this would necessitate the adoption of the relevant test for a capacity increase notice (i.e. that network augmentation is not required or the facilitation of the relocation will not impede the ability of Western Power to meet the demands of other users or applicants).

1065. The Authority has also had regard to the need for the ETAC to align with the requirements of section 5.21(a) of the Access Code which expressly requires a transfer and relocation policy to permit a user to freely relocate capacity.

1066. The Authority considers that a streamlined process as envisaged under the model applications and queuing policy represents a reasonable balance of the interests of service providers and users.

1067. For the reasons above, and having regard to the MAC, the Authority considers that the proposed omission is not reasonable and is not consistent with the requirements of section 5.3 of the Access Code and the Code objective.

1068. The MAC provides a definition of the term "relocation" for the purposes of the relocation provisions which was omitted from the ETAC. The Authority's draft decision requires consequential amendments.

Required Amendment 73

Western Power to amend the Electricity Transfer Access Contract by reproducing Model Access Contract clauses A3.19 to A3.24 (Relocation) without material omission or variation.

Required Amendment 74

Western Power to amend Electricity Transfer Access Contract clause 1.1 to include a definition of "relocation" which reproduces the definition of that term in the Model Access Contract without material omission or variation.

Deletion of a Contracted Point (ETAC clause 3.10)

Western Power's Proposal

1069. ETAC clause 3.10 makes provision for a user to delete a connection point where the connection point has been transferred under the Customer Transfer Code, added to another ETAC or permanently disconnected. Other than in these

circumstances Western Power may refuse the request. The MAC does not contain an equivalent provision.

1070. Western Power submitted:

> The SAC obliges Western Power to accept a request to delete a contracted point subject to the following conditions.
>
> - For permanent disconnection, the user must provide appropriate notice to allow Western Power time to prepare modifications to its network equipment, and then to effect and test those changes.
> - For deletion of a contracted point that is not to be permanently disconnected, that point must have been transferred to another electricity transfer contract (such as via a customer transfer request), so that at no point can electricity be transferred without being captured under an electricity contract.[334]

Interested Party Submissions

1071. Alinta submitted:

> Under clause 3.10 of the Transfer Contract, the user may give notice to Western Power seeking to delete a "contracted point" from the Transfer Contract. If the user seeks to permanently disconnect facilities and equipment for a "generating plant" at a "contracted point", notice must be given to Western Power at least 3 months before the planned disconnection.[335]

Authority's Assessment

1072. Western Power has proposed an additional provision, which was not provided for in the MAC, by making provision for a user to delete a connection point where the connection point has been transferred under the Customer Transfer Code. The Authority considers that the proposed addition is material as it gives rise to inconsistencies.

1073. The Authority considers that the reasons for the proposed clause may include the intention of Western Power providing for sufficient time in which it can assess any disconnections against the security and safety of the network. Therefore, the proposed notice procedure in relation to permanent disconnection of a connection point would be consistent with section 5.3 of the Access Code and the Code objective.

1074. The Authority considers that the remaining provisions, in circumstances where a customer is, or is to be, transferred to another user, overlap and inconsistencies arise with the provisions of the transfer and relocation policy and the provisions relating to relocation in MAC clauses A3.19 to A3.24.

1075. The Authority has had regard to the MAC and the potential for inconsistency between the proposed ETAC clause 3.10 (except in relation to permanent disconnection) and the relocation provisions which give rise to commercial uncertainty. While Western Power has proposed to vary or delete such provisions as the case may be, the Authority has concluded that Western Power must reproduce MAC clauses A3.19 to A3.24 without material omission or variation.

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[334] Access arrangement information, Appendix 10, page 5.

[335] Alinta, page 25.

1076. For the reasons above, and having regard to the MAC, the Authority considers that the proposed addition is not sufficiently detailed and complete to satisfy the requirements of section 5.3(b) of the Access Code and the Code objective.

Required Amendment 75

Western Power to amend Electricity Transfer Access Contract clause 3.10 (Deletion of a Contracted Point) to confine its operation to the deletion of a connection point by reason of the permanent disconnection of Facilities and Equipment.

Payment on decrease of Contracted Capacity (ETAC clause 3.11)

Western Power's Proposal

1077. ETAC clause 3.11 makes provision for payment of outstanding charges or an additional capital contribution by a user before any reduction of capacity at, or deletion of, a connection point takes effect. The MAC does not contain an equivalent provision.

1078. Western Power submitted:

> The SAC obliges Western Power to accept a request to delete a contracted point subject to the following conditions.
>
> …
>
> - The user must pay any outstanding amounts
>
> The outstanding amounts might be in the form of outstanding charges or an additional contribution, regardless of whether the user or the controller paid the original contribution. This "user pays" principle avoids costs being unfairly passed on to users in general and promotes competition in accordance with the Code objective. It is recognised that users, particularly retailers, will consider the implications of this and therefore may seek in turn to allocate this risk to their end customers.[336]

Interested Party Submissions

1079. Alinta submitted:

> Further, under clause 3.11(a) of the Transfer Contract, on any reduction of the "contracted capacity" or deletion of a "contracted point", Western Power may require a user to pay a capital contribution, regardless of whether a capital contribution has been previously paid before the reduction or deletion takes effect. There is no equivalent provision in the model standard access contract.
>
> Alinta suggests that it is unreasonable to require a user to pay a capital contribution on reduction or deletion of a "contracted point", where a capital contribution has been previously paid. If Western Power has already been paid a capital contribution and has therefore already been compensated for augmenting its network, then it is

[336] Access arrangement information, Appendix 10, page 5.

unacceptable that it be able to require a user to pay a further capital contribution to make a mere contractual adjustment.[337]

Authority's Assessment

1080. Western Power has proposed an additional provision, which was not provided for in the MAC, which requires users to pay Western Power in the event that the capacity is reduced. In the view of the Authority, this is a material addition as it gives Western Power additional discretion to seek revenue from users without providing the reference services agreed to under the access contract.

1081. The proposed clause appears to be directed to mitigating Western Power's commercial risk of a user failing to pay outstanding contractual charges. However, provisions have elsewhere been included in the ETAC relating to outstanding charges.

1082. The Authority notes Alinta's submission that the requirement to pay a further capital contribution is not reasonable. The requirement to pay a capital contribution in such a situation is inconsistent with section 5.3 of the Access Code as, in the view of the Authority, it is not reasonable to require a capital contribution in the event of a contractual adjustment. The Authority does, however, recognise that the proposed clause appears to be directed at mitigating Western Power's commercial risk.

1083. A capital contribution relates to augmentation to the network, and the definition of an augmentation in the Access Code relates to an increase in the capability of the network, not a decrease in utilisation of the network. Therefore, the Authority considers that Western Power should not be entitled to a payment in the form of a capital contribution for a decrease in a user's contracted capacity.

1084. For the reasons above, and having regard to the MAC, the Authority considers that the proposed clause is not reasonable and is therefore inconsistent with section 5.3(a) of the Access Code.

Required Amendment 76

Western Power to delete Electricity Transfer Access Contract clause 3.11 (Payment on decrease of Contracted Capacity).

When Western Power may request information (ETAC clause 4.2; MAC clause A3.59)

Western Power's Proposal

1085. MAC clause A3.58, which is reproduced without material variation or omission in ETAC clause 4.1, provides for a service provider, acting as a reasonable and prudent person, to request forecast information in relation to a connection point from a user. Under MAC clause A3.59 such a request may be made more than once in a 12 month period only in emergency situations. ETAC clause 4.2 varies

[337] Alinta, page 25.

that provision to allow Western Power to make more than one request in any 12 month period where a forecast materially differs from actual performance and requires revision in Western Power's opinion as a reasonable and prudent person.

Interested Party Submissions

1086. Office of Energy submitted:

> Western Power has extended the situations in which it may make a request for information (i.e. if the User's actual performance differs substantially from its forecast).[338]

1087. Newmont submitted:

> Clause 4 The User Must Provide Forecast Information - Why should this Clause provide Western Power with the ability to request load or generation data beyond any requirement of the IMO, on a Market Participant?[339]

Authority's Assessment

1088. Western Power has proposed a variation to the MAC by providing Western Power with the discretion to require information, amongst other things, where a forecast materially differs from the actual consumption. The Authority considers the proposed variation is material as it exposes users to more frequent requests from Western Power for forecast information, rather than annually as provided in the MAC.

1089. The Authority considers that for the purposes of network planning the annual reporting requirement should satisfy Western Power's requirements. However, it is noted that Western Power may require current, accurate information from users where a forecast materially differs from actual performance on a more frequent basis, thereby ensuring that any work undertaken is most likely to aid the efficient investment in, and utilisation of, the network in accordance with the Code objective.

1090. The Authority is satisfied that users will not be unnecessarily burdened by the proposed variation as it only applies where a "material" variation in forecasts occurs, and requires Western Power to act as a "reasonable and prudent person".

1091. In relation to Newmont's submission, the Authority considers that the information requirements of both the IMO and Western Power differ and are used for different purposes. As such, the Authority is not satisfied that the information provided to the IMO would be sufficient for Western Power's purposes.

1092. For the reasons above, and having regard to the MAC, the Authority considers that the proposed clause is reasonable and consistent with the Code objective.

[338] Office of Energy, page 11.

[339] Newmont, page 3.

User must nominate Controller (ETAC clause 6.1(a); MAC clause A3.36)

Western Power's Proposal

1093. ETAC clause 6.1(a) provides for a designated controller for each connection point under the contract. Under the MAC a nomination is only required at entry points where the installed capacity exceeds 30 KVA and a parameter which may be specified at exit points (left for completion in the access contract). Footnote 29 to the MAC provides as follows in relation to the completion of the *[x]* in relation to an exit point:

> To be completed – the test for when an exit point needs a designated controller. To be inserted in the access arrangement and approved by the Authority under Chapter 4. To the extent that the Authority so approves, the access arrangement may leave this to be inserted in the access contract by agreement between the parties or arbitrated award.

1094. Western Power submitted:

> The relationship between the user and a controller has been made clear in the SAC. For each contracted point, the user must nominate a controller. If the user is the controller, then the user must comply with the connection provisions. If the user is not the controller, then the user must procure compliance from the controller, unless the controller has entered into a connection contract with Western Power.
>
> …
>
> Western Power retains the right to contract with any person, including a controller. The integrity of connected facilities and equipment is critical to network system reliability and security yet Western Power has little opportunity to mitigate the risk of damage or failure and the consequences to users in general. Consequently, it is essential that risk be allocated to users or controllers as appropriate, and that the rights and obligations of the user, the controller and Western Power are clear to enable the safe and reliable management of the network.[340]

Interested Party Submissions

1095. Office of Energy submitted:

> Western Power requires a Controller for each contracted point, rather than only those contracted points at which the capacity exceeds a prescribed rate. The requirement to specify a Controller was of great concern to Users who were confused about the role of Controllers and Western Power's previous requirements to specify them.
>
> This was one of the principal reasons for splitting the Technical Compliance Contract out of the MAC Access Contract. If a Controller is required then they should be a signatory to the Technical Compliance sections. As a rule, unless there is a pressing need to do otherwise, there should only be one counterparty to Western Power for each obligation.[341]

1096. Perth Energy submitted:

> We understand this clause to require that every exit point supplied by a retailer must have a nominated Controller (clause 6.1) and that where the retailer is not the User, the retailer must ensure that the Controller complies with the obligations set out in

[340] Access arrangement information, Appendix 10, page 6.

[341] Office of Energy, page 12.

the contract between Western Power and the retailer (clause 6.2). Further, if the Controller fails to comply with the obligations, then the retailer is in breach of the contract and is liable for and must indemnify Western Power against any consequent Direct Damage.

We note that The Model Standard Access Contract (MSAC) clause A3.36(b) provides for Western Power to propose circumstances (denoted by the parameter "x") in which a Controller must be nominated in respect of Exit Points. [It therefore appears that Western Power has, in effect, proposed that "x" includes all circumstances, and thereby captures all customers no matter how small. This represents a major change from the present requirement in which nomination of a Controller is required for only large loads.] Moreover, we note that clause A3.62 of the MSAC provides that if 3rd parties cause the user to breach the technical rules then, subject to the retailer not having been negligent and having behaved as a reasonable and prudent person, the User is not in breach of the contract and is not liable for any breach of the technical rules.

On this basis, we object to Western Power's proposals and request the ERA to require Western Power to adhere to the provisions of the access code, utilising a reasonable definition of "x". We propose that the definition of "x" should conform to existing practice.[342]

1097. Perth Energy subsequently provided information relevant to the value of "x" for exit points, namely that:

- Perth Energy supplies customers up to around 1,500 kVA and none of them have controllers.
- Perth Energy perceives that 5,000 kVA customers do not have a controller.[343]

Authority's Assessment

1098. Western Power has proposed a variation to the MAC which requires all users to nominate a controller for all contracted points. The Authority considers that the variation is material as it imposes a substantial additional notification requirement on users.

1099. Under the MAC, the obligation to nominate a controller for an entry point only applies when the installed capacity exceeds 30 KVA. In such cases the intention of the MAC is that the controller should undertake technical compliance and Western Power has notice of the identity of the controller and may object to their nomination. Where installed capacity does not exceed 30 KVA then the user has no nomination obligation and Western Power has no right to notice of the user's arrangements or other rights regarding technical compliance issues. The threshold has been set in the MAC after industry consultation by reference to installed capacity which would have the potential to be a disturbing load.

1100. While it is understood that Western Power's proposal is to ensure that it has information about who to contact for each connection point in situations such as emergencies, no evidence has been advanced by Western Power as to why it is necessary by reference to the Code objective for it to be notified where installed capacity is less than 30 KVA at an entry point. Conversely, the Authority supports the MAC intention of requiring nomination of designated controllers for entry points only where the transfer exceeds 30 KVA.

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[342] Perth Energy, page 2.

[343] Email from Perth Energy to Authority, 15 November 2005.

1101. In relation to exit points Western Power has proposed that there be no threshold (i.e. the "*[x]*" referred to in the MAC would effectively be zero). The effect of this would be that each and every end user would be required to nominate as a controller. However, the approach adopted by the MAC in relation to entry points would suggest that the intent of the MAC in relation to exit points is also to require nomination of a controller in those cases where installed capacity at the exit point has the potential to be a disturbing load. The proposal is not reasonable in that it would impose a substantial additional notification requirement upon all users in relation to each and every one of their end use customers, and would require all end users to undertake obligations of a controller where there is no practical need for them to do so. The Authority considers that the onus is on Western Power to nominate a reasonable threshold having regard to the need for Western Power's network to be protected from technical compliance risk.

1102. The Authority's assessment based upon evidence before it is that in the case of exit points a reasonable level would be likely to be significantly above 30 KVA given different considerations which apply at exit points (as opposed to entry points) in relation to network disturbance. The Authority seeks comment from interested parties in relation to what would constitute a reasonable threshold for an exit point.

1103. The Authority also acknowledges that the variable for an exit point may be a test other than a capacity threshold and welcomes submissions on alternative options.

1104. For the reasons above, and having regard to the MAC, in relation to entry points the Authority considers that the proposal is inconsistent with the Code objective and section 5.3(a) of the Access Code. In relation to exit points, for the reasons above, and having regard to the MAC, the Authority considers that the proposal for completion of the "*x*" parameter in accordance with the MAC provision is not reasonable and is inconsistent with the Code objective.

Required Amendment 77

Western Power to amend Electricity Transfer Access Contract clause 6.1 (User must nominate Controller) to reproduce Model Access Contract clause A3.36(a) without material omission or variation and Electricity Transfer Access Contract clause 6.1 to be amended to specify a reasonable test for when an exit point needs a designated controller.

Where the User is not the Controller (ETAC clause 6.2(a); MAC clause A3.38)

Western Power's Proposal

1105. ETAC clause 6.2 specifies the provisions of the ETAC in respect of which the user must procure a designated controller's compliance. The clause differs from the related clause in the MAC (clause A3.38) by:

- not requiring the user to procure compliance with the notice provisions in ETAC clause 34.1 (MAC clause A3.38(b) requires the user to procure such compliance);

- requiring the user to procure compliance with certain provisions of the ETAC (clauses 12, 15, 16 and 24) with which the MAC does not require the user to procure compliance; and
- requiring the user to procure such compliance "unconditionally".

Interested Party Submissions

1106. Office of Energy submitted:

> Western Power has increased the number of obligations a User/Controller has to comply with (i.e. technical characteristics of facilities and equipment, curtailment, directions from system operator, and removal of equipment). In addition, clause 6.2(a) requires that the Controller complies with them "unconditionally". A qualification has furthermore been added stating that compliance is only required "to the extent that such compliance is reasonably necessary for the parties to satisfy their obligations under the SAC [Standard Access Contract]".
>
> As the controller owns or operates the equipment, it appears reasonable to require the controller to also comply with matters such as direction from the system operator, or the removal of equipment.
>
> The requirement to unconditionally procure compliance with the specified clauses is stricter than the current obligation under the MAC Access Contract.[344]

1107. Western Power Generation submitted:

> The ERA should consider why the list in clause 6.2(a) of the ETAC needs to be longer than the list in clause A3.38 of the MSAC.32.[345]

Authority's Assessment

1108. Western Power's proposal requires a user to procure "unconditional" compliance with specified obligations when reasonably necessary to satisfy contractual obligations, whereas the contrasting position under the MAC is that compliance need not be procured unconditionally. Accordingly, the Authority considers that the variation is material as it extends the obligation for a user to procure a controller's compliance.

1109. Having regard to the MAC, the Authority considers that the proposed variation is inconsistent with section 5.3(b) of the Access Code as there is no clarity as to actions necessary to procure compliance "unconditionally". The provision does not provide sufficient detail to form the basis of a commercially workable contract. The Authority considers that the additional requirement to procure unconditional compliance is not reasonable, having regard to the MAC.

Required Amendment 78

Western Power to amend Electricity Transfer Access Contract clause 6.2(a) (Where the User is not the Controller) to delete the word "unconditionally".

[344] Office of Energy, page 12.

[345] Western Power Generation, page 12.

User must satisfy service provider of its arrangements with designated controller (ETAC clause 6.2(b); MAC clause A3.39(a))

Western Power's Proposal

1110. ETAC clause 6.2(b) contains provisions requiring the user to satisfy Western Power of its arrangements with the designated controller. Under related MAC clause A3.39(a) the obligation is excluded if the service provider has direct contractual arrangements with the controller in relation to technical compliance matters. Under ETAC clause 6.2(b) this exclusion has been omitted.

Interested Party Submissions

1111. Office of Energy submitted:

> Under Electricity Transfer Access Contract, the fact that the Controller has entered into a Connection Access Contract with Western Power does not necessarily free the User from its obligation to prove to Western Power that the User has ensured that the Controller will comply with the specified clauses. This is different from the MAC Access Contract.
>
> If there is a Connection Access Contract between Western Power and the Controller, this should satisfy the requirement on the User to prove to Western Power that the User has ensured that the Controller will comply with the specified clauses.[346]

Authority's Assessment

1112. Western Power has proposed a variation to the MAC which requires all users to provide evidence of compliance by controllers. The Authority considers that the variation is material as, unlike the MAC, the user is not exempted from doing so in the event of a direct contractual relationship between the service provider and the controller.

1113. MAC clause A3.39(a) excludes any obligation of the user to provide information in circumstances where the service provider has a direct contractual relationship with a controller and therefore the ability itself to police compliance by the controller with relevant obligations. The absence of this exclusion is considered by the Authority to impose onerous obligations as it requires users to provide information in all circumstances, rather than only when Western Power does not have a contractual relationship with the controller.

1114. For the reasons above, and having regard to the MAC, the proposed variation is not reasonable and is therefore inconsistent with section 5.3(a) of the Access Code.

[346] Office of Energy, page 12.

Required Amendment 79

Western Power to amend Electricity Transfer Access Contract clause 6.2(b) (User must satisfy service provider of its arrangements with designated controller) to reproduce Model Access Contract clause A3.39(a) without material omission or variation.

Curtailment where Western Power is not satisfied of compliance by controller (ETAC clause 6.2(c); MAC clause A3.39(b))

Western Power's Proposal

1115. ETAC clause 6.2(c) provides for Western Power to curtail a user's services if it is not satisfied of compliance by a designated controller with relevant technical requirements. The clause is different to related MAC clause A3.39(b), in that ETAC clause 6.2(c) omits a provision for the user to avoid curtailment, or further curtailment, upon the controller agreeing in writing with the service provider to be bound by the relevant provisions of the ETAC.

Interested Party Submissions

1116. The Authority has not received any public submissions.

Authority's Assessment

1117. Western Power has proposed a variation to the MAC which allows Western Power to refuse to commence services (or curtail services) in certain circumstances. In the view of the Authority, the variation is material as it removes an alternative under the MAC for a user to avoid curtailment.

1118. Western Power's proposal omits one way in which a user may avoid further curtailment (i.e. by its designated controller entering into a written contract with Western Power under which the designated controller will comply with the matters in MAC clause A3.38). The Authority considers that it is reasonable for a user to be entitled to avoid curtailment in the manner set out in MAC clause A3.39(b), and no reasons have been advanced justifying why the variation would otherwise be reasonable.

1119. For the reasons above, and having regard to the MAC, the proposed variation is not reasonable as it removes a viable alternative for a user to avoid curtailment. Therefore the proposed clause is not consistent with section 5.3(a) of the Access Code.

Required Amendment 80

Western Power to amend Electricity Transfer Access Contract clause 6.2(c) (Curtailment where Western Power is not satisfied of compliance by controller) to reproduce Model Access Contract clause A3.39(b) without material omission or variation.

Tariffs (ETAC clause 7.1; MAC clause A3.40)

Western Power's Proposal

1120. MAC clause A3.40 makes provision in relation to tariffs and charges to be paid by a user. The MAC provides that the access contract retain only one of the two options, Option A or Option B, "whichever is applicable". Footnote 34 to the Access Code explains the intent of this provision as follows:

> Unless the Authority considers that a different approach will better achieve the Code objective, the standard access contract must offer UserCo the option, at the time it enters into the contract, to make a once-off election for the term of the contract as to whether it will pay the reference tariff as in effect from time to time (Option A), or whether it will lock in the reference tariff in effect at the time of contracting, to be escalated at a percentage of CPI (Option B). If Option A is chosen, definitions need to be added to clause A3.2.

1121. ETAC clause 7.1 includes a varied version of Option A and does not include the option for the user to elect to adopt Option B.

1122. Western Power advised:

> It is proposed that where Reference Tariffs exist, i.e. in a published Price List, then the objectives of the Code are best met when all similar users pay the same tariff, with price certainty provided by the terms of tariff adjustment approved by the ERA and included in Western Power's access arrangement.[347]

Interested Party Submissions

1123. The Authority has not received any public submissions.

Authority's Assessment

1124. Western Power has proposed a variation to the MAC which combines the two tariff options offered under the MAC. The Authority considers that the variation is material as it removes a choice for a user in relation to the applicable tariffs and charges users are required to pay under an access contract.

1125. The MAC provides for the user to elect either Option A or Option B unless the Authority considers that "a different approach will better achieve the Code objective". Western Power's proposal does not provide for the user to elect options for tariffs and charges.

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[347] Email from Western Power to Authority, 22 November 2005.

1126. The reason for the variation which has been advanced by Western Power is that providing no option to users creates certainty. However, this does not demonstrate that the omission achieves the Code objective or otherwise is consistent with section 5.3 of the Access Code. The Authority considers that the inclusion of two options in the access arrangement is consistent with the Code objective and is reasonable by providing flexibility and choice in the pricing which a user may take up in the interests of competition. The Authority has not been provided with any submissions which provide a basis to conclude that it would be reasonable or consistent with the Code objective not to include Option B. It is further noted that the two options provide for different mechanisms for tariff adjustments (i.e. in the case of Option A, where a price list exists and in the case of Option B, where there is no applicable price list[348]).

1127. For the reasons above, and having regard to the MAC, the omission of an equivalent to Option B as set out in MAC clause 7.1 is inconsistent with sections 5.3(a) and (b) of the Access Code as it is not reasonable to have an access contract that removes a viable option for a user to elect under their access contract, nor would the contract be sufficiently detailed and complete.

Required Amendment 81

Western Power to amend Electricity Transfer Access Contract clause 7.1 (Tariffs) to include provisions which reproduce Option B in Model Access Contract clause A3.40 without material omission or variation.

Recovery of tariff reduction as an overpayment (ETAC clause 7.1; MAC clause A3.40(b), Option A)

Western Power's Proposal

1128. Under Option A in MAC clause A3.40(b), the user is entitled to recover a price reduction in a published price list as an overpayment. The related provision in ETAC clause 7.1 omits this entitlement.

1129. Western Power submitted:

> Similarly, no Price List can be published under the Code unless that publication is pursuant to an approved access arrangement, so the provision relating to these events, allowing the user to claim an overpayment, has not been adopted in the SAC.[349]

Interested Party Submissions

1130. The Authority has not received any public submissions.

[348] "Price list" is defined in the Access Code.

[349] Access arrangement information, Appendix 10, page 7.

Authority's Assessment

1131. Western Power has proposed a variation to the MAC which removes the requirement to correct for overpayment of tariffs. The Authority considers that the variation is material as it may deprive a user of a right to financial reimbursement of funds paid over without justification, and without fault on the part of the user.

1132. Option A in MAC A3.40(b)(i), consistent with section 8.5 of the Access Code, anticipates circumstances in which a price list could not be approved by the start of a pricing year and provides for users not to be penalised because a price reduction may not be finalised. If prices are reduced then the user receives reimbursement of an overpayment. Option A in MAC A3.40(b)(ii) provides for recovery of an overpayment by a user where a service provider publishes a price list not in accordance with an approved access arrangement.

1133. The reasons given by Western Power for removing a user's entitlement to recover a price reduction is that the second situation of overpayment referred to above (where a service provider publishes a price list not in accordance with an approved access arrangement) cannot arise. The Authority does not accept this submission as it is inconsistent with the operation of chapter 8 of the Access Code.

1134. For the reasons above, and having regard to the MAC, the omission is considered to be not reasonable and inconsistent with section 5.3(a) of the Access Code.

Required Amendment 82

Western Power to amend Electricity Transfer Access Contract clause 7.1 (Recovery of tariff reduction as an overpayment) to include provisions which reproduce Option A in Model Access Contract clause A3.40(b)(ii) without material omission or variation.

Indexation of tariffs determined under ETAC (ETAC clause 7.1(b))

Western Power's Proposal

1135. ETAC clause 7.1(b) provides for indexation of a user's applicable tariffs which are to be determined under the ETAC. There is no equivalent provision in MAC clause A3.40, Option A, which relates exclusively to prices in a published price list.

1136. In response to a request for clarification, Western Power advised the Authority as follows:

> [ETAC clause 7.1(b)] is a particular reference to the Connection Price component of the TRT1 and TRT2 tariffs designated with a * in sections 3.1.2 and 3.2.2 of the Price List, where a special note explains that "… the charge is not published but is determined subject to the specific connection arrangements.[350]

[350] Email from Western Power to Authority, 22 November 2005.

Interested Party Submissions

1137. The Authority has not received any public submissions.

Authority's Assessment

1138. Western Power has proposed an additional provision, which was not provided for in the MAC, by providing for certain tariffs to be adjusted based on CPI. The Authority considers that the addition is material as it confuses the operation of price lists which are approved on an annual basis and not subject to additional escalation.

1139. The Western Power proposal assumes the approval by the Authority of a price list which leaves elements of prices for reference services to be negotiated on a case by case basis. The ETAC is a SAC for reference services. Therefore, prices must be reference tariffs approved in a price list and may not include prices left for negotiation. There is therefore no scope for the indexation provisions proposed by Western Power to operate.

1140. For the reasons above, and having regard to the MAC, the Authority considers that it is not reasonable to include provisions in a SAC which can have no operation, nor would a SAC with such provisions included be sufficiently detailed and complete in the manner required by section 5.3(b) of the Access Code.

Required Amendment 83

Western Power to delete Electricity Transfer Access Contract clause 7.1(b) (Indexation of tariffs determined under ETAC) and consequential amendments to be made to Electricity Transfer Access Contract clause 7.1(e).

Charges (ETAC clause 7.2; MAC clause A3.41)

Western Power's Proposal

1141. MAC clause A3.41 provides the obligation of the user to pay tariffs for reference services supplied under a SAC. ETAC clause 7.2 proposed by Western Power is wider and includes an obligation on the user to pay to Western Power any other charge (i.e. in addition to the reference tariff) applicable to the provision of each service, as published, or agreed, or otherwise required by law.

1142. Western Power submitted:

> Two other changes have been made in the SAC to allow for tariffs that, under the Price List are to be adjusted under the contract (such as a connection charge) and to allow Western Power to recover non-tariff charges. The latter might consist of billing administration charges, meter reading charges, customer transfer charges and similar applicable fees.[351]

[351] Access arrangement information, Appendix 10, page 7.

Interested Party Submissions

1143. Office of Energy submitted:

> Western Power has inserted [in ETAC 7.2(b)] a right to apply charges in addition to those specified in its price list. (e.g. billing administration charges, meter reading charges, customer transfer charges, etc).[352]

1144. Alinta submitted:

> Alinta submits that clause 7.2(b) of the Transfer Contract constitutes a material variation from the model standard access contract and is unreasonable in its current form as it does not specify with certainty what kind of other charges will apply to the Transfer Contract nor in what circumstances they may be applicable, especially in so far as Western Power may simply publish other charges.
>
> Further, Western Power has not provided the prices associated with these other charges. Therefore, the Transfer Contract is uncertain as users do not know the extent of the other charges that apply under the contract. As such, Alinta considers that clause 7.2 of the Transfer Contract does not comply with clause 5.3(b) of the Code as it is not sufficiently detailed to form the basis of a commercially workable access contract and does not enable a user or applicant to determine the value represented by the reference service at the reference tariff.
>
> Alinta submits that it is consistent with the scheme established by the Code for Western Power to seek to apply, in connection with the provision of reference services, charges that are additional to the reference tariffs for those reference services. Alinta considers that the definitions of the terms "access contract", "reference service", "reference tariff" and "tariff" in section 1.3 of the Code indicate that a reference tariff for a reference service, as applied in a standard access contract, should include all – not merely some – of the criteria that determine the charge that is payable by a user to Western Power. It seems inconsistent with the operation of those definitions and the Code objective for Western Power to be permitted to earn some revenue by means of an unregulated tariff mechanism that applies to a reference service (such as clause 7.2(b) of the Transfer Contract).[353]

Authority's Assessment

1145. Western Power has proposed a variation to the MAC which introduces a requirement for users to pay additional charges to Western Power. The Authority considers that the variation is material as it broadens the discretion of Western Power to require payment of charges otherwise not agreed to under a SAC.

1146. ETAC clause 7.2(b) obliges users to pay charges for reference services in addition to the reference tariff. There is no basis for such charges, by definition, to be included in a SAC, which is expressed as being a contract for a reference service (which has an applicable reference tariff).

1147. The Authority acknowledges the concerns raised by Alinta. A SAC is designed to provide users with the information necessary to understand the terms and conditions of an access contract, including the determination of value assigned to each reference service. Further, the words "any other charge applicable to the provision of each Service" in proposed ETAC clause 7.2(b) is not sufficiently detailed or complete to satisfy the Access Code requirements.

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[352] Office of Energy, page 13.

[353] Alinta, page 22.

1148. For the reasons above, and having regard to the MAC, the Authority considers that it is not reasonable to include the proposed variation and is therefore inconsistent with section 5.3(a) of the Access Code. Further, ETAC clause 7.2(b) is not sufficiently detailed and complete in order to determine the value of the service as required under section 5.3(b) of the Access Code.

Required Amendment 84

Western Power to delete Electricity Transfer Access Contract clause 7.2(b) (Charges).

Payment of standing charges during Western Power's Force Majeure Event (ETAC clause 7.3; MAC clause A3.42)

Western Power's Proposal

1149. MAC clause A3.42(a) provides that the user's obligation to pay charges during a force majeure event is confined to "standing charges". MAC clause A3.42(b) provides for payment of 10 per cent of standing charges during a force majeure event. ETAC clause 7.3(a) also provides for payment of 10 per cent of charges during a force majeure event, however, there is no equivalent of MAC clause A3.42(a), and therefore the requirement to pay 10 per cent applies to all charges and not only to "standing charges".

1150. Western Power submitted:

> The defined term "standing charges" from the MAC has not been adopted, as all charges will be applicable under a force majeure event, rather than just a selection of them.[354]

Interested Party Submissions

1151. Western Power Generation submitted:

> Clause 7.3(a) of the ETAC needs to make it clear that "Charges" applies only to charges which are payable regardless of usage.[355]

1152. Newmont submitted:

> Clause 7.3 Charges During Western Power's Force Majeure Event – It is unclear why the User must continue to pay 10% of the Charges for the Affected Service when Western Power has declared a Force Majeure Event, and the User has been relieved of its payment obligation under Clause 7.1.[356]

[354] Access arrangement information, Appendix 10, page 7.

[355] Western Power Generation, page 12.

[356] Newmont, page 2.

1153. Alinta submitted:

> Clause 7.3 of the Transfer Contract is reasonably equivalent to clause A3.42 of the model standard access contract. However, the Transfer Contract provides an additional requirement that the user must be unable to use the affected service "solely because of the Force Majeure Event" in order to be relieved of its obligations and pay a reduced level of the "charges". The model standard access contract provides that if the affected service is unavailable for 2 days due to a force majeure event, then the user is relieved of its obligations and instead must pay 10% of the standing charges.[357]

Authority's Assessment

1154. Western Power has proposed a variation to the MAC by redefining the costs that may be recovered by Western Power during a force majeure event. The Authority considers that the variation is material as it broadens the discretion of Western Power to recover additional costs from a user.

1155. Western Power cannot charge users during a force majeure event based upon usage or volume because the effect of force majeure is to prevent the provision of services. It is therefore not reasonable for Western Power to say that "all charges will be applicable under a force majeure event". The purpose of MAC clause A3.42(a), which has been omitted, is to define the non-usage based charges, 10 per cent of which are to be payable during the force majeure event.

1156. For the reasons above, and having regard to the MAC and submissions advanced by interested parties, the Authority regards the variation as not reasonable and inconsistent with section 5.3 of the Access Code and the Code objective.

Required Amendment 85

Western Power to amend Electricity Transfer Access Contract clause 7.3 (Charges during Western Power's Force Majeure Event) to reproduce Model Access Contract clause A3.42(a) without material omission or variation.

Charges during Western Power's Force Majeure Event (ETAC clause 7.3(a)(ii); MAC clause A3.42(b))

Western Power's Proposal

1157. Under ETAC clause 7.3(a)(ii) a user will only be relieved of payment obligations if the user's inability to use the service is "solely" due to the force majeure event. There is no such restriction in the equivalent clause in the MAC clause A3.42(b)

[357] Alinta, page 23.

Interested Party Submissions

1158. Alinta submitted:

> … that the proposed clause 7.3(a)(ii) is wholly unreasonable and submits that the provision should be deleted. Even if it were to be retained, Alinta would consider that it is inflexible to include the word "solely" in clause 7.3(a)(ii). Alinta submits that the wording of clause A3.42 of the model standard access contract is a reasonable and commercially workable term and should be applied.[358]

1159. Western Power Generation submitted:

> Clause 7.3(a)(ii) is not workable – the force majeure event in question is acting on Networks, not the user – and in any event it duplicates the opening words of clause 7.3(a).[359]

Authority's Assessment

1160. Western Power has proposed a variation to the MAC which adds in a requirement for the user to be unable to use a service solely because of a force majeure event in order to be relieved of payment obligations. In the view of the Authority, the variation is material as it adds to a user's obligations.

1161. Under both the MAC and the ETAC force majeure is defined as an event beyond the control of the user. Therefore, there are no circumstances in which a user's actions could contribute to a force majeure event as defined. The proposed introduction of the word "solely" is, therefore, uncertain in operation.

1162. The Authority considers that the presence of the proposed provision could introduce uncertainty regarding the scope of the force majeure provisions which would be inconsistent with the requirement of section 5.3(b) of the Access Code that the SAC be sufficiently detailed and complete. Further, the introduction of the "sole cause" requirement would create a discrepancy between the provisions relating to suspension of obligations during force majeure (where there is no such requirement), and payment obligations during force majeure.

1163. For the reasons above, and having regard to the MAC, the Authority considers that the proposed variation is inconsistent with section 5.3(b) of the Access Code.

Required Amendment 86

Western Power to amend Electricity Transfer Access Contract clause 7.3(a)(ii) (Charges during Western Power's Force Majeure Event) to delete the word "solely".

[358] Alinta, page 23.

[359] Western Power Generation, page 12.

User contribution to force majeure event (ETAC clause 7.3(b))

Western Power's Proposal

1164. ETAC clause 7.3(b) provides that the force majeure provisions will have no operation where the user has contributed to the force majeure event, or would not have been ready, willing or able to make use of the service but for the force majeure event. There is no equivalent clause in the MAC.

1165. Western Power submitted:

> Also, in the SAC, it is now made clear that the user must pay the Charge (including tariff charges, and any other applicable charges) for the provision of each Service even if the user is not ready, wiling and able to make use of the Affected services during the relevant period. Western Power believes that this is in any event the intent of the MAC but has sought to make this more explicit.[360]

Interested Party Submissions

1166. Western Power Generation submitted:

> The "ready, willing and able" test in clause 7.3(b) adds another hurdle for the user to surmount and is not logical – if Networks has failed to provide the service, why should it be paid?[361]

1167. Alinta submitted:

> … that it is unreasonable to include clause 7.3(b) in the Transfer Contract. Western Power should not be able to continue to earn full revenue when it is not able to perform its obligations by relying on a mechanism that requires users to pay the full amount of the charges because they were for some reason not ready, willing and able to make use of the affected service. Additionally, Alinta suggests that it is unreasonable to require a user to pay full charges on the ground that it contributed to, or caused, the force majeure event, if no regard is paid to the extent to which the user caused or contributed to the event. Further, clause 7.3(b) of the Transfer Contract is subjective, unusual and provides wide discretion to Western Power.[362]

Authority's Assessment

1168. Western Power has proposed an additional provision, which was not provided for in the MAC, dealing with a user's contribution to a force majeure event. The Authority considers that the addition is material as it broadens the application of the force majeure provisions.

1169. Under both the MAC and the ETAC force majeure is defined as an event beyond the control of the user. Therefore, there are no circumstances in which a user's actions could contribute to a force majeure event. The proposed provisions are, therefore, uncertain in operation.

1170. The Authority notes the concerns raised by interested parties regarding the appropriateness of a service provider receiving revenue without providing a service.

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[360] Access arrangement information, Appendix 10, page 7.

[361] Western Power Generation, page 12.

[362] Alinta, page 23.

The Authority considers that the inclusion of the additional clause adds uncertainty to the access contract by introducing a requirement that a user be "ready, willing and able" to take services.

1171. For the reasons above, and having regard to the MAC, the Authority considers that the addition would not be reasonable, nor would the ETAC be sufficiently detailed and complete and therefore is inconsistent with the requirements of sections 5.3(a) and (b) of the Access Code.

Required Amendment 87

Western Power to delete Electricity Transfer Access Contract clause 7.3(b) (User contribution to force majeure event).

Disputed invoices (ETAC clause 8.4; MAC clause A3.47)

Western Power's Proposal

1172. MAC clause A3.47 provides that where an amount is paid under a disputed invoice which is subsequently found not to have been payable, then interest at the discounted rate is to be paid on the funds to be reimbursed, to compensate the payer for the opportunity cost of the funds.

1173. The ETAC contains a related clause, clause 8.4, however the rate of interest adopted is the prescribed rate (a penalty rate of 3 per cent above the equivalent to the discounted rate), rather than the discounted rate.

Interested Party Submissions

1174. The Authority has not received any public submissions.

Authority's Assessment

1175. Western Power has proposed a variation to the MAC which results in refunds under disputed invoices incurring a penalty rate. The Authority considers that the variation is material as it adds to the potential liabilities of parties to the SAC.

1176. While the MAC provides for interest to be paid to a party in a situation of disputed invoices at the "discounted rate", the Authority accepts as reasonable a situation where the payer receives interest at a penalty rate where funds are paid over pending resolution of a dispute about an invoice which is subsequently upheld. The Authority considers that such a penalty rate acts as an incentive to ensure that disputes are corrected or resolved in a timely manner.

1177. Having had regard to the MAC, and as the variation affects both parties to an access contract, the Authority considers the proposed variation is reasonable and consistent with section 5.3(a) of the Access Code.

Under and over payments (ETAC clause 8.5; MAC clause A3.48)

Western Power's Proposal

1178. MAC clause A3.48(b) provides that where an amount is paid over in error, then interest at the discounted rate is to be paid on the funds to be reimbursed, to compensate the payer for the opportunity cost of the funds. The ETAC contains related clause 8.5(b), however the rate of interest adopted is the prescribed rate (a penalty rate of 3 per cent above the equivalent to the discounted rate), rather than the discounted rate.

Interested Party Submissions

1179. The Authority has not received any public submissions.

Authority's Assessment

1180. Western Power's proposal varies from the MAC by adding in the payment of under and over payments at a penalty rate, denoted by the "prescribed rate". The Authority considers that the variation is material as it results in the payer paying interest at a rate higher than contemplated under the MAC.

1181. The Authority considers that the application of a penalty interest rate to under and over payments is reasonable as it provides incentives for the correct payment of invoices.

1182. For the reason above, having had regard to the MAC, and as the variation affects both parties to an access contract, the Authority considers the proposed variation is reasonable and consistent with section 5.3(a) of the Access Code.

Security for Charges and Contributions (ETAC clause 9(a); MAC clause A3.51(a))

Western Power's Proposal

1183. Under MAC clause A3.51, the service provider is required to make a determination in respect of the user's resources to assess whether there is any risk that the user will be unable to meet its obligations. By contrast, under the ETAC clause 9(a), the User must provide evidence that it has a credit rating of at least a specified standard or Western Power can require security.

1184. Western Power submitted:

> Western Power's experience is that an approach to assessing credit risk and the associated need for security on an individual case-by-case basis may lead to stranded costs. This arises for four main reasons.
>
> - Western Power Networks is not equipped to conduct credit vetting, which requires a specialised skill-set.
> - The cost of outsourced credit vetting for all circumstances is prohibitive.
> - A case-by-case approach to credit vetting can lead to accusations of bias or discrimination.
> - Alternative forms of security, such as trust accounts, have been proven to be insecure.

In combination, these factors may result in stranded or inefficient costs that must be borne by all users.

The SAC seeks to balance the costs of complexity with flexibility and comprises the following key components with regard to security for network charges:

- There is no need to provide security if the user can provide evidence of either a BBB Standard & Poor's rating or better, or a Baa Moody's rating or better. The ratings selected are in line with those required by NEM network service providers.
- A parent company guarantee is acceptable if the user can provide evidence that the parent has a credit rating of either a BBB Standard & Poor's rating or better, or a Baa Moody's rating or better.
- Otherwise, security is required which is either in the form of an appropriate bank guarantee, or equivalent financial instrument, or a cash deposit.

In each case, the security must be adequate to meet two month's charges. …[363]

Interested Party Submissions

1185. Office of Energy submitted:

Western Power has [in ETAC 9(a)] substantially amended the security provisions. Under the MAC Access Contract, a Service Provider may only require security if the Service Provider determines that the user's "technical or financial resources are such that a reasonable and prudent person would consider there to be a material risk that the user would be unable to meet its obligations under the contract." Under Western Power's Electricity Transfer Access Contract, Western Power may only require a security deposit if the User does not provide evidence that its credit rating is at least BBB (Standard & Poor) or Baa (Moody's). Western Power states that its proposed standards are in line with National Electricity Market.

There are some substantial advantages in Western Power's proposed approach: it is consistent, transparent, and easy to administer.

However, the Office of Energy is unsure whether the standards proposed are reasonable. The Office strongly believes that further investigation on this matter is required as this may constitute a barrier to entry.[364]

1186. Perth Energy submitted:

We note that the issue of security (credit support) has material consequences to the cost structure of small retailers, via the fact that it equates to a cash deposit, with the consequent adverse impact on working capital requirements and return on capital employed. Western Power's proposal would require a small retailer to deposit a cash amount to the value of up to around 1c/kWh supplied.

In summary, Networks is required to behave as a reasonable and prudent person, should only require credit support if it reasonably considers there is a material risk of default, should negotiate alternative arrangements that reasonably address Networks' risk and must not behave so as to create an entry barrier or hinder or prevent access.

[363] Access arrangement information, Appendix 10, page 7.

[364] Office of Energy, page 13.

In this context, we propose that Western Power should have proper regard to the fact that the retailer:

- is not itself the end-consumer of the network capacity but is merely compelled to act as an intermediary between Western Power and its end-consumers. In effect, the retailer acts as Western Power's unpaid Account Manager, thereby greatly simplifying its contract management and customer relationships
- acts as Western Power's unpaid revenue collector in respect of the funds due to Western Power by its end-consumers
- bears the risk of financial default by Western Power's end-consumers without compensation from Western Power

From this perspective, we suggest it is unreasonable for Western Power to demand that the retailer further indemnifies Western Power, via the security, in respect of the risks that more properly belong to Western Power.

…

We perceive that Western Power's proposed clause 9 is a material barrier to entry for retailers and will unnecessarily increase costs for end-users. It also falls considerably short of the requirements of the MSAC and we request the ERA to require Western Power to adhere to the provisions of the access code.[365]

Authority's Assessment

1187. Western Power has proposed a variation to the MAC which results in security being required where an unqualified credit rating has not been provided by a user. In the view of the Authority, the variation is material as it places a significant burden on a user to obtain a credit rating where this is otherwise not required under the MAC.

1188. The MAC provides a threshold test for security to be provided by a user. That is, where Western Power as a reasonable person has determined that there is a material risk that the user does not have the financial and technical resources to meet its obligations. The Authority regards this provision as reasonable in that a user is only required to bear the cost burden of providing security where there is a material risk of loss to Western Power, judged objectively.

1189. Western Power proposes substituting a credit rating threshold. There are two difficulties with this approach. First, the credit rating threshold cannot indicate anything about the user's technical resources, which is one of the matters which under the MAC provision may trigger a security requirement. Second, as far as the financial standing of the user is concerned the absence of one of the specified credit ratings would not necessarily indicate that a user could not meet its financial obligations in any particular circumstances.

1190. Further, the Authority's investigations have revealed that the costs of acquiring a rating from a recognised rating agency is in the order of $50,000 or more. The need to obtain such a rating may not otherwise be necessary for the user to conduct their business and, therefore, the Authority's acceptance of Western Power's proposal could impose a material additional cost burden on users seeking to establish a retail or generation business, which could operate as a barrier to entry.

[365] Perth Energy, page 3.

1191. For the reasons above, and having regard to the MAC, the Authority considers that the proposed variation is not reasonable and therefore inconsistent with section 5.3(a) of the Access Code and the Code objective.

Required Amendment 88

Western Power to amend Electricity Transfer Access Contract clause 9(a) (Security for Charges and Contributions) to reproduce Model Access Contract clause A3.51(a) without material omission or variation.

Interest on security by way of pre-payment (ETAC clause 9(a)(iii); MAC clause A3.51(a)(i))

Western Power's Proposal

1192. ETAC clause 9(a)(iii) provides that by way of security a user may pre-pay 2 months' services in cash, on which no interest is payable. MAC clause A3.51(a)(i) is silent on the question of interest.

Interested Party Submissions

1193. Perth Energy submitted:

> We further note that clause 9 a) iii) of Western Power's proposal provides for no interest to be paid on cash deposits, which is contrary to reasonable and prudent commercial practice and to the norms established in other aspects of the electricity market regulations.[366]

Authority's Assessment

1194. Western Power has proposed a variation to the MAC which results in no interest being payable by Western Power on security provided by a user. The Authority considers that the variation is material as it introduces a requirement to not pay interest in such circumstances.

1195. The MAC provides for pre-payment as a form of security but is silent on the question of interest. If Western Power did not pay interest, then it would make a return on the investment in its network which would not be "earned" in any relevant sense. The Authority notes Perth Energy's submission that the ordinary commercial practice would be for Western Power to compensate the user for the opportunity cost of security by way of pre-payment.

1196. For the reasons above, and having regard to the MAC, the Authority does not regard the variation to preclude payment of interest on pre payments as reasonable and is therefore inconsistent with the requirements of section 5.3(a) of the Access Code and the Code objective.

[366] Perth Energy, page 4.

Required Amendment 89

Western Power to amend Electricity Transfer Access Contract clause 9(a)(iii) (Interest on security by way of pre-payment) to reproduce Model Access Contract clause A3.51(a)(i) without material omission or variation

Security for capital contributions (ETAC clause 9(b); MAC clause A3.51(b))

Western Power's Proposal

1197. ETAC clause 9(b) and MAC clause A3.51(b) both address issues of security in relation to unpaid capital contributions but in substantially different terms. The relevant variations are:

- under MAC clause A3.51(b) the service provider may only seek a contribution when satisfied that the user's technical or financial resources are such that a reasonable and prudent person would consider that there is a material risk that the user will be unable to meet the obligation to pay the capital contribution. There is no such qualification on Western Power's right to seek security for a capital contribution under ETAC, clause 9(b); and
- under MAC clause A3.51(b) there are three alternative forms of security for a capital contribution which a user may provide in order to satisfy an obligation to provide such security. Under ETAC clause 9(b) there is only one form of security, namely an unconditional and irrevocable bank guarantee.

1198. Western Power submitted:

> … the user must secure the full amount of any unpaid contribution calculated under the capital contributions policy with a bank guarantee.[367]

Interested Party Submissions

1199. Office of Energy submitted:

> [In ETAC 9(b)] Western Power has substantially reduced the number of ways in which a User may provide security for a capital contribution from that provided for in the Model Access Contract. This may now only be done by bank guarantee.
>
> The Authority should consider the impact of the changes on network Users.[368]

1200. Western Power Generation submitted:

> Clause 9(b) of the ETAC is too prescriptive. See comments at paragraph 62 above.
>
> [NB: Paragraph 62 states '[c]lause 3 of the CAC is too prescriptive. This form of security may not always be appropriate and the applicant should be able to negotiate

[367] Access arrangement information, Appendix 10, page 8.

[368] Office of Energy, page 13.

with Networks over this, or if necessary to have an access dispute arbitrated under clause A4.14(a) of the ENAC']369

Authority's Assessment

1201. Western Power has proposed a variation to the MAC which results in changes to the requirements of capital contributions and security. The Authority considers that the variation is material as it removes options afforded to users under the MAC.

1202. The proposal removes the MAC requirement for security to be payable only where a user's financial or technical capability is questionable. The Authority considers that a user should only bear the cost of security where Western Power's legitimate commercial interests are at risk. For this reason, and having regard to the MAC, the proposal to have security provided in all circumstances is not reasonable and therefore inconsistent with section 5.3(a) of the Access Code.

1203. In relation to the forms of security for a capital contribution which a user may provide in order to comply with a reasonable requirement for such security, Western Power only gives a user the ability to offer security by way of an irrevocable bank guarantee. The Authority considers that it is not reasonable to constrain users to one form of security and users should be provided with a range of security options which are adequate to protect Western Power's interests.

1204. For the reasons above, and having regard to the MAC, the Authority regards the variation which removes options for the provision of security requirements as not reasonable and therefore inconsistent with section 5.3(a) of the Access Code and the Code objective.

Required Amendment 90

Western Power to amend Electricity Transfer Access Contract clause 9(b) (Security for capital contributions) to reproduce Model Access Contract clause A3.51(b) without material omission or variation.

Alternative security arrangements (MAC clauses A3.52 & A3.53)

Western Power's Proposal

1205. MAC clauses A3.52 and A3.53 provide detailed provisions which permit users to seek to modify the specified security requirements and access to dispute resolution procedures in the event that agreement with the service provider cannot be achieved. There is no equivalent to these provisions in the ETAC.

369 Western Power Generation, page 12.

Interested Party Submissions

1206. Office of Energy submitted:

> These provisions have been omitted all together and did provide the User with additional flexibility in providing security. Omission of these provisions may therefore negatively impact upon Users.[370]

Authority's Assessment

1207. Western Power has proposed to omit the provisions under the MAC which relate to alternative forms of security, as well as dispute resolution procedures. The Authority considers that the omission is material as it removes options afforded to users under the MAC.

1208. The restriction of alternative forms of security could result in a barrier to entry where an applicant may be unable to satisfy one form of security but is able to propose a suitable alternative. The Authority considers that omission of options for a user to provide alternative forms of security is not a reasonable requirement and is therefore inconsistent with the requirements of section 5.3(a) of the Access Code.

1209. Furthermore, a SAC is required to provide terms and conditions of access, which include dispute resolution procedures. For the reasons above, and having regard to the MAC, the omission of such provisions is inconsistent with section 5.3(b) of the Access Code as the ETAC would not be sufficiently detailed or complete.

Required Amendment 91

Western Power to amend the Electricity Transfer Access Contract to reproduce Model Access Contract clause A3.52 and A3.53 (Alternative security arrangements) without material omission or variation.

User to bear costs of technical rule compliance (ETAC clause 11.2)

Western Power's Proposal

1210. ETAC clause 11.2 provides for the user to bear its own costs "and all reasonable Western Power costs" related to the user's compliance with technical rules. There is no equivalent requirement under the MAC for Western Power to pass its costs on to users in this fashion.

1211. Western Power submitted:

> In circumstances where there is no technical breach, costs might still be incurred by Western Power to facilitate technical compliance by the user. An example of this is modification by Western Power to grade protection settings to accommodate a facility's continuing compliance. Consequently, the SAC makes it clear that the user

[370] Office of Energy, page 14.

> must pay for the costs of achieving technical compliance, including its own costs and those of Western Power. This is consistent with the Technical Rules.[371]

Interested Party Submissions

1212. Office of Energy submitted:

> The Office queries why is there no equivalent provision for those instances where the User incurs costs on behalf of Western Power?[372]

Authority's Assessment

1213. Western Power has proposed to include an additional clause which requires users to pay for all costs associated with compliance with technical rules. The Authority considers that the addition is material as it introduces a revised balance to the payment of costs as envisaged under the MAC.

1214. Under the MAC users and service providers bear their own costs of technical compliance other than in circumstances where the capital contributions policy applies.

1215. In circumstances where Western Power is entitled to a capital contribution in respect of a network augmentation, then there is a risk that, if this proposal is accepted, Western Power could over-recover in respect of the same activity. That is, once by way of a capital contribution, and again by way of reimbursement by the user of technical compliance costs in relation to the augmentation under the ETAC.

1216. For the reasons above, and having regard to the MAC, the Authority considers that the addition is not reasonable as it poses a risk of over-recovery and is therefore inconsistent with section 5.3(a) of the Access Code.

Required Amendment 92

Western Power to delete Electricity Transfer Access Contract clause 11.2 (User to bear costs of technical rule compliance).

Technical characteristics of Facilities and Equipment (ETAC clause 12)

Western Power's Proposal

1217. The ETAC provides in clause 12(a) for information to be provided by the user to Western Power in relation to technical characteristics of facilities and equipment, and in clause 12(b) that the user must not materially modify such facilities and equipment without first making a successful application under the applications and queuing policy.

[371] Access arrangement information, Appendix 10, page 8.

[372] Office of Energy, page 13.

1218. Western Power submitted:

> A clause has been added to the SAC to ensure that the technical information provided in the original access application, and that the original access offer was based on, is captured in the contract. This clause also requires the user not to materially change their facilities and equipment without making an application under the applications and queuing policy. This provision ensures that Western Power has available to it accurate information on the characteristics of the equipment connected to the network. This information improves the accuracy of planning studies undertaken to assess the integrity of the system. Also, a change in the characteristics of, in particular, generating plant can impact on the network in the same way as a capacity increase, and so might trigger augmentation or other measures, as may be associated with any other application.[373]

Interested Party Submissions

1219. The Authority has not received any public submissions.

Authority's Assessment

1220. The Authority considers that the proposed provisions are, with one exception, consistent with the requirements of section 5.3 of the Access Code and the Code objective having regard to the MAC.

1221. The exception relates to the requirement under the proposal that a user must make application under the applications and queuing policy in relation to any material modification to facilities and equipment. The Authority considers this variation to be material as it places an additional burden on an existing user to return to the queue via the applications and queuing policy.

1222. The Authority considers that it will not necessarily be the case that a modification of facilities and equipment will necessitate an application under the applications and queuing policy, for instance, where a change in the technical characteristics does not affect the capacity required by the user. The Authority considers that it is not reasonable to require an application to be made where there are other means through which Western Power could obtain up-to-date information about the technical characteristics of facilities and equipment and where the modification does not arise in a need for network augmentation. Such a mechanism could include a contractual requirement of notification, with associated remedies for breach by the user of the notification provisions.

1223. For the reasons above, and having regard to the MAC, the Authority is not satisfied that the proposal is consistent with section 5.3(a) of the Access Code, because it is not reasonable to require a user to make application under the applications and queuing policy whenever there is a material modification to the user's facilities and equipment.

[373] Access arrangement information, Appendix 10, page 8.

Required Amendment 93

Western Power to amend Electricity Transfer Access Contract clause 12 (Technical characteristics of Facilities and Equipment) to delete the requirement in clause 12(b) for a user to make application under the applications and queuing policy before modifying facilities and equipment.

If User does not comply with directions from System Operator (ETAC clause 15.2)

Western Power's Proposal

1224. ETAC clause 15.2 provides for Western Power, at the user's cost, to carry out a direction from the system operator which has not been complied with by the user. There is no equivalent to this provision in the MAC.

Interested Party Submissions

1225. Office of Energy submitted:

> Western Power has added a right whereby it may carry out a direction of the System Operator, at the User's cost, if the User fails to comply with the direction himself. The Office of Energy queries whether this is reasonable, and who is liable in a situation where Western Power's actions (using the Users equipment) cause damage.[374]

Authority's Assessment

1226. Western Power has proposed to include an additional clause which allows Western Power to carry out directions of the System Operator, rather than rely on the user to do so. The Authority considers that the addition is material as it introduces a role for Western Power not envisaged under the MAC.

1227. In the view of the Authority, in a situation where the system operator directs a user and the user fails or refuses to comply, the provisions of the *Energy Operators (Powers) Act 1979* and *Electricity Corporations Act 2005* (section 63) provide powers regarding the performance by the network operator of the direction. The MAC also does not confer these powers upon network operators.

1228. For the reasons above, and having regard to the MAC, the Authority considers it is neither reasonable nor consistent with the requirements in section 5.3(b) of the Access Code for a SAC to contain a provision where the subject matter is adequately regulated through other instruments.

[374] Office of Energy, page 14.

Required Amendment 94

Western Power to delete Electricity Transfer Access Contract clause 15.2 (If User does not comply with directions from System Operator).

Actions of third parties causing user to breach technical rules (MAC clauses A3.62 & A3.63)

Western Power's Proposal

1229. Under MAC clauses A3.62 and A3.63 a user is not liable to a service provider for a breach of technical rules caused by the actions of another person, unless the user has been negligent or has not acted as a reasonable and prudent person (except if the breach is otherwise covered by provisions relating to direct damage and force majeure). The ETAC does not contain an equivalent to this clause.

1230. Western Power submitted:

> Western Power believes that the SAC is clear that neither party has any liability for any action regarding a third party, except as regards controllers, who are special class of third party, and therefore, clause A3.62 from the MAC has not been adopted in the SAC.[375]

Interested Party Submissions

1231. Western Power Generation submitted:

> Clause 6.2(d) of the ETAC is an unreasonable alteration of the risk position in the MSAC. As noted in paragraph 61, the Access Contracts omit an equivalent to clauses A3.62 and A.3.63 of the MSAC. The inclusion of clause 6.2(d) of the ETAC is related, and seeks to make the user insure Networks.[376]

And:

> The Connection Access Contract ("CAC") does not contain an equivalent to clauses A3.62 and A3.63 of the Model Standard Access Contract in the ENAC ("MSAC"). Those clauses are an important protection for users. The user should not be asked to insure Networks.[377]

Authority's Assessment

1232. Western Power has proposed to omit a provision of the MAC which deals with third party actions causing breaches to technical rules. The Authority considers that the omission is material as it removes protections for users which exist under the MAC.

1233. MAC clauses A3.62 and A3.63 are directed to the situation where a user may breach the technical rules through no fault of their own where a third party is the

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[375] Access arrangement information, Appendix 10, page 7.

[376] Western Power Generation, page 12.

[377] Western Power Generation, page 9.

sole cause of the breach. In the absence of such a provision, the user would effectively be an insurer of Western Power's network in relation to technical compliance issues.

1234. No evidence has been advanced to justify the re allocation of risk which would be the result of the proposed omission of MAC clauses A3.62 and A3.63.

1235. For the reasons above, and having had regard to the MAC, the proposed omission is considered to be inconsistent with section 5.3(a) of the Access Code and the Code objective, by unreasonably transferring the risk of loss arising from uncontrollable third party actions from Western Power to the user.

Required Amendment 95

Western Power to amend the Electricity Transfer Access Contract to include provisions which reproduce Model Access Contract clauses A3.62 and A3.63 (Actions of third parties causing user to breach technical rules) without material omission or variation.

Service provider must comply with service standards (MAC clause A3.67)

Western Power's Proposal

1236. MAC clause A3.67 provides that a service provider must provide services to a user in accordance with "service standards" that are defined in the MAC as either agreed service standards set out in Schedule 2 of the access contract, or in the absence of any specified standard in the access contract, the service standards applying under the access arrangement. The ETAC contains no equivalent clause.

1237. Western Power submitted:

> The MAC requires that the service provider be contractually bound to meet the relevant service standard for each service requested by a particular user. The service standard benchmarks specified in the access arrangement reflect targets for particular groups according to network configuration and location, and are not applicable on an individual user basis. Therefore any reference to the services standards has been removed from the SAC.[378]

1238. Western Power provided the following further comments to the Authority:

> … the reason for not including service standards in the SAC is that the standards specified are based on system averages (i.e. system-wide, overall performance benchmarks) and hence are not applicable to the performance of an individual service in a particular location for a particular user. Accordingly, the sanctions against Western Power for not meeting a particular service standard are framed by the proposed Service Standards Adjustment Mechanism (as approved by the ERA in the AA) and/or legislation, and not a separate condition duplicated in the individual access contract.

[378] Access arrangement information, Appendix 10, page 6.

> It is not appropriate to say that a particular user under its access contract would receive, for example, a time-of-use reference service at a SAIDI of 242 minutes (06/07 benchmark), because that implies that Western Power would be in default of that access contract if that user experienced a longer interruption time in respect of that reference service. Similarly, if Western Power does not satisfy a service standard for a particular reference service, which is determined on a system-wide basis, it would not be appropriate for Western Power to incur the statutory sanctions and also be in breach of contract with all users being supplied with that reference service.
>
> The service standards proposed in our access arrangement are averaged across the system because the practicalities of operating an electricity network require system diversity to be [taken] into account. Compliance is, therefore, achieved through statutory sanctions, not contractual remedies.
>
> …
>
> In any event, since Service Standard Benchmarks are separately defined for each Reference Service, restating them in a SAC is effectively only a duplication which could possibly lead to some ambiguity of intent.[379]

Interested Party Submissions

1239. Office of Energy submitted:

> Any reference to service standards has been removed from the Standard Access Contract. Western Power asserts "[t]he service standard benchmarks specified in the access arrangement reflect targets for particular groups according to network configuration and location, and are not applicable on an individual user basis."
>
> - Service Standards for non-reference services do not appear to reflect targets for particular groups (refer section 11.1 Access Code).
> - The definition of "Service Standard" in the MAC Access Contract appears to refer to individual service standards, not service standards benchmarks (as argued by Western Power). Under the MAC Access Contract, the Service Standards set out in the Access Arrangement will become individual Service Standards if a Network Service Provider fails to set individual Service Standards in its MAC Access Contract.
>
> The Authority is encouraged to consider whether Western Power's reasoning for not including these Service Standards is appropriate.[380]

Authority's Assessment

1240. Western Power has proposed to omit a provision of the MAC which allows for users and the service provider to agree to service standards. In the view of the Authority, the omission is material as the right to agree individual service standards is then "downplayed" in the SAC.

1241. The service standards benchmarks proposed by Western Power in the access arrangement for reference services for distribution are SAIDI standards and for transmission are circuit availability and system minutes interrupted standards. Generally, these standards are aggregate network reliability measures, rather than user-specific benchmarks, and are the standards which under the MAC apply in the absence of individually agreed standards.

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[379] Email from Western Power to the Authority, 22 November 2005.

[380] Office of Energy, page 11.

1242. The Authority notes that MAC clause A3.67 provides a mechanism for the agreement of individual service standards different to the service standards in the access arrangement. The proposed omission of an equivalent to MAC clause A3.67, if accepted, may result in users being unaware of the option to negotiate individual service standards in the absence of an express provision to do so within the SAC. The Authority considers that the submissions advanced by Western Power do not address the issue of the impact an omission equivalent to MAC clause A3.67 has on the reasonableness of the ETAC and its consistency with the Code objective.

1243. For the reasons above, and having regard to the MAC, the Authority considers that the omission of an equivalent to MAC clause A3.67 is not reasonable and therefore inconsistent with section 5.3(a) of the Access Code and the Code objective.

Required Amendment 96

Western Power to amend the Electricity Transfer Access Contract to include a provision which reproduces Model Access Contract clause A3.67 (Service provider must comply with service standards) and Schedule 2 without material omission or variation.

Indemnifier's representation and warranty (MAC clause A3.69)

Western Power's Proposal

1244. MAC clause A3.69 leaves for completion in the access arrangement a variable, *[x]*, with respect to an indemnifier's representation and warranty. Under the MAC an indemnifier is a party who agrees to indemnify the service provider in respect of the specified user's liabilities (see MAC Recital (d)). Footnote 43 to the Access Code provides with respect to the completion of the variable in MAC clause A3.69:

> If there is to be an indemnifier, add a new clause under this heading: 'The indemnifier represents and warrants to service provider that as at the commencement date, there has been no material change in the indemnifier's financial position since the date service provider received information from the indemnifier stating that position.'

1245. The ETAC does not contain a clause equivalent to MAC clause A3.69 or otherwise to make any provision for the parties to agree that there be an indemnifier.

Interested Party Submissions

1246. The Authority has not received any public submissions.

Authority's Assessment

1247. Western Power has proposed to omit a provision of the MAC which required details on the indemnifier's representation and warranty. In the view of the Authority, the omission is material as it removes an option for terms which attach to an indemnifier.

1248. The MAC provides for the parties to agree that there be an indemnifier. Footnote 21 to the Access Code (which is a footnote to Recital (d)) provides that "[w]hether there is to be an indemnifier is to be inserted in the access contract by agreement between the parties or arbitrated award." Therefore, if as proposed by Western Power the ETAC does not include terms and conditions applicable to the indemnifier in the ETAC, there will not be any approved terms in the event that the parties wish to have an indemnifier. This could lead to uncertainty.

1249. The Authority considers that the absence of the equivalent MAC provisions could create uncertainty as to the terms attaching to an indemnifier, should one be agreed between the parties to an access contract. Further, the removal of the mechanism whereby a user who may not have sufficient financial backing to enter the market, but may be able to obtain access with the backing of a third party indemnifier, would create a barrier to entry.

1250. For the reasons above, and having regard to the MAC, the Authority considers the omission of the indemnifier provisions is not reasonable and inconsistent with the requirements of section 5.3 of the Access Code and inconsistent with the Code objective.

Required Amendment 97

Western Power to amend the Electricity Transfer Access Contract to include provisions that reproduce Model Access Contract Recital (d) and clause A3.69 (Indemnifier's representation and warranty) without material omission or variation.

Limitation of liability (ETAC clause 18.5; MAC clause A3.74)

Western Power's Proposal

1251. MAC clauses A3.74(a) and (b) provide for maximum liability of the service provider to the user and vice versa under and in connection with the contract to be limited to an amount of "$*[x]*". In relation to the service provider's maximum liability under MAC clause A3.74(a), footnote 50 provides as follows:

> Insert the maximum amount of the service provider's liability to UserCo under and in connection with this contract, and insert what this cap applies to (e.g. whether this is per event, in a time period, over the life of the contract, etc). To be inserted in the access arrangement and approved by the Authority under Chapter 4. To the extent that the Authority so approves, the access arrangement may leave this to be inserted in the access contract by agreement between the parties or arbitrated award.

1252. In relation to the user's maximum liability to the service provider under MAC clause A3.74(b), footnote 52 provides an equivalent explanation of the manner in which this clause is to be completed.

1253. ETAC clause 18.5 sets out a detailed proposal in relation to the capping of liabilities of Western Power and its users.

1254. Western Power submitted:

> Western Power has specified various limits of liability to reflect the different levels of technical risk posed by various types of facilities. These different limits again cater for multiple contracted points under the one contract.[381]

Interested Party Submissions

1255. Office of Energy submitted:

> Western Power indicates that it has sought to clarify the allocation of risks and their financial consequences by following the "user pays" principle – with appropriate caps and safeguards. Liability Caps and Safeguards were a strong area of concern throughout the development of the Access Code.
>
> The Office requests that the Authority pay particular attention to the proposed Caps to ensure that they are reasonable and that they don't constitute a barrier to entry.
>
> …
>
> The result of Western Power's proposed limitation of liability is that for each contract Western Power has a total liability of $10 million per year, while the User's liability can be nearly unlimited as it is determined per connection point (as opposed to contract).[382]

1256. Alinta submitted:

> Clause 18.5(b) of the Transfer Contract provides that the user's maximum liability to Western Power in connection with the Transfer Contract is limited depending on the voltage of the "Contracted Point" at which a "generation plant" or "consuming plant" is connected to the SWIN and upon the type of "generation plant".

And:

> Alinta considers that a $50 million limit for each "contracted point" at which a "generation plant" is connected to the SWIN at a voltage of 132kV and above is in excess of the actual risk posed by such facilities. Alinta also considers that the liability limits specified in clause 18.5(b) of the Transfer Contract are in excess of the actual level of risk faced by Western Power. Alinta considers that Western Power's risk of causing damage to a "generation plant" is greater than a user's risk of causing damage to the SWIN. It is more likely that a user's particular plant will be damaged by Western Power's activities, than that such plant will damage the entire SWIN. In addition, the relative effect of loss arising from isolated events would be significantly greater for small generators than for Western Power.
>
> …
>
> Clause 18.5(d) of the Transfer Contract provides that, at the end of each 3 year period, the parties shall negotiate to re-set the maximum liability amounts for Western Power and the user, having regard for any relevant changed circumstances in that period. There is no such clause in the model standard access contract.
>
> Alinta submits that clause 18.5(d) of the Transfer Contract is unreasonable as it provides a wide discretion for Western Power to seek to increase the maximum liability amount of a user and to decrease its liability exposure under clause 18.5(a). Further, clause 18.5(d) provides a lack of certainty to users due to Western Power's wide discretion.[383]

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[381] Access arrangement information, Appendix 10, page 8.

[382] Office of Energy, page 10.

[383] Alinta, page 22.

1257. Newmont submitted:

> Clause 18.5 Limitation of Liability – Western Power has a limitation of liability set at an aggregate amount of $10million, while the Generation User, connected at 132kV and above, has a liability of $50million for each Contracted Point. (Other than wind or solar power generation, which have a liability of $20million). This Clause appears inequitable and arbitrary in its current drafting.
>
> There appears to be a large variation between these caps on Western Power's liability and the cap on Liquidated Damages against Western Power under the Interconnection Works Agreement …[384]

1258. In relation to the IWA Newmont commented:

> Clause 20.2 Cap on Liquidated Damages – The cap on LDs of $500,000 appears to be well below industry standard practice for similar construction work. A typical industry benchmark is 10% of the Works Price. For a typical transmission augmentation project with a contract cost of (say) $30million, the industry cap would be around $3million.[385]

1259. Perth Energy submitted:

> We note that clause 18.5 requires retailers to accept various levels of liability associated with generators and customers under contract to them. At the extreme, retailers contracted with a Generator connected at 132 kV are required to accept and insure for a liability capped at $50 million annually.
>
> This is contrary to clause A3.62 of the MSAC which provides that if 3rd parties cause the User to breach the technical rules, then provided that the User has acted as a reasonable and prudent person and has not been negligent, then the User is not in breach and is not liable for any breach of the technical rules. Moreover, a retailer is not licensed to operate generators or loads and has no control over the entities contracted to it. It is therefore unreasonable to require it to bear the liability, especially as there exists a separate Connection Contract where these liability more properly sit. We are also sympathetic to the view that the market would be best served by Western Power itself insuring the maximum feasible liability with a view to minimising the overall cost and passing through this cost on a user-pays basis.[386]

Authority's Assessment

1260. Western Power's proposal has attracted a wide range of views as to where the appropriate commercial balance ought to be struck between the interests of Western Power and users. The factors mentioned in the submissions have focused on commercial issues between the parties. The submissions have not raised any issues which concern the effect of the proposal on user access to Western Power's network. For example, the submissions have not addressed the availability and cost of insurance to cover risks which Western Power or a user may need to insure against by reason of the proposed limitations of liability and how these factors might affect matters relevant to the achievement of the Code objective. In effect, the parties are asking the Authority to arbitrate an industry-wide limitation of liability clause on commercial grounds.

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[384] Newmont, page 2.

[385] Newmont, page 4.

[386] Perth Energy, page 5.

1261. Under the Access Code (footnotes 50 and 52) the Authority has discretion not to determine respective caps on the liability of Western Power and users when the Authority considers it appropriate, and to leave the determination of such caps for agreement between the individual parties, subject to arbitration. In this case, where the Authority does not have any submissions before it addressing access (as opposed to commercial) issues between Western Power and various users, the Authority considers that it should not determine this matter but rather exercise the discretion to leave the matter for determination by commercial negotiation and, if necessary, arbitration in accordance with the Access Code.

1262. The Authority considers that it would not be reasonable to include a clause in the SAC that attempts to provide equivalent liability provisions for all users. Rather, the Authority considers that each user should be entitled to negotiate the relevant liability provisions in accordance with their individual requirements. The Authority considers that this is an appropriate case to exercise the discretion conferred by the Access Code not to determine the respective caps on liability of Western Power and users.

1263. For the reasons above, and having regard to the MAC, the proposed clause is considered to be inconsistent with section 5.3(a) of the Access Code.

Required Amendment 98

Western Power to amend Electricity Transfer Access Contract clause 18.5 (Limitation of liability) to reproduce Model Access Contract clause A3.74 without material omission or variation such that the value of "x" is left to be inserted in the access contract by agreement between the parties or arbitrated award.

Extension of indemnity to personnel of a Party (ETAC clause 18.7)

Western Power's Proposal

1264. ETAC clause 18.7 extends the benefit of any indemnity under the ETAC to employees or visitors of the party entitled to the indemnity. There is no equivalent of this clause in the MAC.

1265. Western Power submitted:

> The only other substantive modification to the MAC liability provision is to extend the indemnity to the parties' personnel.[387]

Interested Party Submissions

1266. The Authority has not received any public submissions.

[387] Access arrangement information, Appendix 10, page 9.

Authority's Assessment

1267. Western Power has proposed to include a provision which extends indemnities under the ETAC to employees and/or visitors of the indemnified party. In the view of the Authority, the proposed inclusion is material as it impacts on rights to indemnities for losses which could be substantial and which may therefore be material.

1268. Under the ETAC, indemnities are given in circumstances where the indemnifying party is culpable for loss to the indemnified party (e.g. the indemnity under ETAC clause 18.2 in respect of direct damage caused by the negligence or breach of contract of the indemnifier, and the indemnity under ETAC clause 18.4 in respect of loss through the fraud of the indemnifier). In such cases it is conceivable that employees or visitors of the indemnified party might suffer personal loss. The Authority understands that it is in respect of such loss that the extension of the indemnity is intended to operate. However, the employee or visitor will have rights under the contract of employment (in the case of employees) or common law (in the case of visitors) to recover such loss from the indemnified party, which would be a loss to the indemnified party within the scope of the indemnity. There is therefore no reason for the extension of the indemnity as proposed by Western Power. This is reflected in the MAC, which contains no such extension, and leaves issues regarding rights of employees and visitors to be addressed through the contract of employment and the common law.

1269. The Authority has a concern that the extension of the indemnity as proposed could inadvertently provide protection to employees and visitors which may not be reasonable or appropriate. This could arise if the employee or visitor was responsible for or contributed to the indemnified loss through their own default (e.g. in the case of arson or other deliberate acts or when acting outside the scope of their employment or invitation). In these cases the Authority considers that the effect of the proposed clause would be to extend the indemnity to the employee or visitor. This may not be reasonable because the employee or visitor would not ordinarily be entitled to recover from the indemnified party to the extent of their own culpability.

1270. For the reasons above, and having regard to the MAC, the proposed provision is not considered by the Authority to be reasonable and is therefore inconsistent with section 5..3(a) of the Access Code.

Required Amendment 99

Western Power to delete Electricity Transfer Access Contract clause 18.7 (Extension of indemnity to personnel of a Party).

Insurances are primary (ETAC clause 18.11)

Western Power's Proposal

1271. ETAC clause 18.11 provides that the insurances effected by either party under the ETAC shall be "primary" to any contractual indemnity where the indemnity and insurance both apply and cover the relevant claim. There is no equivalent clause in the MAC.

Interested Party Submissions

1272. The Authority has not received any public submissions.

Authority's Assessment

1273. Western Power has proposed an additional clause which provides for primacy of insurances. The Authority considers that the inclusion is material as it affects claims which may be made under a SAC.

1274. Having made enquiries, the Authority is not aware of any concept in insurance law of an insurance policy being "primary" to a contractual indemnity.

1275. As a consequence, the Authority considers that the proposed clause, if included in the ETAC, would be uncertain in its operation. For this reason the clause is inconsistent with both the reasonableness requirement in section 5.3(a) and the requirements for the content of a SAC to be sufficiently detailed and complete in section 5.3(b) of the Access Code.

1276. The Authority notes that a plausible (but not the only) interpretation of the clause is that it is intended to exclude any liability under a contractual indemnity where there has been a claim made under a required insurance policy in respect of a loss also subject to the contractual indemnity. There would be a difficulty with the clause on this interpretation because it would exclude the insurer's right of subrogation, in circumstances where the insurer is not a party to the contract. The fact that a plausible interpretation of the provision would create legal difficulties also leads the Authority to consider the clause does not satisfy the requirements of section 5.3 of the Access Code and the Code objective.

Required Amendment 100

Western Power to delete Electricity Transfer Access Contract clause 18.11 (Insurances are primary).

Recoveries under Insurance (ETAC clause 18.12)

Western Power's Proposal

1277. ETAC clause 18.12 makes provision for recoveries under insurance to be deemed to have discharged liabilities under the ETAC in respect of the same subject matter

for the purpose of computing a party's liabilities under ETAC clause 18.5 relating to limitation of liabilities. There is no equivalent clause in the MAC.

Interested Party Submissions

1278. Office of Energy submitted:

> Western Power has inserted a clause which provides that if a party has recovered money from its insurer, the party can no longer claim the amount from the other party.
>
> The Office queries whether this means that the insurer also no longer has a claim against the other party?[388]

Authority's Assessment

1279. Western Power has included an additional clause which covers recoveries under insurance. The Authority considers that the proposed addition is material as it creates uncertainty in relation to insurances under a SAC.

1280. It is noted that the Office of Energy's submission does not draw attention to ETAC clause 18.12 being expressed only to operate for the purposes of the limitation of liability provisions in ETAC clause 18.5. The clause has no effect on the liability of the insurer.

1281. The issue to which the clause appears to relate is the point in time at which a contingent liability of either party to pay an insurer under a right of subrogation is to be taken into account for the purpose of calculating the total liabilities of that party in any given year. The approach reflected in the clause is that as soon as a party becomes contingently liable to an insurer to pay an amount in respect of a claim met by the insurer, that amount is deemed to be a liability for the year in question.

1282. This appears to the Authority to be reasonable and otherwise consistent with the Access Code requirements, with the exception that the clause refers not only to situations where a party "is" liable but also situations where that party "may be" liable. The inclusion of the words "may be" brings in uncertainty which the Authority considers could result in the clause operating unreasonably or in a way which is inconsistent with the requirements in section 5.3(b) of the Access Code. This concern could be readily overcome by Western Power confining this clause to situations where it is certain that the party in question is liable (albeit has not yet met a subrogated claim by the insurer).

Required Amendment 101

Western Power to amend Electricity Transfer Access Contract clause 18.12 (Recoveries under Insurance) by deleting the words "or may be liable".

[388] Office of Energy, page 14.

Personal injury to Western Power's Personnel or User's Personnel (ETAC clause 19.1)

Western Power's Proposal

1283. Under ETAC clause 19.1 each party indemnifies the other for personal injury to the other's employees or visitors. There is no equivalent to this provision in the MAC.

1284. Western Power submitted:

> The SAC provides that each Party indemnifies the other party for personal injury of its workers, however caused. This reflects standard industry practice and is particularly relevant because contracted points often have joint electrical isolation procedures with each Party relying on the other in some measure to effect safe isolation. This indemnity is not included in the limit of liability.[389]

Interested Party Submissions

1285. The Authority has not received any public submissions.

Authority's Assessment

1286. Western Power has proposed an additional clause which covers personal injury to another party's employees or visitors. The Authority considers that the proposed addition is material as it would remove any liability for either party to the ETAC causing personal injury, including serious personal injury, to the other party's employees and/or visitors.

1287. The intended operation of the clause, as Western Power has submitted, is that each party will indemnify the other in respect of any personal injury claim by the other party's own employees or visitors regardless of fault. This is inconsistent with the Authority's understanding of the usual practice (and the position which would be applicable if the MAC, which is silent on this issue, was adopted) where responsibility for personal injury is apportioned according to fault (including the employee's own fault). To address the risk of incurring liability in this way, parties throughout industry routinely take out liability insurance to cover the risk of injuring third parties in the course of their business. The "standard industry practice" which is referred to as the basis for Western Power's submission is, therefore, inconsistent with the Authority's understanding of the usual practice.

1288. The Authority considers that the proposed clause may operate unreasonably and may not provide sufficient detail to explain how certain practical difficulties would be addressed. In this respect, the effect of the proposal would be that an innocent employer (whether Western Power or a user) would be precluded from exercising the right under section 93 of the *Workers' Compensation and Rehabilitation Act 1981* to recover any workers' compensation payments from any third party whose fault caused or contributed to the injury. This right of recovery would apply if the MAC was adopted. Importantly, Western Power's proposal to exclude this right of recovery would appear to be directly contrary to section 181 of the *Workers' Compensation and Rehabilitation Act 1981* which prohibits contracting out of rights under the Act. Further, an obligation of a party to the ETAC to indemnify employees and visitors regardless of whether a third party caused or contributed to

[389] Access arrangement information, Appendix 10, page 9.

an injury is an obligation for which there is no insurance market to the knowledge of the Authority, and the Authority is concerned, therefore, that the proposal could create an uninsurable risk of doing business. This is to be contrasted with the usual practice as understood by the Authority where a party may readily limit exposure to the risk of causing personal injury to third parties through liability insurance which covers them for being sued in such circumstances.

1289. For the reasons above, and having regard to the MAC, the Authority considers that the proposed clause is not reasonable or sufficiently detailed and complete and is therefore inconsistent with the requirements of section 5.3 of the Access Code.

Required Amendment 102

Western Power to delete Electricity Transfer Access Contract clause 19.1 (Personal injury to Western Power's Personnel or User's Personnel) and the reference to Electricity Transfer Access Contract clause 19.1 in Electricity Transfer Access Contract clause 19.2.

Precedence of codes and policies (ETAC clauses 22.1, 22.2, 22.3, 22.4 & 22.5; MAC clause A3.26)

Western Power's Proposal

1290. MAC clause A3.26 provides that provisions of the access arrangement in relation to supplementary matters apply as terms of the standard access contract where expressed to do so. ETAC clause 22.3 reproduces this clause. However, in ETAC clause 22, under the heading "Precedence of codes and policies", Western Power has proposed a number of additional provisions in relation to the interaction between the ETAC and a range of other instruments. These provisions, in ETAC clauses 22.1, 22.2, 22.4 and 22.5, have no equivalent in the MAC.

1291. Western Power submitted:

> The access arrangement is being submitted at a time of considerable regulatory change, with the introduction of various new codes and regulations under the Act. Several of these new pieces of legislation will specifically relate to the services being provided under the SAC. Therefore, Western Power has expanded the MAC provision relating to meeting relevant obligations under the Customer Transfer Code to ensure that this legislation and other parts of the access arrangement take precedence over the SAC when there is a conflict.[390]

Interested Party Submissions

1292. The Authority has not received any public submissions.

[390] Access arrangement information, Appendix 10, page 10.

Authority's Assessment

1293. Western Power has proposed additional clauses which outline the hierarchy and precedence of different instruments. The Authority considers that the proposal represents a material change as there is uncertainty and ambiguity over the actual precedence of instruments.

1294. All of the instruments referred to in the proposed ETAC clauses 22.1, 22.2, 22.4 and 22.5 were either in place or contemplated at the time the Access Code and the MAC were written. The Authority considers that the provisions of the MAC and other instruments which define the hierarchy and relationship between them are appropriate or otherwise consistent with the requirements of the Access Code.

1295. The Authority considers that the inclusion of additional clauses which may confuse the hierarchy of instruments results in a SAC which is not sufficiently detailed and complete and is inconsistent with section 5.3(b) of the Access Code.

Required Amendment 103

Western Power to delete Electricity Transfer Access Contract clauses 22.1, 22.2, 22.4 and 22.5 (Precedence of codes and policies).

Curtailment for unplanned system maintenance (ETAC clause 24.1(b); MAC clause A3.27(b))

Western Power's Proposal

1296. MAC clause A3.27(b) provides for the circumstances in which a service provider may curtail for unplanned system maintenance. ETAC clause 24.1(b) reproduces MAC A3.27(b) with the exception of the addition of the word "or" after "necessary to do so" in the second line.

1297. Western Power submitted:

> Western Power also proposes to slightly broaden its curtailment rights for unplanned maintenance where necessary in accordance with Good Electricity Industry Practice. This is not only consistent with other applications of Good Electricity Industry Practice elsewhere in the MAC but avoids circumstances under which Western Power is prevented by a technicality from exercising prudent measures for the benefits of all network users.[391]

Interested Party Submissions

1298. The Authority has not received any public submissions.

[391] Access arrangement information, Appendix 10, page 9.

Authority's Assessment

1299. Western Power has proposed a variation to a MAC clause which results in greater discretion conferred on Western Power to curtail services. The Authority considers that the variation is material as it broadens Western Power's ability to curtail services from that envisaged under the MAC.

1300. The Authority considers that the addition of the word "or" in ETAC clause 24.1(b) materially widens Western Power's ability to curtail for unplanned system maintenance. Under the MAC Western Power may only curtail where it is necessary to do so to avoid injury or damage to property or the environment, whereas under the proposal curtailment may occur whenever Western Power considers it necessary or convenient to do so.

1301. For the reasons above, and having regard to the MAC, the Authority concludes the proposal is not reasonable and is inconsistent with section 5.3(a) of the Access Code.

Required Amendment 104

Western Power to amend Electricity Transfer Access Contract clause 24.1(b) (Curtailment for unplanned system maintenance) to delete the word "or" after the words "necessary to do so" in the second line.

Curtailment in the event of a breakdown (ETAC clause 24.1(c); MAC clause A3.27(c))

Western Power's Proposal

1302. ETAC clause 24.1(c) extends Western Power's rights to curtail for a breakdown of the network affecting services being provided at that "or any other" contracted point. Under the related MAC clause A3.27 the right to curtail only relates to "that connection point" (i.e. the connection point at which the breakdown has occurred).

Interested Party Submissions

1303. The Authority has not received any public submissions.

Authority's Assessment

1304. Western Power has proposed a variation to a MAC clause which results in the ability of Western Power to curtail services at "any other contracted point", rather than just the "connection point" at which a breakdown has occurred. The Authority considers that the variation is material as the provision could interfere with a user's contractual rights.

1305. In the event that an issue affecting supply at one connection point necessitated curtailment in the interests of safety at another connection point, the Authority understands that Western Power is already entitled to curtail as per emergency provisions in section 57 of the *Energy Operators (Powers) Act 1979*, and section 62 of the *Electricity Corporations Act 2005*. The Authority cannot envisage any other

situation where, in the circumstances provided for in the ETAC provision, curtailment would be justified at a connection point other than the point at which the breakdown occurred. This provision would interfere with a user's contractual rights.

1306. For the reasons above, and having regard to the MAC, the variation is not reasonable and is inconsistent with section 5.3(a) of the Access Code.

Required Amendment 105

Western Power to amend Electricity Transfer Access Contract clause 24.1(c) (Curtailment in the event of a breakdown) to delete the words "or any other" appearing before the words "Contracted Point" in the second line.

Notification of curtailment (ETAC clause 24.3; MAC clause A3.29)

Western Power's Proposal

1307. Under MAC clause A3.29, a service provider must use reasonable endeavours to notify a user of any curtailment as soon as practicable. The related clause in the ETAC, clause 24.3, provides for a different notification regime. First, where the curtailment arises from planned network augmentation or maintenance, or in order to comply with a law, Western Power must use reasonable endeavours to notify the user a reasonable time before the curtailment. Second, in all other cases, Western Power is obliged to use reasonable endeavours to notify the user as soon as possible after the curtailment is initiated.

1308. Western Power submitted:

> A minor change has been made requiring Western Power to make reasonable endeavours to provide notice of curtailment before the curtailment where practical rather than always as soon as practicable after the curtailment as worded in the MAC.[392]

Interested Party Submissions

1309. Office of Energy submitted:

> The Office of Energy does not think that the Model Access Contract only requires notice to be given as soon as practicable after the curtailment has occurred. The Model Access Contract requires notice to be given to a User of any curtailment "as soon as practicable". Therefore, if it is possible to give notice beforehand, the Model Access Contract provides that Western Power should do so. Under Western Power's new provision notice only has to be given as soon as practicable beforehand in two specific instances.[393]

[392] Access arrangement information, Appendix 10, page 9.

[393] Office of Energy, page 14.

1310. Alinta submitted:

> Clause 24.3 of the Transfer Contract provides that where a curtailment is planned due to augmentation or maintenance, or where necessary for Western Power to comply with a law, Western Power must use reasonable endeavours to notify the user of the proposed curtailment within "a reasonable time before it occurs". Alinta submits that, in such circumstances, it is reasonable for Western Power to give the user at least a specified minimum number of business days' prior notice and to liaise with the user concerning the timing of the planned augmentation or maintenance, or where necessary for Western Power to comply with a law. That specified minimum number of days should depend on the nature of the load (e.g. priority loads, industrial loads, residential loads), with a minimum of 10 business days' prior notice for any load type. In these circumstances, Western Power will have control of when it will curtail the user's capacity, and it is reasonable for the user to have at least 10 business days' notice of the curtailment in order to deal with the planned curtailment.[394]

Authority's Assessment

1311. Western Power has proposed a variation to the MAC, which requires a network operator to give notice of curtailment as soon as practicable. Western Power's proposal is that notification should be provided before curtailment only in two specific circumstances. The Authority considers that the variation is material as it narrows the scope of a user's contractual rights under the MAC.

1312. The Authority notes the Office of Energy submission. MAC clause A3.29 is not confined in its operation to notification of a curtailment "after the event". If it is practicable for a service provider to notify before the curtailment is initiated, then MAC clause A3.29 requires such notification. By requiring notification of any curtailment as soon as practicable, the MAC ensures that users are not competitively disadvantaged by not being made aware as soon as practicable of any curtailment which might affect their customer relationships.

1313. For the reasons above, and having regard to the MAC, the Authority considers the variation to be not reasonable and therefore inconsistent with section 5.3(a) of the Access Code.

Required Amendment 106

Western Power to amend Electricity Transfer Access Contract clause 24.3 (Notification of curtailment) to reproduce Model Access Contract clause A3.29 without material omission or variation.

[394] Alinta, page 23.

Augmentations & capital contributions (ETAC clause 25 & Schedule 4; MAC clause A3.43 & Schedule 5)

Western Power's Proposal

1314. Within the capital contributions policy framework, MAC clause A3.43 provides that a user is liable to make the agreed capital contribution in respect of an application for a new reference service, which is to be specified in Schedule 5 to the MAC on a case-by-case basis. Other than these provisions relating to capital contributions agreed in accordance with the approved capital contributions policy, no provision is made in the MAC for inclusion in a SAC for any terms or conditions which may be agreed between the parties with respect to a network augmentation. This is consistent with the fact that a SAC is defined as a contract containing terms and conditions of reference services for electricity transfer and not terms and conditions in relation to network augmentation.

1315. Western Power proposes an alternative approach involving the Authority approving an IWA as a SAC. The proposed IWA contains standard terms and conditions, amongst other things, relating to a network augmentation including but not limited to the payment of any capital contribution.

1316. ETAC clause 25.1 provides that where an IWA has been entered into, then the IWA will govern the terms and conditions relating to any network augmentation. ETAC clause 25.2 then provides that where no IWA has been entered into in respect of a network augmentation, Schedule 4 to the ETAC must be completed. Schedule 4 to the ETAC makes provision for the parties to set out the agreed terms and conditions on a number of specified matters relating to the network augmentation including but not limited to payment of any capital contribution.

1317. Western Power submitted:

> Western Power has made several additions to the SAC to properly incorporate the IWA, but to retain sufficient flexibility to allow the original MAC schedules to be used to capture contribution and works provisions.[395]

Interested Party Submissions

1318. The Authority has not received any public submissions.

Authority's Assessment

1319. Western Power has proposed a variation to provisions dealing with construction works and capital contributions. The Authority considers that the variation is material as the provisions incorporate elements not related to access or the transfer of electricity.

1320. The framework under the Access Code in general, and the MAC in particular, proceeds on the basis that, other than with respect to any capital contribution, all matters as between a service provider and a user with respect to a network augmentation are commercial matters which do not have any bearing on access to the network. As such it is appropriate for the matters to be left for negotiation, rather than them being subject to access regulation. By contrast, with respect to

[395] Access arrangement information, Appendix 10, page 10.

the determination of an appropriate capital contribution in the absence of access regulation the incumbent could engage in conduct which could potentially affect access to the network and the achievement of the Code objective.

1321. Western Power's proposal extends the range of matters relating to network augmentation from the determination of the capital contribution to a range of other contractual matters between the applicant and the service provider. However, no reasons have been advanced justifying a departure from the more limited regulatory approach reflected in the Access Code and the MAC.

1322. For the reasons above, and having regard to the MAC, the Authority considers that the evident intent of the Access Code should not be disturbed and it would be inconsistent with the Code objective to do so.

Required Amendment 107

Western Power to delete Electricity Transfer Access Contract clause 25 and Schedule 4 (Augmentations & capital contributions) and to substitute provisions which reproduce Model Access Contract clause A3.43 and Schedule 5 without material omission or variation.

User may make Bare Transfer (ETAC clause 30.1; MAC clause A3.103)

Western Power's Proposal

1323. MAC clause A3.103 provides that a user may make a bare transfer of its access rights without the service provider's consent. The related clause in the ETAC is ETAC clause 30.1. ETAC clause 30.1 varies from MAC clause A3.103 in that the user's right is only exercisable as a reasonable and prudent person.

1324. Western Power submitted:

> The SAC requires the user to act as a reasonable and prudent person in making a bare transfer.
>
> The SAC also provides that the user's ability to assign is governed by the transfer and relocation policy, which makes some clarifications about the assigned rights not leading to the assignment of obligations.
>
> These clarifications provide for a commercially workable agreement.[396]

Interested Party Submissions

1325. The Authority has not received any public submissions.

Authority's Assessment

1326. Western Power has proposed a variation which includes an additional requirement that a user exercise its right to a bare transfer as a "reasonable and prudent

[396] Access arrangement information, Appendix 10, page 10.

person". The variation is material as it affects a user's rights under the Access Code to transfer capacity.

1327. The absence of the additional requirement proposed by Western Policy from the MAC reflects a policy of permitting unrestricted transfer of contractual rights between users where the transfer cannot affect the service provider's existing rights against the user (because the user remains liable).

1328. Having regard to the MAC, the proposed variation is not reasonable as it conflicts with the concept of a "bare transfer" and is therefore inconsistent with section 5.3(a) of the Access Code.

Required Amendment 108

Western Power to amend Electricity Transfer Access Contract clause 30.1 (User may make Bare Transfer) by deleting the words "acting as a Reasonable and Prudent Person" in the first line.

Ringfencing (ETAC clause 33; MAC clause A3.119)

Western Power's Proposal

1329. MAC clause A3.119 provides that where a court or tribunal is considering certain legal issues arising in the context of the business of an integrated provider relating to the interaction between the network and other business, the court or tribunal must have regard to certain matters relating to ringfencing obligations.

1330. ETAC clause 33 varies from the related MAC clause by extending the obligation to any user or indemnifying party.

Interested Party Submissions

1331. The Authority has not received any public submissions.

Authority's Assessment

1332. Western Power has proposed a variation which requires a user or indemnifying party to have regard to ringfencing obligations. This contrasts with the MAC which relates to a court or tribunal having regard to matters relating to ringfencing obligations. This is a material variation as it broadens the obligations under the MAC.

1333. MAC clause A3.119 is applicable when a court or tribunal is making a judicial or administrative decision in which the legal issues relating to the interaction between the network and other businesses of an integrated provider are relevant. The clause requires the court or tribunal to have regard to certain matters relating to ringfencing as matters relevant to the court or tribunal's decision. The proposal by Western Power is that this provision should apply to users and indemnifying parties in relation to commercial decisions.

1334. The Authority sees no rationale for imposing this obligation on a private party as opposed to a public decision-maker.

1335. For the reasons above, and having regard to the MAC, the Authority regards the proposal as not reasonable and inconsistent with section 5.3(a) of the Access Code and the Code objective.

Required Amendment 109

Western Power to amend Electricity Transfer Access Contract clause 33 (Ringfencing) by deleting the words "the User or an Indemnifying Party" in the first line.

Authorised officers (ETAC clause 36.11; MAC clause A3.135)

Western Power's Proposal

1336. MAC clause A3.135 relates to the giving of notices to authorised officers of the parties. The related ETAC clause 36.11 refers to authorised officers specified in "(a)" where it is not apparent to what "(a)" refers.

Interested Party Submissions

1337. The Authority has not received any public submissions.

Authority's Assessment

1338. Western Power has proposed a variation to a MAC clause which includes a typographical error. The Authority considers that the proposed variation is material as it could cause confusion regarding the giving of notices.

1339. To the extent of the typographical error, the proposed variation is not sufficiently detailed and complete and is therefore inconsistent with section 5.3(b) of the Access Code.

Required Amendment 110

Western Power to amend Electricity Transfer Access Contract clause 36.11 (Authorised officers) to reproduce Model Access Contract clause A3.135 without material omission or variation.

Schedule - Tariffs (MAC Schedule 4)

Western Power's Proposal

1340. MAC Schedule 4 – Tariffs leaves for completion in the access arrangement a variable, *[x]*. Footnote 64 to the Access Code provides with respect to the completion of this variable:

> To be inserted in the access arrangement and considered to be consistent with the Access Code requirements by the Authority under Chapter 4. To the extent that the Authority so approves, the access arrangement may leave this to be inserted in the access contract by agreement between the parties or arbitrated award.

1341. The ETAC does not provide an equivalent to Schedule 4.

Interested Party Submissions

1342. The Authority has not received any public submissions.

Authority's Assessment

1343. Western Power has proposed to omit a MAC schedule which specifies the applicable tariffs under the SAC. The Authority considers that the proposed omission is material as it results in an access contract which does not specify the relevant tariffs a user pays under the contract.

1344. Footnote 64 to the Access Code requires the SAC to set out the tariffs that are applicable to each of the reference services which may be supplied under the contract, subject to the exercise of discretion by the Authority to waive that requirement.

1345. In the absence of a provision equivalent to Schedule 4 of the MAC setting out the relevant tariffs, the prices payable under the contract will not be contained in the contract itself, but rather will only be ascertainable from another document (i.e. the published price list).

1346. A SAC is required to set out the terms and conditions for reference services. One of these terms and conditions is the tariff applicable for the service. The omission of such a schedule is inconsistent with section 5.3(b) of the Access Code as the ETAC is not sufficiently detailed and complete.

1347. For the reasons above, and having regard to the MAC, the Authority considers that the absence of prices in the ETAC is inconsistent with the requirements in section 5.3 of the Access Code.

Required Amendment 111

Western Power to amend the Electricity Transfer Access Contract to include Schedule 4 (Tariffs) of the Model Access Contract completed so as to set out the tariffs payable for reference services under the Electricity Transfer Access Contract.

Connection Access Contract

Access Code Requirements

1348. The requirements of a SAC have been discussed at paragraph 966. Essentially, each reference service is required to have a SAC attaching to it.

1349. In addition, the following definitions under section 1.3 of the Access Code are relevant:

- a SAC is defined as "the terms and conditions for a reference service in an access arrangement under section 5.1(b)";
- a reference service is defined as a covered service designated as a reference service in an access arrangement under section 5.1(a) for which there is a reference tariff, a SAC and service standard benchmarks;
- a covered service is defined as "a service in relation to the transportation of electricity provided by means of a covered network" and includes a connection service; and
- a connection service is defined as "the right to connect facilities and equipment to a connection point".

Western Power's Proposal

1350. Western Power has proposed to include a CAC, being a contract in respect of connection facilities between a non-user of reference services (usually a controller) and Western Power.

1351. Western Power proposes including the CAC as a SAC containing all provisions of the SAC except those relating to electricity transfer (i.e. the technical compliance and general provisions of the MAC).

1352. Ordinarily, the user of reference services with an ETAC or intending to enter into an ETAC will be the owner or controller of such facilities and equipment. In such a case, the provisions relating to the technical compliance of the connection facilities will be dealt with in the ETAC equivalent of Part C of the MAC.

1353. The CAC is intended to apply where the user of reference services and the owner of relevant connection facilities are different persons. The CAC is confined to parties who may have connection facilities but who will not use those facilities to transfer electricity into or out of the network.

1354. The proposed CAC is set out in Appendix 4B to the proposed access arrangement.

1355. Appendix 10 of Western Power's access arrangement information contains information regarding the CAC.

1356. In section 1 of Appendix 10, Western Power stated the following reasons for including a CAC in the access arrangement as a SAC, in addition to the other proposed SACs, the ETAC and the IWA:

> Three key matters underpinned Western Power's thinking in developing the SAC and in considering the implications of alternative approaches that may be adopted in addressing particular matters within a standard access contract, namely:

- the access contract should deal with the reference services defined in the access arrangement, being exit and entry services.
- the party receiving connection services (a non-reference service) may not be the contracted recipient of exit or entry services.
- the original contracting party to the construction of connection assets for which a contribution was required may not be a party to a contract for reference services.

Western Power is of the firm belief that providing contractual clarity around these matters promotes competition in upstream and downstream markets (such as generation and retail) not only by facilitating economically efficient investment by Western Power but also by providing certainty to participants and potential entrants to upstream and downstream markets.

Consequently, Western Power includes the following three standard agreements in its access arrangement:

- An electricity transfer contract (the SAC) for entry and exit reference services, incorporating technical compliance requirements.
- A separate connection contract for connection services where the party to that contract (usually a controller) is not party to an electricity transfer contract.
- An Interconnection Works Agreement (IWA) concerning the construction of any payment for works required to provide the services.[397]

1357. Western Power further states:

> The standard connection contract consists of all parts of the standard electricity transfer contract except for those directly dealing with electricity transfer.[398]

Interested Party Submissions

1358. Newmont objected to particular provisions of the CAC, namely clause 1.1 (definition of "Force Majeure"); clause 1.1 (definition of "National Market Identifier"); clause 12.5 (limitation of liability).[399]

1359. Western Power Generation made submissions to the Authority objecting to a number of provisions of the CAC. In response to a subsequent enquiry by the Authority in relation to whether Western Power Generation would support the inclusion of a connection service as a reference service (and the CAC as a SAC in relation to such a service), Western Power Generation indicated that with the advent of the wholesale electricity market, generators would consider a "connection only" service to be a good, and necessary, thing.[400]

1360. Alinta made submissions in relation to the CAC, stating:

> Alinta queries whether the reference services outlined in clauses 3.3 to 3.6 of the Proposed Access Arrangement satisfy the requirements of section 5.2(b) of the Code.
>
> Upon a close examination of the Proposed Access Arrangement's reference services, it is apparent that they do not include:

[397] Access arrangement information, Appendix 10, page 3.

[398] Access arrangement information, Appendix 10, page 10.

[399] Newmont, page 3.

[400] Western Power Generation, pages 9-11.

- a connection service;
- a use of system service;
- a common service;
- ancillary services.

Nor do they provide a simple entry service or exit service in respect of the distribution network.

If the Proposed Access Arrangement intends to incorporate these services as part of the reference services it outlines in clauses 3.3 to 3.5, this is not immediately clear from the face of the document. If this is the intention, the Proposed Access Arrangement should be amended to make it clear.

In addition, if the Proposed Access Arrangement does not intend to provide these services as reference services, it is arguable that it should be required to do so under section 5.2(b) of the Code.

…

Alinta is inclined to the view that a significant number of users or a substantive proportion of the market will seek at least some (if not all) of the omitted services. In particular, given the proposed Applications & Queuing Policy, and the inclusion of a Connection Contract, it is of some concern that the Proposed Access Arrangement does not identify a connection service as a reference service.[401]

And:

Alinta queries whether it is appropriate for the Connection Contract to be included as part of the Standard Access Contract. As noted earlier in this Submission, a connection service does not appear to have been specified as one of the reference services under the Proposed Access Arrangement. Under the Code, standard access contracts should be provided for reference services. Therefore, if the Proposed Access Arrangement does not identify a connection service as a reference service, then the Connection Contract cannot be submitted as part of the Standard Access Contract. However, as discussed above, Alinta submits that it may be preferable for the Proposed Access Arrangement to identify the connection service as one of the reference services.[402]

1361. Alinta made further submissions in relation to the CAC where it set out "the terms of the Connection Contract which Alinta submits are not reasonable and therefore do not comply with the requirements of section 5.3 of the Code and the Code objective"'.[403]

1362. Perth Energy submitted:

We support the use of separate contracts in respect of Electricity Transfer, Connection and Interconnection Works. Their use is a constructive means of properly quarantining and allocating risks and responsibilities. However, we suggest that the ERA require Western Power to modify the approach to better reflect the circumstances of retailers, which do not themselves operate plant, either as consumers or producers of electricity.[404]

[401] Alinta, pages 14-15.
[402] Alinta, pages 18-19.
[403] Alinta, pages 27-28.
[404] Perth Energy, page 2.

1363. In response to a subsequent enquiry by the Authority in relation to whether Perth Energy would support the inclusion of a connection service as a reference service (and the CAC as a SAC in relation to such a service) Perth Energy supported a connection service for generators.

Authority's Assessment

1364. The threshold question is whether the CAC is a SAC, which under section 5.1(b) of the Access Code must be included in the access arrangement.

1365. Western Power's proposed CAC is predicated on the access arrangement offering a connection service as a reference service. However clause 3 of Western Power's proposed access arrangement does not reflect this, as Western Power has not included a connection service as a proposed reference service.

1366. As the Access Code contemplates SACs applying to reference services only – and in the absence of a demonstrable basis that a connection service satisfies the criteria of a reference service – the proposed CAC is not assessed as complying with section 5.3(b)(ii) of the Access Code.

1367. It is noted that it is open to Western Power to propose a connection service as a reference service and specify a related SAC. The Authority's approval of such a proposal would be subject to the Authority concluding that the stand-alone connection service meets the tests for a service to be accepted as a reference service.

1368. Reference services must have an assigned reference tariff, access contract and service standard benchmarks, as well as satisfying the requirements under section 5.2(b) of the Access Code, namely that it is likely to be sought by either or both of:

- a significant number of users and applicants; or
- a substantial proportion of the market for service in the covered network.

1369. The Authority does not at this time have before it sufficient information regarding the demand for a stand-alone connection service to determine whether or not it would meet the above tests. It would also not be appropriate to anticipate Western Power's response to the draft decision by indicating the Authority's likely views about that issue. Any decision in relation to that matter should, therefore, await Western Power's response to the draft decision.

1370. As the CAC is not a SAC it cannot be included in the access arrangement. The Authority may exercise its discretion under section 4.29(b) of the Access Code to approve the inclusion of "something not listed in section 5.1" in the access arrangement. In doing so, it is relevant to consider the provisions of the MAC in relation to technical compliance of connection facilities.

1371. Relevant provisions are to be found in Part C of the MAC, as follows.

- The technical compliance obligations in Part C are expressed to apply to a user of reference services under a SAC. They are not expressed to apply to a party that is not a user of reference services but who may own or control the connection facilities.
- Under clause A3.36 of the MAC, certain entry and exit points are "designated points" for which there must be a designated controller. The designated

controller may be the user or another party that owns connection facilities at the connection point.

- Under clause A3.38 of the MAC, the user of reference services must, for each designated point where the user is not the controller, ensure that the designated controller complies with specified provisions of the MAC, including the technical compliance provisions.
- Under clause A3.39 of the MAC, if a user does not satisfy the service provider after reasonable request that the user is complying with clause A3.38 (i.e. ensuring the designated controller's compliance), the service provider may curtail service until the designated controller has entered into a technical compliance contract with respect to the connection point, or otherwise has agreed in writing with the service provider to be bound.
- The MAC does not otherwise make provision for a SAC to contain technical compliance provisions, such as those under the CAC, to apply as between a controller of connection facilities who is not the user of reference services, and the service provider.

1372. Under the MAC, the service provider's interest in technical compliance of connection facilities is protected by "back-to-back" contracts. That is, in the event of a failure of technical compliance the service provider will have recourse against the user for failing to comply or procure compliance and the user in turn will have recourse against the controller (if the user is not also the controller).

1373. It is noted that under the MAC there is no direct contractual relationship between the service provider and the controller. However, where there is a failure by the user to satisfy the service provider of the controller's technical compliance, the service provider may curtail until the controller enters into a technical compliance contract in accordance with Part C of the MAC.

1374. This "technical compliance contract" would, in effect, be similar to the CAC. However, under the MAC such a contract would only be required in the event of a failure by the user to procure technical compliance, whereas Western Power is seeking to make the CAC applicable without any such pre-condition.

1375. The inclusion of the CAC as proposed by Western Power (i.e. without any requirement that the user had first failed to procure the controller's compliance) would, therefore, be inconsistent with the scheme of the MAC and the Access Code.

1376. One issue not addressed in either Western Power's or any public submissions, but which is relevant to the Authority's decision, relates to whether or not Western Power requires there to be a CAC in place with the controller before a user may obtain a reference service at a particular connection point. Under clause 2.4(f) of the proposed applications and queuing policy, Western Power must not energise a new connection point until "if required by Western Power, acting as a reasonable and prudent person, a connection contract has been signed by an applicant for the connection service and become unconditional". A connection contract is defined in clause 1.1 as "the type of access contract that provides the user with a connection service only".

1377. The effect of the provisions discussed in paragraph 1376 is that a user who is not also the controller of connection facilities at a connection point may not apply for a new service until the controller has entered into a connection access contract, if required by Western Power acting as a reasonable and prudent person.

1378. There is no such qualification on the right to access electricity transfer services under the Access Code, the model applications and queuing policy (in Appendix 2 of the Access Code) or the MAC. The imposition of this condition could affect the ability of new entrants to gain access to the network in circumstances where they do not provide infrastructure for the purpose of transferring electricity (e.g. in the case of a billing agent such as a second tier retailer). Unless generators or end users are willing to enter into CACs in a manner considered to be consistent with the Access Code requirements, such retailers may not be able to effectively enter the market, because they will be unable to control the decision by the controller in each case whether or not to take on the risk in relation to technical compliance on the terms set out in the CAC.

1379. It is noted that Western Power supports the CAC on the basis of providing parties with additional commercial clarity and that this promotes the Code objective.

1380. The Authority considers that there is no commercial uncertainty under the back to back arrangements provided for under the Access Code and attendant MAC. That is, it is clear that the technical compliance requirements in relation to connection facilities are those set out in Part C of the MAC and that it is the user's obligation to comply with those requirements or procure the compliance of a third party controller with the requirements.

1381. The acceptance of Western Power's proposal would not increase commercial certainty but rather would reduce Western Power's commercial risk. The Authority is of the view that a pre condition for a CAC to be in place before a new service could be taken could restrict entry into relevant markets and thereby impede competition.

1382. On balance, it is the Authority's view that it is not appropriate to include the CAC in the access arrangement. It is therefore unnecessary to review, on a clause-by-clause basis, the proposed provisions of the CAC and the various comments by the parties in relation to them.

1383. The Authority does not consider the inclusion of the proposed CAC as a SAC satisfies the Access Code requirements or the Code objective. Further, the Authority does not consider that it should exercise its discretion to include the CAC pursuant to section 4.29 of the Access Code.

Required Amendment 112

Western Power to remove the Connection Access Contract from the proposed access arrangement.

Interconnection Works Agreement

Access Code Requirements

1384. The requirements of a SAC have been discussed at paragraph 966. Essentially, each reference service is required to have a SAC attaching to it.

1385. Schedule 5 of the MAC provides a variable, *[x]*, for terms and conditions with respect to a network augmentation and the payment by a user in accordance with the capital contributions policy. Note 65 to the MAC provides that the terms of Schedule 5 are to be inserted as agreed between the parties or determined in an arbitrated award in accordance with the capital contributions policy in the service provider's access agreement.

Western Power's Proposal

1386. Western Power has included an IWA in Appendix 4C to the proposed access arrangement. The IWA is a contract with respect to the construction by Western Power of facilities and equipment required for the transfer of electricity into or out of the network.

1387. The other party to an IWA may be a user with an ETAC or intending to enter into an ETAC. However, the other party to an IWA may also be a party who has no intention of entering into an ETAC, but rather is constructing connection facilities to enable another user to transfer electricity across the network.

1388. The facilities and equipment to be constructed under the IWA may be any or all of:

- an augmentation to Western Power's network,
- shared facilities; or
- facilities and equipment of the other party to be connected to the Western Power network (connection facilities).

1389. The IWA contains provisions relating to the:

- provision of construction services by Western Power to the other party in relation to shared facilities and connection facilities, and payment for such services; and
- construction by Western Power of a network augmentation and the payment of contributions by the other party with respect to any augmentation to Western Power's network.

1390. In support of the inclusion of an IWA, Western Power states:

> The standard IWA replicates the requirements of the payment contract, the works contract and the payment in kind contract referred to in the various appendices in the Code. In the Code, the MAC addressed these matters in Schedule 5. Given that a party to an IWA, such as the developer of a subdivision may not be required to sign an access contract, Western Power has created this separate contract.
>
> The IWA meets the requirements under the Code specifically:
>
> - A2.103 – terms included in an access offer (as set out in the applications and queuing policy);
> - A4.12(b) – security provisions in the payment contract (as set out in the capital contributions policy);
> - A4.14(a) – financial provision for contribution (as set out in the capital contributions policy);
> - A4.14(c)(i) – adjustment of periodic payments (as set out in the capital contributions policy);

- A4.14(c)(i) – reimbursement of up-front payment (as set out in the capital contributions policy);
- A4.21 – security provisions (as set out in the capital contributions policy).

Western Power will always require a signed payment contract or works contract prior to commencing any augmentation. This will either be in the form of the IWA or for augmentations involving less technical and commercial risk, in the form of a signed offer. In such circumstances, the terms of the offer will be similar to those of an IWA but with no greater contractual obligation than would exist under the IWA.[405]

And:

The IWA recognises that applicants might request Western Power to perform some of the applicant's works, or Western Power might choose to tender for the applicant's works (works related to excluded services), and so these works have been foreshadowed in the standard IWA for convenience as 'Customer Works'. Where appropriate due to the different nature of the works, different provisions have been specified for the Customer Works and the Western Power Works.

It is important to ensure an appropriate allocation of risks, given that unlike a normal contractor, Western Power cannot reasonably refuse to undertake the works. Therefore, Western Power will accept capped insurable liabilities only, and will require a third party indemnity for persons associated with the applicant.

One notable feature of the IWA is that Western Power has included a liquidated damages provision capped at a maximum of $500,000 for the Western Power Works. Liquidated damages for the Customer Works will be treated as any other commercial matter to be negotiated between the parties.

In other respects, the IWA is similar to normal construction contracts, allowing for the difference in final ownership of the assets being constructed.[406]

Interested Party Submissions

1391. Office of Energy stated:

The Interconnection Works Agreement, as proposed by Western Power, appears to be a completely separate contract and deals with provisions that are covered in Schedule 5 of the Model Access Contract.

However, the Interconnection Works Agreement also extends the scope of Schedule 5 significantly and, in relation to those matters that fall outside of the scope of Schedule 5, no prior stakeholder discussion or consultation has been undertaken.

The Office of Energy suggests that particular attention be given to the Interconnection Works Agreement and, in assessing its suitability, consideration of the extent to which it contributes to achievement of Code objectives.

On this basis, barring any other stakeholder issues with the proposed form of the Interconnection Works Agreement, it is reasonable for the Authority to consider the contract as it contributes to the achievements of Access Code that are set out in s.2.1.[407]

1392. Newmont objected to a number of provisions of the IWA.[408]

[405] Access arrangement information, Appendix 10, page 10.
[406] Access arrangement information, Appendix 10, page 11.
[407] Office of Energy, pages 4-5.
[408] Newmont, pages 3-4.

1393. Western Power Generation stated:

> Networks has chosen to adopt a non-standard form of construction contract. It may not be necessary for Networks to use a widely-accepted standard form of contract such as AS 2124, but as a general observation most of the departures in Networks' proposed contract from industry standards positions involve moving to a position more favourable to Networks.
>
> In addition, the boilerplate provisions differ from those in the Access Contracts. It would be preferable for all of these contracts to have common terminology where possible.[409]

1394. Western Power Generation also made a number of specific comments objecting to provisions of the IWA.[410]

1395. Alinta also made detailed submissions in relation to the IWA noting:

- the Access Code does not contemplate an IWA;
- it is not entirely clear whether the IWA must meet the requirements of a SAC under section 5.3 or what other provisions are applicable;
- Western Power appears to consider that section 5.3 of the Access Code is not applicable to the IWA;
- as the IWA deals with matters within the scope of the MAC (i.e. the matters under Schedule 5), it should meet the requirements with respect to a SAC;
- given that the Access Code does not provide any guidance as to the specific content of an IWA, an applicant needing a required augmentation is particularly vulnerable and potential exists for an applicant to be significantly disadvantaged by the terms of the IWA;
- the Access Code requirements demand that the IWA should be typical of a contract for works entered into by parties of equal bargaining power negotiating at arms' length in the Western Australian power industry;
- the IWA currently falls short of this standard in a number of material respects and is heavily weighted in favour of Western Power.[411]

1396. Alinta submitted:

> … the IWA fails to meet the Code requirements because:
>
> - some terms of the IWA are unreasonable, resulting in an unfair allocation of risks to the applicant; and
> - the IWA does not have sufficient certainty with respect to the time for completion of the interconnection works or the capital contribution for which the applicant is liable.[412]

[409] Western Power Generation, page 12.

[410] Western Power Generation, pages 12-16.

[411] Alinta, pages 29-30.

[412] Alinta, page 30.

1397. Perth Energy submitted:

> We support the use of separate contracts in respect of Electricity Transfer, Connection and Interconnection Works. Their use is a constructive means of properly quarantining and allocating risks and responsibilities. However, we suggest that the ERA require Western Power to modify the approach to better reflect the circumstances of retailers, which do not themselves operate plant, either as consumers or producers of electricity.[413]

Authority's Assessment

1398. The threshold question is whether the IWA is a SAC, which under section 5.1(b) of the Access Code must be included in the access arrangement.

1399. Clause 3 of Western Power's proposed access arrangement does not offer construction related services as reference services.

1400. Three situations need to be considered:

- Where an IWA is between Western Power and a non-user of a reference service (i.e. Western Power have given the example of the developer of a subdivision) there will not be any terms and conditions of the IWA which are terms and conditions of a reference service. In these cases the IWA will govern the terms and conditions of construction work by Western Power with respect to network augmentation, shared facilities and if agreed, the other party's own connection facilities. To the extent that such a contract provides for a capital contribution to Western Power with respect to the network augmentation, such a contribution will not be subject to testing against the Access Code requirements, capital contributions policy and Schedule 5 of the MAC. In this situation, therefore, the IWA will not operate as a SAC.
- Where an IWA is between Western Power and a user of, or applicant for, reference services, then it may be a contract with respect to construction work to be carried out by Western Power on shared facilities or the user's own connection facilities. Again, in such cases the IWA will not operate as a SAC providing terms and conditions of reference services, but rather will be a construction contract setting out the terms and conditions of construction services to be provided by Western Power.
- The final situation is an IWA between a user of a reference service and Western Power with respect to a network augmentation, including the terms governing the payment of a capital contribution by the user. The MAC contemplates the inclusion of such terms and conditions in Schedule 5. However footnote 65 of the MAC does not provide for such provisions to be prescribed in the access arrangement (as Western Power proposes). Rather such terms are to be agreed (and failing agreement arbitrated) and included in the access contract on a case by case basis. In this situation the IWA will not operate as a SAC either.

1401. As the Access Code contemplates SACs applying to reference services only – and in the absence of a demonstrable basis that construction related services satisfy the criteria of a reference service – the proposed IWA is not assessed as complying with section 5.3(b)(ii) of the Access Code.

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[413] Perth Energy, page 2.

1402. As the IWA is not a SAC it cannot be included in the access arrangement on this basis. The Authority may exercise its discretion under section 4.29(b) of the Access Code to approve the inclusion of "something not listed in section 5.1" in the access arrangement.

1403. The Authority notes that Western Power seeks to justify inclusion of the IWA in the proposed access arrangement on the grounds of providing parties with commercial clarity.

1404. The Authority must have regard to the Code objective when considering whether to exercise its discretion and include the IWA. The Code objective is to promote the economically efficient investment in and operation and use of "networks" and "services" of networks in Western Australia in order to promote competition in markets upstream and downstream of the networks.

1405. It is noted that prescribing commercial terms and conditions and thereby providing parties with "commercial clarity" is not necessarily consistent with the promotion of the Code objective. It will be the content of the prescribed terms and conditions which will determine whether the Code objective will or will not be promoted.

1406. Submissions indicate that the industry disagrees substantially with Western Power's proposition that the content of the proposed IWA will promote the Code objective.

1407. In this case, the Authority is essentially being asked to arbitrate terms and conditions of non-reference services by reference to the Code objective. It is not appropriate for the Authority to do so when the Access Code clearly contemplates that such terms are to be agreed or failing agreement arbitrated under the relevant provisions of the Access Code.

1408. It is further noted that, as Western Power has itself pointed out, the proposed IWA addresses certain key matters as between Western Power and users of reference services in respect of which the parties' rights and obligations are to be set out in the applications and queuing policy and the capital contributions policy.[414] As such, the inclusion of those provisions in a manner considered to be consistent with the Access Code requirements, the IWA would involve unnecessary duplication with other policies under the access arrangement. In these respects, where the Access Code makes provision for matters to be prescribed in an access arrangement (including its associated policies), there can be no "uncertainty" as to the treatment of such matters which needs to be addressed by a separate IWA.

1409. In view of the above comments it is not appropriate to include the IWA in the access arrangement. It is therefore also unnecessary to review, on a clause by clause basis, the proposed provisions of the IWA and the various comments by the parties in relation to them.

1410. The Authority does not consider the inclusion of the proposed IWA as a SAC is consistent with the Access Code requirements or the Code objective. Further, the Authority does not consider that it should exercise its discretion to include the IWA pursuant to section 4.29 of the Access Code.

[414] Paragraph 1390 quotes the instances where Western Power indicate clauses set out in the policies are replicated in the IWA.

Required Amendment 113

Western Power to remove the Interconnection Works Agreement from the proposed access arrangement.

Applications and Queuing Policy

Introduction

1411. Section 5.1(g) of the Access Code provides that an access arrangement must include an applications and queuing policy. Sections 5.7 to 5.11 of the Access Code set out the requirements which must be met by an applications and queuing policy.

1412. Sections 5.7 to 5.11 of the Access Code provide as follows:

> 5.7 An applications and queuing policy must:
>
> (a) to the extent reasonably practicable, accommodate the interests of the service provider and of users and applicants; and
>
> (b) be sufficiently detailed to enable users and applicants to understand in advance how the applications and queuing policy will operate; and
>
> (c) set out a reasonable timeline for the commencement, progressing and finalisation of access contract negotiations between the service provider and an applicant, and oblige the service provider and applicants to use reasonable endeavours to adhere to the timeline; and
>
> (d) oblige the service provider, subject to any reasonable confidentiality requirements in respect of competing applications, to provide to an applicant all commercial and technical information reasonably requested by the applicant to enable the applicant to apply for, and engage in effective negotiation with the service provider regarding, the terms for an access contract for a covered service including:
>
> (i) information in respect of the availability of covered services on the covered network; and
>
> (ii) if an augmentation will be required to provide the covered services sought:
>
> operational and technical details of the required augmentation; and
>
> commercial information regarding the likely cost of the required augmentation;
>
> and
>
> (e) set out the procedure for determining the priority that an applicant has, as against another applicant, to obtain access to covered services, where the applicants' access applications are competing applications; and
>
> (f) to the extent that contestable consumers are connected at exit points on the covered network, contain provisions dealing with the transfer of capacity associated with a contestable consumer from the user currently supplying the contestable consumer ("outgoing user") to another user or an applicant ("incoming user") which, to the extent that it is applicable, are consistent with and facilitate the operation of any customer transfer code; and
>
> (g) establish arrangements to enable a user who is:
>
> (i) a 'supplier of last resort' as defined in section 67 of the Act to comply with its obligations under Part 5 of the Act; and
>
> (ii) a 'default supplier' under regulations made in respect of section 59 of the Act to comply with its obligations under section 59 of the Act and the regulations; and

(h) facilitate the operation of Part 9 of the Act, any enactment under Part 9 of the Act and the 'market rules' as defined in section 121(1) of the Act; and

(i) if applicable, contain provisions setting out how access applications (or other requests for access to the covered network) lodged before the start of the relevant access arrangement period are to be dealt with.

{Note: For the first access arrangement period section 5.7(i) would apply in respect of access applications or requests for access lodged under any prior access regime such as the regimes established under the Electricity Transmission Regulations 1996 (WA) and Electricity Distribution Regulations 1997 (WA). For subsequent access arrangement periods it would apply in respect of access applications lodged in a prior access arrangement period.}

5.8 The paragraphs of section 5.7 do not limit each other.

5.9 Under section 5.7(e), the applications and queuing policy may:

(a) provide that if there are competing applications, then priority between the access applications is to be determined by reference to the time at which the access applications were lodged with the service provider, but if so the applications and queuing policy must:

(i) provide for departures from that principle where necessary to achieve the Code objective; and

(ii) contain provisions entitling an applicant, subject to compliance with any reasonable conditions, to:

A. current information regarding its position in the queue; and

B. information in reasonable detail regarding the aggregated capacity requirements sought in competing applications ahead of its access application in the queue; and

C. information in reasonable detail regarding the likely time at which the access application will be satisfied;

and

(b) oblige the service provider, if it is of the opinion that an access application relates to a particular project or development:

(i) which is the subject of an invitation to tender; and

(ii) in respect of which other access applications have been lodged with the service provider,

("project applications") to treat the project applications, for the purposes of determining their priority, as if each of them had been lodged on the date that the service provider becomes aware that the invitation to tender was announced.

5.10 An applications and queuing policy may:

(a) be based in whole or in part upon the model applications and queuing policy, in which case, to the extent that it is based on the model applications and queuing policy, any matter which in the model applications and queuing policy is left to be completed in the access arrangement, must be completed in a manner consistent with:

(i) any instructions in relation to the matter contained in the model applications and queuing policy; and

(ii) sections 5.7 to 5.9;

(iii) the Code objective;

and

(b) be formulated without any reference to the model applications and queuing policy and is not required to reproduce, in whole or in part, the model applications and queuing policy.

{Note: The intention of this section 5.10(b) is to ensure that the service provider is free to formulate its own applications and queuing policy which complies with sections 5.7 to 5.9 but is not based on the model applications and queuing policy.}

5.11 The Authority:

(a) must determine that an applications and queuing policy is consistent with sections 5.7 to 5.9 and the Code objective to the extent that it reproduces without material omission or variation the model applications and queuing policy; and

(b) otherwise must have regard to the model applications and queuing policy in determining whether the applications and queuing policy is consistent with sections 5.7 to 5.9 and the Code objective.

1413. Western Power includes at Appendix 1 of its proposed access arrangement an applications and queuing policy (**Proposed AQP**).

1414. Western Power states that the Proposed AQP is based upon the model applications and queuing policy in Appendix 2 to the Access Code (**Model AQP**) with variations, additions and omissions.

1415. Western Power has provided justification to the Authority in relation to the Proposed AQP in its access arrangement information at Appendix 8.

1416. The Authority has received submissions from the following interested parties commenting on the Proposed AQP:

- Office of Energy;
- Western Power Generation;
- Newmont;
- Alinta; and
- WASEA.

1417. There are a substantial number of provisions in the Proposed AQP which are identical to those contained in the Model AQP. The Authority considers that these provisions reproduce without material omission or variation the Model AQP under section 5.11(a) of the Access Code and, therefore, the Authority considers that the inclusion of these provisions meet the requirements of the Access Code.

1418. There are also a substantial number of cases where the Proposed AQP contains an omission or variation from the Model AQP which the Authority regards as not material, having regard to the Code objective. In such cases the Authority considers these omissions or variations to meet the requirements of the section 5.11(a) of the Access Code.

1419. The majority of the provisions of the Proposed AQP fall into the categories described in paragraphs 1417 and 1418. Once the Authority has concluded that a provision meets the requirements of section 5.11(a) of the Access Code, the Authority has no further discretion to amend or delete a clause even where submissions have been received seeking amendment or deletion of the clause.

1420. Of the 80 total subclauses included in the Proposed AQP, 43 have been assessed by the Authority as being consistent with the requirements of section 5.11(a) of the Access Code and are therefore not discussed in this draft decision.

1421. There are a number of provisions of the Proposed AQP which contain an omission or variation from the Model AQP which the Authority regards as material having regard to the Code objective. In such cases, the Authority has, on a clause-by-clause basis, assessed whether the omission or variation is consistent with sections 5.7 to 5.9 of the Access Code and the Code objective, having regard to the provisions of the Model AQP.

1422. Western Power has added provisions in the Proposed AQP which have no equivalent in the Model AQP. In such cases the Authority has, on a clause-by-clause basis, assessed whether the provision is consistent with sections 5.7 to 5.9 of the Access Code.

1423. There are provisions of the Model AQP which are left for completion in the Proposed AQP. In these cases, to the extent that the Proposed AQP provision is based upon the relevant Model AQP provision, the Authority has, on a clause-by-clause basis, assessed whether the provision has been completed in a manner which is consistent with any instructions in relation to the matter contained in the Model AQP, sections 5.7 to 5.9 and the Code objective.

1424. In relation to the provisions of the Proposed AQP which are not assessed as being consistent with section 5.11(a) of the Access Code, the Authority has assessed each provision against the relevant criteria in the Access Code, taking account of Western Power's and other parties' submissions.

1425. In assessing the Proposed AQP against the requirements of the Access Code, the Authority notes that section 5.11(b) of the Access Code requires the Authority to have regard to the Model AQP when testing the relevant clause for consistency with sections 5.7 to 5.9 of the Access Code and the Code objective. As such, the Authority's role under section 5.11(b) is to test the consistency of the proposed clause with sections 5.7 to 5.9 and the Code objective, taking the approach under the Model AQP as one example of an approach which would be consistent with those provisions.

1426. Where the Authority is not satisfied that an omission or variation from the Model AQP meets the requirements of the Access Code and subsequently additional information is provided through submissions demonstrating that the omission or variation does in fact meet the requirements of the Access Code, then the Authority will reconsider the omission or variation prior to the final decision.

1427. Where the Authority's assessment is that the proposed clause is not consistent with the relevant Access Code criteria after taking account of submissions received, the required amendments are set out at the conclusion of the discussion of the relevant clause.

Transition of prior applications (Proposed AQP clause 1.3; Model AQP Note 1)

Western Power's Proposal

1428. Under the heading "Transition of prior applications", the Model AQP provides for inclusion of a variable, *[x]*. Note 1 to the Model AQP provides as follows in relation to the completion of this variable:

> Insert transition of prior applications provisions, if applicable. To be inserted when the model applications and queuing policy is incorporated into an access arrangement. See section 5.7(i) of the Code.

1429. Section 5.7(i) of the Access Code referred to in Note 1 provides that the access arrangement must, if applicable, contain provisions setting out how access applications (or other requests for access to the covered network) lodged before the start of the relevant access arrangement period are to be dealt with.

1430. Proposed AQP clause 1.3 addresses the requirement to complete the provision in accordance with the instructions in Note 1 to the Access Code.

1431. Western Power stated:

> An effective transition until the access arrangement is in place, through the concept of a "continuous" queue, such that any prior applications still current after the access arrangement comes into effect are held to have been made on the date of its coming into effect, such that prior and subsequent applications can be dealt with on a consistent basis.[415]

Interested Party Submissions

1432. Western Power Generation stated:

> Clause 1.3(c) of the Applications and Queuing AQP ("AQP") provides that all applications made prior to the commencement of the access arrangement period will be deemed to have been made on the commencement of the access arrangement period. Under this provision a prior application that has been progressed to an advanced stage may effectively be "reset" upon commencement. Taking such a uniform approach is inconsistent with 11 the ENAC. The full timeframes under the AQP should only apply to applications that have been made a very short time prior to the commencement of the Access Arrangement.[416]

Authority's Assessment

1433. Proposed AQP clauses 1.3(a) & (b) are reasonable inclusions, facilitating the transfer of existing applicants into the queue, and retaining the "priority" of the initial application. As such, the proposed clauses are consistent with the relevant requirements in sections 5.7(e), 5.7 (i) and 5.9 of the Access Code.

1434. Proposed AQP clause 1.3(c) refers to the situation where relevant timeframes apply on the day the access arrangement period commences. While the Authority acknowledges Western Power Generation's concerns, it is satisfied that the priority

[415] Access arrangement information, Appendix 8, page 3.

[416] Western Power Generation, page 3.

of applications will be adequately addressed under Proposed AQP, clause 1.3(b). In the view of the Authority, clause 1.3(c) only governs the timeframes in the applications and queuing policy, and does not affect actions already taken for existing applications.

1435. The Authority is satisfied that the clause has been completed as required by section 5.10(a) of the Access Code in a manner consistent with the instructions in the Access Code, sections 5.7 to 5.9 of the Access Code and the Code objective.

Applications to be made in good faith (Proposed AQP clause 1.4; Model AQP clause A2.4)

Western Power's Proposal

1436. Model AQP clause A2.4 imposes an obligation on the service provider to negotiate in good faith in relation to the terms for an access contract for a covered service. Proposed AQP clause 1.4 varies this provision by extending the obligation also to the applicant. Proposed AQP clause 1.4(a) also adds the requirement for the user to expect to proceed in good faith to a "signed access contract".

1437. Western Power submitted:

> A general requirement for all applicants to make application believing in good faith that their project will proceed (by for example, not making multiple applications for the same point) so as not to frustrate or disadvantage other applicants in the queue.[417]

Interested Party Submissions

1438. Western Power Generation submitted:

> The good faith test is vague and is open to exploitation by a service provider. Any element in the AQP which increases uncertainty or which gives the service provider scope to resist an application on subjective grounds further weakens the applicant's bargaining power.
>
> This can be illustrated by comparing what each party must do if it considers that the other has acted in bad faith:
>
> - If an applicant considers that the service provider has acted in bad faith, it must devote the resources to commencing and pursuing an access dispute alleging bad faith. This requires substantial resources and is not a step lightly taken.
> - In contrast, if there is a "good faith" obligation on an applicant and the service provider considers that it has been breached the service provider can simply cease processing an application. Once again the practical onus will be on the applicant to mount an access dispute if it disagrees with the service provider's characterisation.
>
> Because it is always up to the applicant to "drive" the process, each additional subjective discretion granted to the service provider increases its bargaining power and hence increases the risk that an applicant will be forced in practice to accept a non-optimal result.

[417] Access arrangement information, Appendix 8, page 3.

> If an applicant does in fact act, or attempt to act, in bad faith, there are other control mechanisms available to the service provider in the AQP, for example bypass.[418]

Authority's Assessment

1439. Western Power has proposed a variation to a Model AQP clause which requires applicants to negotiate in good faith and to expect to proceed to "signed access contracts". The Authority considers the proposed variation is material as it introduces an additional obligation for applicants to comply with.

1440. The Access Code definition for "applicant" refers to a party which seeks to establish or modify an access contract. Therefore, the Authority considers that an applications and queuing policy can only relate to applications made by an applicant where they expect, in good faith, to proceed to an access contract. As such, Proposed AQP clause 1.4(a) does not comply with section 5.7(b) of the Access Code as it adds an additional element to an understood and accepted interpretation of the applications and queuing policy process.

1441. In addition, the Authority notes Western Power Generation's concerns in relation to the costs borne by an applicant for potential breaches of "good faith" where either the applicant or Western Power breaches that requirement. It appears to the Authority that the inclusion of a "good faith" requirement adds a layer of uncertainty to what is intended to be a mechanical process. For the reasons above, and having regard to the Model AQP, the Authority considers that the proposed variation is inconsistent with the requirements of section 5.7(a) of the Access Code.

Required Amendment 114

Western Power to amend the proposed applications and queuing policy to reproduce model applications and queuing policy clause A2.4 (Applications to be made in good faith) without material omission or variation.

Application of the policy (Proposed AQP clause 1.5)

Western Power's Proposal

1442. Proposed AQP clause 1.5 includes a provision, for which there is no equivalent in the Model AQP, that any reference to an application for a covered service also refers to an increase in capacity of an existing covered service and to a material change in the technical characteristics of facilities and equipment connected at an existing contracted point.

1443. Western Power submitted:

> The policy is applicable to applications for new connections, increased capacity and a change of the technical characteristics of facilities at an existing contracted point,

[418] Western Power Generation, page 4.

all of which potentially affect network quality, reliability and security and which therefore require a consistent application and queuing process.[419]

Interested Party Submissions

1444. The Authority has not received any public submissions.

Authority's Assessment

1445. Western Power has included an additional clause which requires that an application (under the policy) be made in relation to capacity increases and material changes to the technical characteristics of facilities and equipment. The Authority considers the proposed variation is material as it alters the application of the Proposed AQP.

1446. Western Power has proposed equivalent provisions in the ETAC, requiring that an application be made under the applications and queuing policy:

- ETAC clause 3.6 provides that a user may not increase capacity unless the user makes application under either the AQP, the customer transfer code, or the ETAC as applicable; and
- ETAC clause 12(b) that the user must not materially modify such facilities and equipment without first making a successful application under the AQP.

1447. In its assessment of the relevant ETAC provisions, the Authority did not consider that Western Power's proposals met the Access Code requirements.

1448. The effect of the Authority's draft decision in relation to the ETAC is that there will be no requirement for a user to make an application under the Proposed AQP in the circumstances referred to in Proposed AQP clause 1.5.

1449. As capacity increases and changes to facilities and equipment are not subject to the applications and queuing policy, the Authority considers that the proposed addition to the Model AQP is inconsistent with sections 5.7(a) and (b) of the Access Code and the Code objective.

Required Amendment 115

Western Power to delete proposed applications and queuing policy clause 1.5 (Application of the policy).

Types of covered service (Proposed AQP clause 1.6)

Western Power's Proposal

1450. Proposed AQP clause 1.6 includes a provision, for which there is no equivalent in the Model AQP, that the Proposed AQP applies specifically to the most commonly sought covered services which are an exit or entry service, a connection service or

[419] Access arrangement information, Appendix 8, page 3.

both. Further, the provision requires parties to act in accordance with the AQP in relation to an application for a non-reference service.

1451. Western Power submitted:

> The policy also contains a general provision that the principles of this policy should be followed in circumstances where an arrangement is sought that is not expressly envisaged in this policy.
>
> The model policy assumes that a single application would address both connection services and electricity transfer services. In order to maintain consistency with the proposed SAC structure and to best meet the Code objectives, Western Power's applications and queuing policy contains a new section which recognises that the application for a connection service may be a separate process to an application for the electricity transfer service. Flow charts describing particular examples of types of application processes are provided in a schedule to the policy, for information. The policy clarifies that a connection service and an electricity transfer service must be applied for at each point and since these may be provided in accordance with two separate contracts, the policy allows for more than one application in such circumstances.[420]

Interested Party Submissions

1452. Western Power Generation submitted:

> Clause I.6(b) of the AQP specifies that applications for non-reference services should be treated, as far as applicable, in accordance with the AQP. This is confusing given that non-reference services fall within the definition of class 3 applications. This should be clarified.
>
> The AQP does not make provision for users to lodge a capacity increase notice. How would a user apply for a capacity increase for a non-reference service? It appears that such an application would be a class 3 application, which may not be appropriate.[421]

Authority's Assessment

1453. Western Power has included an additional provision which limits the application of the Proposed AQP. The Authority considers that additional provision is a material inclusion as it narrows the application of the Proposed AQP from the covered services accommodated under the Model AQP.

1454. The Access Code requires an applications and queuing policy to apply to covered services. Covered services include reference and non-reference services, but do not include excluded services. Consequently, the inclusion of a clause which attempts to restrict the application of the proposed policy to entry, exit or connection services is inconsistent with sections 5.7(a) and (b) of the Access Code and the Code objective as it may operate to exclude other covered services.

[420] Access arrangement information, Appendix 8, page 3.

[421] Western Power Generation, page 5.

Required Amendment 116

Western Power to delete proposed applications and queuing policy clause 1.6 (Types of covered service).

One contract per contracted point (Proposed AQP clause 2.1)

Western Power's Proposal

1455. Proposed AQP clause 2.1 includes a provision, for which there is no equivalent in the Model AQP, that each contracted point must be included in one and only one electricity transfer contract to allow the transfer of electricity at that contracted point.

1456. Western Power submitted:

> Further modifications to the model applications and queuing policy also clarify that every exit and entry point must be listed in an electricity transfer contract with Western Power before any new connection can be energised.
>
> The policy also clarifies that any contracted point can only exist in one electricity transfer contract for any period. This does not preclude an electricity transfer contract containing many contracted points, but the clarification allows for an orderly market that can be accurately recorded within market systems.[422]

Interested Party Submissions

1457. Alinta submitted:

> … that this provision appears to be inflexible and inconsistent with the Code objective because it will prevent the development of arrangements under which multiple users transfer electricity at connection points.[423]

Authority's Assessment

1458. Western Power has included an addition provision which restricts each connection point to being included in only one access contract. The Authority considers that this additional provision is a material inclusion as multiple consumers or users could potentially contract at the same connection point.

1459. Requiring only one access contract to apply at a particular connection point may limit entry onto the network, thus inhibiting the promotion of competition upstream and downstream of the network. As such, the Authority considers that Proposed AQP clause 2.1 is inconsistent with the Code objective.

[422] Access arrangement information, Appendix 8, page 4.

[423] Alinta, page 57.

Required Amendment 117

Western Power to delete proposed applications and queuing policy clause 2.1 (One contract per contracted point).

Must be a wholesale market participant to transfer electricity (Proposed AQP clause 2.2)

Western Power's Proposal

1460. Proposed AQP clause 2.2 includes a provision, for which there is no equivalent in the Model AQP, that an applicant who seeks an electricity transfer contract must be, or intend to be, a wholesale market participant at the time the electricity transfer is to take place.

1461. Western Power submitted:

> Western Power has also included a provision that requires all applicants seeking a right to transfer electricity (that is, an exit or entry service) to demonstrate that they are market participants (or demonstrate that they intend to become market participants, for example, by lodging an application to the Independent Market Operator). The introduction of this provision follows advice from the Independent Market Operator that this provision will assist in market settlement and thereby facilitate an orderly, non-discriminatory market.[424]

Interested Party Submissions

1462. The Authority has not received any public submissions.

Authority's Assessment

1463. Western Power has included an additional provision which restricts the application of the policy to market participants. The Authority considers the additional provision is a material inclusion as it broadens the application of the Proposed AQP beyond the Model AQP.

1464. The Market Rules require a person who "owns, controls or operates" facilities within the SWIS to register as a rule participant.

1465. Only those applicants who seek to participate in the wholesale market – and are therefore required to be registered – need to demonstrate that they are "market participants". The Authority is satisfied, having regard to the Code objective, that the Market Rules adequately deal with these issues. The outcome of the Proposed AQP including additional requirements relating to market registration will be the potential for inconsistency and duplication between the two instruments.

[424] Access arrangement information, Appendix 8, page 3.

1466. For the reasons above, and having regard to the Model AQP, the Authority considers that the provision is inconsistent with sections 5.7(a) and (b) and the Code objective.

Required Amendment 118

Western Power to delete proposed applications and queuing policy clause 2.2 (Must be a wholesale market participant to transfer electricity).

Requested capacity must match actual requirement (Proposed AQP clause 2.3)

Western Power's Proposal

1467. Proposed AQP clause 2.3 includes a provision, for which there is no equivalent in the Model AQP, that an applicant for an entry or exit service (clause 2.3(a)) or a connection service (clause 2.3(b)) must not apply for a greater capacity than is reasonably required by the facilities installed or to be installed at the contracted point.

1468. Western Power submitted:

> A general requirement for applicants to only apply for the capacity they need, so as not to tie up existing capacity unnecessarily and avoid over investment in the network.[425]

Interested Party Submissions

1469. Alinta submitted:

> Alinta submits that clause 2.3 of the AQP should be removed from the document. There is no equivalent provision in the Model AQP to clause 2.3 of the AQP. Alinta considers that clause 2.3 of the AQP does not accommodate the interests of users and applicants and therefore is inconsistent with section 5.7 of the Code. Alinta also queries whether the proposed provision is consistent with the Code objective.
>
> Alinta suggests that applicants should be allowed the flexibility to apply for a greater capacity than is required by the installed facilities (or to be installed within a reasonable period) and does not accept that Western Power, in its capacity as a service provider, has a legitimate interest in improving the constraints that are inherent in clause 2.3.
>
> In addition, the AQP does not define what "reasonable period" means. An applicant may plan to install a number of generators at a particular site in a staged process. Under clause 2.3, the applicant may be required to make multiple access applications, when it would be practical and reasonable for the applicant to make one access application at the start of the project.[426]

[425] Access arrangement information, Appendix 8, page 3.

[426] Alinta, page 52.

Authority's Assessment

1470. Western Power has included an additional provision which places obligations on an applicant in relation to the capacity applied for. The Authority considers the proposed addition is a material inclusion as it imposes additional threshold tests on an applicant.

1471. The Authority considers that Proposed AQP clause 2.3(a) restricts an applicant's ability to apply for capacity beyond that which they reasonably require. While the Authority considers that this is a material addition it is arguably consistent with the requirements of section 5.7 of the Access Code and the Code objective in ensuring that competition is encouraged and the network is efficiently utilised. It is noted that chapter 10 of the Access Code provides a framework for dealing with any disputes in relation to access applications, limiting the likelihood that this provision could operate in an anti competitive manner.

1472. Proposed AQP clause 2.3(b) restricts an application for a connection service to only that capacity reasonably required. If the applicant for a connection service is not also applying for a transfer service, then the applicant will not have any capacity requirements. If, however, the applicant is also applying for capacity then the restriction to only seek capacity sufficient to meet the applicant's reasonable requirements is dealt with by Proposed AQP clause 2.3(a). Consequently Proposed AQP clause 2.3(b) is inconsistent with section 5.7(b) of the Access Code as it is not sufficiently detailed to enable applicants and users to understand how the Proposed AQP will operate.

Required Amendment 119

Western Power to delete proposed applications and queuing policy clause 2.3(b) (Requested capacity must match actual requirement).

Applying for a new connection (Proposed AQP clause 2.4)

Western Power's Proposal

1473. Proposed AQP clause 2.4 includes a provision, for which there is no equivalent in the Model AQP, that Western Power must not energise a new contracted point until a variety of matters relating to the contracted point listed in Proposed AQP clause 2.4 have been completed.

1474. Western Power submitted:

> Further modifications to the model applications and queuing policy also clarify that every exit and entry point must be listed in an electricity transfer contract with Western Power before any new connection can be energised.[427]

[427] Access arrangement information, Appendix 8, page 4.

Interested Party Submissions

1475. The Authority has not received any public submissions.

Authority's Assessment

1476. Western Power has included an additional provision which relates to the energisation of an access contract. The Authority considers the additional provision is a material inclusion as it purports to broaden the scope of an applications and queuing policy to matters dealt with in an access contract.

1477. An applications and queuing policy is defined in the Model AQP as "a policy in an access arrangement setting out the access application process under section 5.1(g)". Further, an access application is defined in the Model AQP as "an application lodged with a service provider under an access arrangement to establish or modify an access contract and includes any additional information provided by the applicant in relation to the application".

1478. These definitions convey the intent that an applications and queuing policy is a policy regulating the application process and not the relationship between the service provider and the applicant once the application process has been completed. The Authority considers that the proposed clause, which seeks to regulate the process of Western Power energising an access contract is a matter that by definition arises only after the application process has been completed. Such a provision would be more appropriately located in an access contact.

1479. Therefore, the Authority concludes that the inclusion of the proposed clause is inconsistent with section 5.7 of the Access Code because the Proposed AQP would then deal with a matter not properly within the definition of an applications and queuing policy.

Required Amendment 120

Western Power to delete proposed applications and queuing policy clause 2.4 (Applying for a new connection).

Class 1 application (Proposed AQP clause 3.2; Model AQP clause A2.5)

Western Power's Proposal

1480. Model AQP clause A2.5 defines a class 1 application. This is an application by an existing user in respect of one or more connection points that does not require augmentation and where the user only seeks a reference service at the reference tariff.

1481. The proposed definition of a class 1 application under the Proposed AQP clause 3.2 varies from the Model AQP definition in the manner explained by Western Power in its access arrangement information:

> Class 1 has been further defined to clarify:

- that it only includes applications by an existing user seeking to modify an existing contract (rather than seeking a new contract);
- that a reference service includes the standard tariff, service level and contract; and
- that no detailed studies are required, as this is more relevant to the application process than whether an augmentation is required.

A note is made to the effect that a class 1 application might include an increase in capacity.

Western Power believes that these refinements uphold the intent of the model policy whilst providing greater understanding to applicants.[428]

Interested Party Submissions

1482. Alinta submitted:

> Alinta submits that the AQP should be amended to be consistent with the Model AQP by:
>
> - providing for "capacity increase notices" (as set out in clauses A2.30 to A2.40 of the Model AQP) where an existing user seeks to increase their capacity at a contracted point under an access contract; and
> - amending the definition of "class 1 application" to remove the reference to modifying an existing contract.
>
> Alinta considers that it is unreasonable for an existing user, which is already known to Western Power, to be required to provide a detailed application form and be processed under more demanding provisions when it is merely seeking to increase its capacity under an existing access contract. The "capacity increase notice" will allow Western Power to obtain sufficient information to form a view as to whether or not it accepts the capacity increase. Further, the AQP does not accommodate the interests of users as it does not provide for Western Power to be required to accept a user's capacity increase request in the circumstances set out in clause A2.32.[429]

Authority's Assessment

1483. Western Power has proposed a variation which requires users to lodge a class 1 application under the Proposed AQP for capacity increases. The Authority considers the proposed variation is material as it duplicates (and conflicts with) the provisions under the SAC relating to capacity increase notices.

1484. The effect of the Authority approving the variation to Model AQP clause A2.5(a) to include in the definition of a class 1 application any application to vary an existing contract would result in an existing user making application under the applications and queuing policy in respect of minor amendments which are dealt with through other means under the Model AQP or MAC. For example, under the Model AQP a change to capacity could be accommodated by a capacity increase notice. As submitted by Alinta, Western Power's variation imposes significantly more stringent demands upon existing users.

[428] Access arrangement information, Appendix 8, page 4.

[429] Alinta, page 53.

1485. The Authority also notes that the capacity increase notice only applies where there is no network augmentation required nor is there an impediment for Western Power in providing capacity to another applicant in the queue.

1486. For the reasons above, and having regard to the Model AQP, the Authority considers that the proposed variation is inconsistent with the requirements of section 5.7(a) of the Access Code and the Code objective as it does not accommodate the interests of users and applicants.

Required Amendment 121

Western Power to amend proposed applications and queuing policy clause 3.2(a) (Class 1 application) to reproduce model applications and queuing policy clause A2.5(a) without material omission or variation.

Misclassification of an application (Proposed AQP clause 3.5; Model AQP clause A2.8)

Western Power's Proposal

1487. Model AQP clause A2.8 makes provision for a service provider to reclassify an application that is initially misclassified by the service provider. The related clause in the Proposed AQP clause 3.5 is limited to reclassification from class 1 or class 2 to class 3, unlike the Model AQP which allows for reclassification of all classes of application.

1488. Western Power submitted:

> Finally, misclassification has been refined to apply only when moving from a class 1 or 2 to a class 3 application. This refinement enables Western Power to recover costs and time spent initially processing a class 1 or 2 application as a class 3 application.[430]

Interested Party Submissions

1489. The Authority has not received any public submissions.

Authority's Assessment

1490. Western Power has proposed a variation which restricts the misclassification of applications to class 1 and 2 only. The Authority considers the proposed variation is material as it erodes the ability under the Model AQP for other misclassified applications to be corrected.

1491. The intent of the Model AQP provision is to ensure that applicants do not lose their position in the queue through misclassification. The effect of the amendment would be to require an applicant whose class 1 or 2 application has been misclassified as a class 3 application to reapply and therefore lose priority which it would otherwise

[430] Access arrangement information, Appendix 8, page 4.

have enjoyed had the application not been misclassified. Therefore, some applicants are disadvantaged in the event they are misclassified. Western Power's submission does not explain why there is any difference in its cost recovery under the proposed variation.

1492. For the reasons above, and having regard to the Model AQP, the Authority considers that the proposed variation is inconsistent with the requirements of section 5.7(a) of the Access Code which requires the applications and queuing policy to the extent reasonably practicable to accommodate the interests of the service provider and of users and applicants.

Required Amendment 122

Western Power to amend proposed applications and queuing policy clause 3.5 (Misclassification of an application) to reproduce model AQP clause A2.8 without material omission or variation.

Western Power may require costs (Proposed AQP clause 4.2)

Western Power's Proposal

1493. Model AQP clause A2.9 provides for an applicant to contact the service provider to discuss matters including what system or other studies are required in the processing of the application. Proposed AQP clause 4.1 is the related provision. Proposed AQP clause 4.2, for which there is no equivalent in the Model AQP, then allows Western Power to recover costs where an applicant requests Western Power to perform studies of the kind referred to in Proposed AQP clause 4.1.

1494. Western Power submitted:

> In the event that work is required to be done to determine such matters, a clause has also been inserted, enabling Western Power to recover costs, should it be requested by the applicant to assist with matters relevant to the future application, such as providing input to feasibility studies.[431]

Interested Party Submissions

1495. Newmont submitted:

> Clauses 4.2 and 6.2 Western Power May Require Costs - Applicants should have the right to participate fully in the interconnection studies, and to request a practical degree of independent review of these studies. This participatory approach to system studies may minimise the occurrences of dispute requiring costly arbitration.[432]

[431] Access arrangement information, Appendix 8, page 5.

[432] Newmont, page 5.

1496. WASEA submitted:

> The issue that has been of most concern to date has been the requirement for Western Power to undertake system studies for the purpose of assessing system capacity. In the past, these have been very costly. We note that a new test is proposed by Western Power relating to the costs that may be charged for this service. We consider that the Authority should be concerned to inquire about the real difference that this will make to the ultimate costs for this service that remains in-house and may not be substitutable by an external provider of such services. The costs for these and other services provided as part of the application process may be payable up front and impose a significant burden on renewable energy proponents seeking access. WA SEA requests that the network application fee be sensitive to the small scale nature of many renewable energy projects and the fact that they are often developed by non traditional energy sector companies including community based groups with limited capital. Innovative payments schemes or reduced rates for renewable energy projects will assist in the delivery of community and government renewable energy objectives. This will increase the diversity of the state's generation portfolio and encourage participation by a wider cross section of the community.[433]

1497. Western Power Generation submitted:

> Clause 4.2 of the AQP should provide that Networks must seek the applicant's consent before it incurs costs.[434]

Authority's Assessment

1498. Western Power has included an additional provision which allows it to recover costs it has incurred during the application process. The Authority considers the proposed addition is material as introduces further obligations on parties to the application process.

1499. The proposed clause seeks to ensure that Western Power is not requested to undertake studies or initial work without reimbursement from the applicant.

1500. It is anticipated that any costs incurred by Western Power in relation to studies undertaken through the applications process will be incorporated into the costs negotiated under the access contract. However, should an applicant not enter into an access contract with Western Power following the results of those studies, Western Power is at risk of having incurred those costs without appropriate recompense.

1501. Interested parties have expressed a desire to have studies undertaken in collaboration, or at least ensure that the applicant provides its consent to the payment of costs prior to incurring them. The Authority considers that these are reasonable requests and may help facilitate a more transparent process. The Authority considers there is value in ensuring applicants are offered the opportunity to seek independent advice, are aware of costs incurred through the studies and are satisfied that Western Power is acting reasonably, in accordance with good electricity industry practice and seeking to achieve the lowest practicable cost.

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[433] WASEA, page 4.

[434] Western Power Generation, page 5.

1502. The Authority considers that the proposed clause is inconsistent with section 5.7(a) of the Access Code because it:

- limits the application of the clause to Western Power determining the costs without consultation with the applicant; and
- does not provide an opportunity for alternate parties to undertake the studies.

Required Amendment 123

Western Power to delete proposed applications and queuing policy clause 4.2 (Western Power may require costs).

Class 1 and 2 application costs (Proposed AQP clause 6.1; Model AQP clause A2.13)

Western Power's Proposal

1503. Model AQP clause A2.13 provides that an applicant must pay the lodgement fee for a class 1 or 2 application prescribed in clause A2.14. Model AQP clause A2.14 provides for inclusion of a fee for a class 1 and 2 application respectively referred to as a variable, *[x]*. Notes 2 and 3 to the Model AQP (which are in identical terms) provide as follows in relation to the completion of these variables:

> To be inserted when the model applications and queuing policy is incorporated into an access arrangement. The value inserted for variable [x] may be expressed as a single value or by a more sophisticated structure for example a range of numbers but should not exceed a forecast of reasonable costs which would be incurred by a service provider acting as a reasonable and prudent person seeking to achieve the lowest practicable cost of processing an application of the relevant class in relation to the relevant network.

1504. The Proposed AQP does not specify fees but rather, in Proposed AQP clause 6.1, provides for Western Power to publish fees from time to time.

Interested Party Submissions

1505. Alinta submitted:

> Therefore, under the AQP, the lodgement fees are uncertain and at the discretion of Western Power. Alinta submits that Western Power should set out the price for lodging a "class 1 application" and a "class 2 application". The proposed clause 6.1 does not accommodate the interests of users and is not sufficiently detailed to enable users and applicants to understand in advance how the AQP will operate in relation to the important issue of application fees.[435]

[435] Alinta, page 54.

Authority's Assessment

1506. Western Power has proposed a variation which makes the lodgement fee a fee which is "published from time to time", rather than a fee approved under the access arrangement. The Authority considers the proposed variation is material as it confers discretion upon Western Power to vary fees not envisaged under the Model AQP.

1507. This proposal would provide Western Power with discretion in relation to the determination of the relevant fee. This is considered to be inconsistent with the instructions for completion of the clause in the Model AQP, where the Model AQP contemplated lodgement fees being approved by the Authority under the access arrangement, rather than determined by the service provider from "time to time".

1508. For the reasons above, and having regard to the Model AQP and the note attaching to the provision in question, the Authority considers that the proposed variation is inconsistent both with section 5.7(b) of the Access Code and with the Code objective.

Required Amendment 124

Western Power to amend proposed applications and queuing policy clause 6.1 (Class 1 and 2 application costs) to reproduce model applications and queuing policy clause A2.13 without material omission or variation.

Lead times for applications (Proposed AQP clause 6.4; Model AQP clause A2.20)

Western Power's Proposal

1509. Model AQP clause A2.20 provides, for each class of application, a minimum length of time prior to the requested services start date within which the applicant must endeavour to lodge an application to the service provider. In the case of class 1 or 2 applications Model AQP clause A2.20 provides for a period of "at least *[x]*" business days. Notes 4 and 5 to the Model AQP make provision for the completion of these variables including that the period is not to exceed 25 business days (or 10 business days where services are to be added to an existing access contract). In respect of class 3 applications Model AQP clause A2.20 provides for a reasonable time having regard to certain factors.

1510. The related clause is Proposed AQP clause 6.4 which provides for the applicant to endeavour to lodge within a reasonable time for each class and in clause 6.4(a), (b) and (c) specifying certain matters which must be considered by the applicant in determining what is reasonable. These matters are not referred to in the Model AQP clause.

1511. Western Power submitted:

> It is recognised that lead times will vary with a number of factors, including use of non-standard terms, or whether augmentation studies are required.

> Nevertheless it is considered good practice to set some realistic expectations among applicants and the policy has included clauses setting minimum lead times for class 1 and class 2 applications.
>
> The clause on lead times for applications has been designed to encourage applicants to consider their access needs in a timely fashion within their overall project.[436]

Interested Party Submissions

1512. Office of Energy submitted:

> There should be a greater commitment to the specification of timeframes within which the Corporation must use reasonable endeavours to process access applications. For example, s.6.4 sets out lead times that should be observed by applicants but it does not appear that a corresponding commitment for Western Power to respond within the same time frame is made.
>
> The absence of any lead time or even an indication as to a potential timeframe, in relation to a class 3 application is a serious concern.[437]

Authority's Assessment

1513. In relation to the specification of the lead times for class 1 and 2 applications, the timeframes specified in Proposed AQP clause 6.4(i) and (ii) are consistent with the timeframes contemplated in the Model AQP.

1514. While class 1 applications are all specified as having lead times of 10 business days (rather than 25 business days in situations where the application is not for services added to an existing access contract), the Authority recognises that section 5.7(c) only requires the applicant to use "reasonable endeavours" to meet the timeframes.

1515. For the reasons above, the Authority is satisfied that the proposal completes the matters left for completion in Model AQP clause A2.20 in a manner consistent with the relevant instructions, the Code objective and section 5.7 of the Access Code.

Commencing the application process (Proposed AQP clause 7.1; Model AQP clauses A2.21 and A2.22)

Western Power's Proposal

1516. Model AQP clause A2.21 provides that the access application process is commenced by the applicant giving a written application to the service provider on the relevant form, using reasonable endeavours to accurately and completely address each item in the application form. Model AQP clause A2.22, amongst other things, provides for the form to be included in the access arrangement.

1517. The Proposed AQP clause 7.1 includes an additional requirement for the provision of supporting information with an application form. The Proposed AQP provides for the application form to be as provided on Western Power's website and not in a form accompanying the access arrangement.

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[436] Access arrangement information, Appendix 8, page 5.

[437] Office of Energy, page 4.

1518. Western Power submitted:

> The application forms will be web based, and reasonably specific to the type of applicant to reduce each party's administrative workload.[438]

Interested Party Submissions

1519. The Authority has not received any public submissions.

Authority's Assessment

1520. Western Power has proposed a variation which requires additional information to be provided by the applicant, as well as having the application form published on Western Power's website rather than as approved in its access arrangement. The Authority considers the variation is material as it broadens the scope of information which the Model AQP envisaged an applicant supplying.

1521. The Model AQP anticipated the form being approved as part of Western Power's access arrangement, so that applicants would be able to make submissions on the proposed form and know with sufficient certainty the requirements specified. By proposing to have the application form published on Western Power's website, it is considered that the application form could be updated within an access arrangement period, thus removing the certainty afforded to applicants under the Model AQP. This is inconsistent with section 5.7(b) of the Access Code.

1522. It is also noted that Western Power has proposed to include an additional element in parenthesis requiring supporting information to be provided with the application form. This is not required under the related provision of the Model AQP. Further, there is no definition of "supporting information", and which is therefore not sufficiently detailed and complete for users and applicants to understand how the applications and queuing policy will operate. This is inconsistent with section 5.7(b) of the Access Code.

Required Amendment 125

Western Power to amend proposed applications and queuing policy clause 7.1 (Commencing the application process) to reproduce model applications and queuing policy clause A2.21 without material omission or variation.

Information required with the application for each requested contracted point (Proposed AQP clause 7.2(c); Model AQP clause A2.22(g))

Western Power's Proposal

1523. Model AQP clause A2.22 specifies the required information in the application form, which must be included in the service provider's access arrangement. Model AQP clause A2.22(g) sets out the required information in relation to each requested

[438] Access arrangement information, Appendix 8, page 6.

connection point. Proposed AQP clause 7.2(c) requires the form to contain substantially more information in respect of each requested connection point.

1524. Western Power submitted:

> Several changes have been made to the information required on the application forms to enable Western Power to be flexible to meet different needs:
>
> Applicants will be encouraged to understand their obligations under the technical rules prior to lodging their applications, in order to assist users in planning and determining specifications. This is intended to avoid delays caused by late requests for derogations or alterations.
>
> The section on capacity has been changed to recognise for example that generators can be installed at exit points.
>
> Forecast consumption has been specified as a requirement so that for example contestability can be determined. This requirement also provides Western Power with information to enable it to confirm the appropriateness of a particular requested reference service.
>
> A refinement of the model policy includes a requirement to include a forecast annual consumption of electricity (if applicable). This is consistent with A2.24 of the model AQP.[439]

Interested Party Submissions

1525. Western Power Generation submitted:

> Clause 7.2 of the AQP requires that an applicant provide a significant amount of information with its application, some of which goes beyond what is required in the MAQP. In particular, Generation submits that:
>
> - clause 7.2(c)(iv) effectively requires the applicant to warrant that its proposed facilities and equipment meet the Technical Rules - this is double regulation and covers matters that fall outside the scope of the AQP;
> - clause 7.2(c)(vi) effectively requires that every contracted point will have a controller. This requirement is not present in the MAQP. In any event the stipulation of a controller is a contractual matter; this level of prescription is not appropriate in an AQP.[440]

Authority's Assessment

1526. Western Power has proposed a variation which broadens the information the applicant must provide to Western Power. In the view of the Authority, this adds to the obligations of an applicant and is consequently a material variation.

1527. The Authority considers that the requirement to include the information as in Proposed AQP clause 7.2(c) is inconsistent with section 5.7 of the Access Code and the Code objective, for the following reasons:

- Proposed AQP clause 7.2(c)(ii) requires provision of the location of a unique market identifier (UMI), in contrast to the related provision of the Model AQP which requires in general terms the provision of information as to the location or meter number of each requested connection point. The identifier used

[439] Access arrangement information, Appendix 8, page 6.

[440] Western Power Generation, page 5.

under the Metering Code, that the Authority understands is the recognised industry standard, is a national market identifier (NMI). The Authority is not satisfied that the use of the UMI as the relevant identifier is consistent with section 5.7(b) of the Access Code as it introduces a concept not in general usage in the industry.

- Proposed AQP clauses 7.2(c)(iv) and (v) require the provision of certain information relating to the technical rules and exemptions sought in relation to the technical rules. The Authority notes that the mechanisms for provision of information in relation to these matters are dealt with in chapter 12 of the Access Code and the technical rules. The Authority is not satisfied that the additional requirements to provide information in relation to the technical rules under the AQP are consistent with section 5.7(b) of the Access Code.
- Proposed AQP clause 7.2(c)(vi), places a requirement on users to provide information on nominated controllers, rather than to provide an option to provide information as envisaged under the Model AQP. The Authority considers this affects the interests of the applicant. Therefore, the Authority is not satisfied that the provision is consistent with section 5.7(a) of the Access Code which requires the applications and queuing policy to accommodate the interests of all parties including applicants.

1528. For the reasons above, and having regard to the Model AQP, the Authority does not consider that the proposed variations in Proposed AQP clause 7.2(c)(ii), (iv), (v) and (vi) are consistent with section 5.7 of the Access Code or the Code objective.

Required Amendment 126

Western Power to amend proposed AQP clause 7.2(c) (Information required with the application for each requested contracted point) by:

- replacing the reference to a unique market identifier in clause 7.2(c)(ii) to a reference to a national market identifier;
- deleting clauses 7.2(c)(iv) and (v); and
- amending clause 7.2(c)(vi) to reproduce model AQP clause A22(g)(ii),

without material omission or variation

Information required with each application where works may be required to provide the requested covered service (Proposed AQP clause 7.2(d); Model AQP clause A2.22(h))

Western Power's Proposal

1529. Model AQP clause A22.2(h) allows an applicant to choose to include in the application the applicant's preliminary proposal in relation to the form of a capital contribution and the proposed terms on which such contribution may be made.

1530. Proposed AQP clause 7.2(d)(i) requires an applicant to make a preliminary proposal rather than being entitled to choose to do so. The information to be

provided under such a proposal, if applicable, must include information about any deviation from the IWA under Proposed AQP clause 7.2(d)(ii).

Interested Party Submissions

1531. Western Power Generation submitted:

> Clauses 7.2(b) and (d) of the AQP require a significant amount of detail to be provided. It is unlikely (and unreasonable to require) that an applicant would be able to provide this level of detail at such an early stage.[441]

Authority's Assessment

1532. The variation imposes a requirement under Proposed AQP clause 7.2(d)(i) for the applicant to provide information on a required capital contribution rather than to provide an option to provide the information afforded under Model AQP clause A2.22(h). The Authority considers this variation to be material removes an option available to the user under the MAC.

1533. Western Power's proposal requires the applicant to nominate its preferred method of payment of a capital contributions should one be required. The Authority considers that a user may not be in a position to provide its preference for the method of contribution it will elect until the size and nature of the capital contribution is known. The Authority considers that requiring an applicant to provide that information in its application may frustrate section 5.7(c) of the Access Code by the applicant wanting to change its preferred manner of contribution at a later stage. The Authority also considers this variation does not accommodate the interests of applicants, which is inconsistent with section 5.7(a) of the Access Code, as it removes an applicant's flexibility in relation to the method of payment of an applicable capital contribution.

1534. Additionally, as the Authority elsewhere required the deletion of the proposed IWA, a consequential amendment is required to delete Proposed AQP clause 7.2(d)(ii).

Required Amendment 127

Western Power to amend proposed applications and queuing policy clause 7.2(d) (Information required with each application where works may be required to provide the requested covered service) to:

- reproduce model applications and queuing policy clause 2.22(h) without material omission or variation; and
- delete Proposed AQP clause 7.2(d)(ii)

[441] Western Power Generation, page 5.

Errors or omissions in an application (Proposed AQP clause 7.4(c))

Western Power's Proposal

1535. Proposed AQP clause 7.4(c) provides that where Western Power has notified an applicant of a material error or omission in an application for a new service, then the applicant must amend the application within 5 business days or the application will be deemed to have been withdrawn.

1536. Western Power submitted:

> The proposed policy also requires any applicant who becomes aware of errors or omissions in the application to amend the application within 5 business days otherwise the application will be deemed to have been withdrawn. This is consistent with a more general statement in the model policy to make the amendment "as soon as practicable" but the additional specificity serves as a protection to other applicants not to be unreasonably or unnecessarily held up or otherwise inconvenienced by relevant applications.[442]

Interested Party Submissions

1537. Western Power Generation submitted:

> The timeframe in clause 7.4(c) of the AQP is inappropriately short and should be at least 20 business days.[443]

Authority's Assessment

1538. Western Power has included an additional provision which requires applicants to make amendments to applications within a specified timeframe. The Authority considers the proposal is material as it introduces an additional requirement for an applicant.

1539. Western Power's proposal to include a clause which specifies a time period within which an application must be amended is consistent with section 5.7(b) of the Access Code in providing users and applicants with an understanding of the manner in which the applications process will operate. However, the Authority considers that the timeframe of five business days is unreasonably short.

1540. The Authority considers that the proposal is inconsistent with section 5.7(c) of the Access Code which requires the applications and queuing policy to set out reasonable timelines for matters relating to the applications process.

Required Amendment 128

Western Power to amend proposed applications and queuing policy clause 7.4(c) (Errors or omissions in an application) to specify a reasonable timeframe.

[442] Access arrangement information, Appendix 8, page 5.

[443] Western Power Generation, page 6.

When bypass is permitted (Proposed AQP clause 8.4; Model AQP clause A2.51)

Western Power's Proposal

1541. Model AQP clause A2.51 provides that bypass (i.e. where service provider may depart from the first come, first served principle) is allowed to the extent necessary to better achieve the Code objective. Proposed AQP clause 8.4 includes the Model AQP provision but specifies three additional circumstances in which bypass is permitted (i.e. 8.4(b) supplier of last resort, 8.4(c) default supplier and 8.4(d) direction by Authority).

1542. Western Power submitted:

> The policy has been amended to allow the first-come first-served principle to be bypassed to allow a Retailer of Last Resort to meet its obligations under part 5 of the Act, or to allow a default supplier to meet its obligations under part 59 of the Act or if directed by the Authority.
>
> Bypass also deals with the special case of an obligation to comply with any direction from the Authority such as might arise from a reserve capacity auction. In such cases, Western Power would expect to liaise as necessary with the Authority and the IMO.[444]

Interested Party Submissions

1543. Newmont submitted:

> The concept of Bypass provides Western Power with some flexibility to deviate from the first come first served principle. However, more explicit tests for applications to retain their priority are recommended.[445]

1544. Alinta submitted:

> Alinta is concerned about the proposal that the ERA be able to give a direction to bypass the queue for 2 reasons. First, the possibility of a regulatory agency intervening in capacity allocations would seem to be inconsistent with the Code objective, introduce uncertainty for users and applicants, and could lead to situations in which the ERA is asked to pick winners and losers. Second, Alinta is unclear as to whether the ERA would have the jurisdiction to accept such a role.[446]

Authority's Assessment

1545. Western Power has proposed a variation by introducing an additional way in which a user can bypass the first come, first served principle. This is to seek the Authority's approval for bypass. The Authority considers that the proposed variation is material as it confers a role on the Authority not envisaged under the Model AQP.

1546. The Authority notes the views expressed by interested parties and agrees that it would be inappropriate for the Proposed AQP to give the Authority the power to intervene in relation to bypass. The role of the Authority is to approve an

[444] Access arrangement information, Appendix 8, page 6.

[445] Newmont, page 5.

[446] Alinta, page 55.

applications and queuing policy that achieves the requirements of the Access Code and the Code objective. Beyond that there is no role for the Authority to intervene in individual applications to determine whether bypass concessions should apply. To do so would be an extension of the Authority's role which is not appropriate or reasonable.

1547. For the above reasons, and having regard to the Model AQP, the Authority considers the Proposed AQP clause 8.4(d) is inconsistent with section 5.7(b) of the Access Code.

Required Amendment 129

Western Power to delete proposed applications and queuing policy clause 8.4(d) (When bypass is permitted).

Western Power may bypass after fresh determination (Proposed AQP clause 8.7; Model AQP clause A2.54)

Western Power's Proposal

1548. Model AQP clause A2.54 provides for inclusion in the access arrangement of a minimum waiting period – denoted by the variable *[x]* – after issuing a bypass notice after which a service provider must make a fresh determination. Note 8 to the Access Code says the following in relation to the completion of this variable:

> To be inserted when the model applications and queuing policy is incorporated into an access arrangement. Unless the Authority considers that the Code objective and the objectives in section 5.7 require otherwise, the value inserted for variable [x] should not be less than 20.

1549. Proposed AQP clause 8.7 reproduces Model AQP clause A 2.54 and includes 20 days as the relevant period.

Interested Party Submissions

1550. The Authority has not received any public submissions.

Authority's Assessment

1551. Proposed AQP clause 8.7 is considered to be consistent with section 5.10(a) of the Access Code and has been completed in a manner consistent with the instructions for completion of the related provision in the Model AQP, as well as the requirements of section 5.7 of the Access Code and the Code objective.

Applications in relation to tender projects etc (Proposed AQP clause 8.9; Model AQP clauses A2.56 to A2.62)

Western Power's Proposal

1552. Model AQP clauses A2.56 to A2.62 set out specific requirements in relation to the priority to be given to applications in relation to tender projects. Proposed AQP

clause 8.9 provides Western Power with discretion to determine priority in such cases.

1553. Western Power submitted:

> A particular clause allows for Western Power, acting as a reasonable and prudent person, to treat two competing applications as having the same priority when it is practical to do so. There are as many actual examples where this is straight forward (eg technically similar competing bids under a tender for access at the same point for which there will be only one winner) as there are examples where this is extremely complex (eg competing applications at different points to provide generating capacity under a tender arrangement, but for which the losing tenderer might proceed with a development).[447]

Interested Party Submissions

1554. Alinta submitted:

> … under clause 8.9 of the AQP, it appears that it is not certain that tender related applications will be treated with the same priority.
>
> Alinta suggests that Western Power has wide discretion in clause 8.9 of the AQP when compared to clause A2.61 of the Model AQP. Alinta considers that Western Power's discretion should be limited in clause 8.9 of the AQP to allow Western Power to treat competing applications as having the same priority only where they are "project related applications" as defined in the Model AQP. Alinta also considers that clause 8.9 of the AQP is not sufficiently detailed to enable users and applicants to understand how the AQP will operate. Therefore, Alinta considers that clause 8.9 is inconsistent with clause 5.7(b) of the Code.[448]

Authority's Assessment

1555. Western Power has proposed a variation by introducing considerable discretion over the priority of tender projects. In the view of the Authority, the proposal is a material change to the process adopted in the Model AQP by providing Western Power with increased discretion as to the treatment of tender applications.

1556. The Model AQP clauses dealing with tender projects (A2.56 to A2.62) provide applicants with considerable certainty over how such applications will be treated, including the requirement under Model AQP A2.61 that all project related applications are to be treated as having the same priority.

1557. Sections 5.7(e) and 5.9 of the Access Code require the applications and queuing policy to include such provisions. The omission in Proposed AQP clause 8.9 of some elements relating to tender projects is inconsistent with those requirements.

1558. For the reasons above, and having regard to the Model AQP, the Authority considers that the proposal is inconsistent with section 5.7(a) of the Access Code and section 5.7(b) of the Access Code.

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[447] Access arrangement information, Appendix 8, page 6.

[448] Alinta, page 55.

Required Amendment 130

Western Power to amend proposed applications and queuing policy clause 8.9 (Applications in relation to tender projects etc) to reproduce model applications and queuing policy clauses A2.56 to A2.62 without material omission or variation.

Amending application to address necessary augmentation (Proposed AQP clause 9.2; Model AQP clause A2.72)

Western Power's Proposal

1559. Model AQP clause A2.72 provides that where an application would require an augmentation then at any time after the service provider provides the necessary information, the applicant may revise its application to add the terms of a works contract or a payment contract under the capital contributions policy.

1560. Proposed AQP clause 9.2 provides that at any time after Western Power provides the necessary information the applicant may revise its application to amend the applicant's preferred manner of contribution under the capital contributions policy.

Interested Party Submissions

1561. The Authority has not received any public submissions.

Authority's Assessment

1562. Western Power has proposed a variation by removing the option for a user to have a works contract for augmentations. In the view of the Authority, the proposal is material as it removes an option for the applicant to make an "in kind" contribution for an augmentation.

1563. The Model AQP afforded the opportunity for a works contract, thus allowing a payment "in-kind" for an augmentation. The variation is inconsistent with the Code objective because the removal of such flexibility may limit an applicant's ability to obtain access, thereby impeding competition upstream and downstream of the network.

1564. Further, the variation to include an amendment to the applicant's capital contributions policy assumes that there is already an agreed capital contribution in place. Should the applicant not have agreed a capital contribution the Proposed AQP does not offer the scope for an applicant to subsequently agree one.

1565. The absence of the ability to add to the application should a capital contribution be required is inconsistent with section 5.7(a) of the Access Code as it does not accommodate the interests of the applicant.

Required Amendment 131

Western Power to amend proposed applications and queuing policy clause 9.2 (Amending application to address necessary augmentation) to reproduce model applications and queuing policy clause A2.72 without material omission or variation.

Existing access contracts and determination of spare capacity (Proposed AQP clause 10.2)

Western Power's Proposal

1566. Proposed AQP clause 10.2 includes a provision, for which there is no equivalent in the Model AQP, in relation to the determination of spare capacity where existing access contracts may be renewed. Clauses 10.2(b) and (c) provide Western Power with discretion to decrease a user's capacity if the capacity provided under an existing contract is deemed by Western Power not to be reasonably necessary to satisfy the user's actual requirements.

Interested Party Submissions

1567. Alinta submitted:

> … that clause 10.2 gives Western Power wide discretion to decrease a user's capacity. This could have a significant effect on the certainty that a user has in relation to its contracted capacity. Clause 10.2 of the AQP does not even require Western Power to consult with the user to determine whether the user requires the capacity. It is not clear how Western Power would be placed to be able to form an opinion as to whether the contracted capacity is "not reasonably necessary". Users may have genuine reasons for not wanting to relinquish unutilised capacity. For example, users may be planning an expansion of their facilities and require the capacity. Alinta submits that clause 10.2(b) of the AQP should be removed or, if that is not possible, be amended to require Western Power to consult with the user when considering whether to decrease a user's capacity and also to include further guidelines as to when Western Power may decrease a user's contracted capacity.[449]

1568. WASEA submitted:

> The area of spare capacity allocation or partial spare capacity allocation is unclear and requires further consideration and explanation.
>
> …
>
> It's not clear how an incremental generation (or load albeit) is managed in the queuing policy under these types of scenarios.
>
> It appears the concept of interruptible capacity to maintain network design limits has not been developed. This mechanism would enable additional interruptible capacity to be installed which is intermittently curtailed by the network operator when capacity limits are exceeded.[450]

[449] Alinta, page 56.

[450] WASEA, page 4.

Authority's Assessment

1569. Proposed AQP clauses 10.2(b) and (c) confer discretion on Western Power to arbitrarily reduce an applicant's contracted capacity based on its own interpretation of the applicant's requirements. The proposed clauses 10.2(b) and (c) are therefore considered by the Authority to be material additions.

1570. The proposed clause does not accommodate the applicant's interests as far as reasonably practicable as it provides for Western Power to unilaterally decrease the contracted capacity of existing users.

1571. Further, the Authority considers that a mechanism to vary capacity is more appropriately dealt with under a SAC, where a user or service provider can seek to modify contracted capacity, rather than by introducing contractual variances into an applications and queuing policy.

1572. For the above reason the Authority considers the proposed clause is not consistent with section 5.7(a) of the Access Code.

Required Amendment 132

Western Power to delete proposed applications and queuing policy clauses 10.2(b) and (c) (Existing access contracts and determination of spare capacity).

Timing of initial response (Proposed AQP clause 11.2(a); Model AQP clause A2.90)

Western Power's Proposal

1573. Under Model AQP clause A2.90, the access arrangement must specify a number of business days within which a service provider must provide the initial response in relation to each class of application, in each case denoted by the variable, *[x]*. Notes 14, 15 and 16 to the Access Code provide instructions in relation to class 1, 2 and 3 applications respectively. Note 14 provides:

> To be inserted when the model applications and queuing policy is incorporated into an access arrangement, if applicable. Unless the Authority considers that the Code objective and the objectives in section 5.7 require otherwise, the value inserted for variable [x] should not exceed 5.

1574. Notes 15 and 16 are in the same terms and specify a period not exceeding in the case of class 2, 5 business days, and in the case of class 3 applications, 20 business days.

1575. Proposed AQP clause 11.2 specifies that the initial response must be provided within 5, 10 and 20 business days after the application is lodged in respect of class 1, 2 and 3 applications respectively.

Interested Party Submissions

1576. The Authority has not received any public submissions.

Authority's Assessment

1577. The only material variation in Proposed AQP clause 11.2(a) relates to the timeframe for processing class 2 applications. Note 15 in the Model AQP specified that the variable *[x]* should not exceed five business days unless the Authority determines that the Code objective or the objectives in section 5.7 of the Access Code require an alternate amount.

1578. Western Power proposes 10 business days for that variable. This is inconsistent with the instructions in the Access Code in relation to the completion of the clause. The Authority does not consider that the proposed variation to the timing of class 2 applications meets the Code objective, nor does the Authority consider that the extension of time for responses to be given to class 2 applicants is reasonable, as it results in additional delays in processing the application, which is inconsistent with section 5.7(c) of the Access Code.

1579. For the reasons above, and having regard to the Model AQP, the Authority considers that the proposed variation is inconsistent with section 5.7 of the Access Code.

Required Amendment 133

Western Power to amend proposed applications and queuing policy clause 11.2(a)(ii) (Timing of initial response) to be completed consistent with the instructions in Note 15 in the model applications and queuing policy.

Making the access offer (Proposed AQP clause 12.1; Model AQP clause A2.99)

Western Power's Proposal

1580. Model AQP clause A2.99 provides that the service provider must, acting as a reasonable and prudent person, give an access offer to the applicant as soon as practicable. In any event the service provider must do so within a period of business days denoted by the variable, *[x]*, in relation to class 1 and 2 applications, and as soon as practicable in relation to a class 3 application having regard to the nature of the application. Notes 17 and 18 to the Model AQP provide instructions in relation to the time periods for class 1 and 2 applications respectively. Note 17 provides:

> To be inserted when the model applications and queuing policy is incorporated into an access arrangement, if applicable. Unless the Authority considers that the Code objective and the objectives in section 5.7 require otherwise, the value inserted for variable [x] should not exceed 5.

1581. Note 18 with respect to class 2 applications is in identical terms but the number of business days is 10.

1582. Proposed AQP clause 12.1 provides timeframes for the making of the offer which are consistent with the Model AQP, namely 5 days and 10 days for class 1 and 2 applications respectively, and in relation to class 3 applications a period of time expressed in the same terms as Model AQP clause A2.99. However the obligation under the Proposed AQP upon Western Power is to make reasonable endeavours to make an offer.

1583. Western Power submitted:

> Finally, the clause on compliance with processing timeframes has been modified to a reasonable endeavours obligation, in accordance with section 5.7(c) of the Code.[451]

Interested Party Submissions

1584. Western Power Generation submitted:

> Clauses 8.10 and 12.1 of the AQP provide that Networks need only use "reasonable endeavours" to comply with the timeframes in the AQP. The timeframes should be binding, as contemplated in the Model Applications and Queuing AQP in the ENAC ("MAQP").[452]

Authority's Assessment

1585. Western Power has proposed a variation to the Model AQP which introduces the concept of using "reasonable endeavours" to meet timeframes. In the view of the Authority, the proposal is material as it results in a change to the Model AQP requirement concerning the obligation to make an offer within a specified timeframe.

1586. The Authority accepts Western Power's submission that a reasonable endeavours obligation is consistent with the specific provisions in section 5.7(c) of the Access Code, notwithstanding the variation from the Model AQP provision. The Authority considers that Proposed AQP clause 12.1 is consistent with the requirements of the Access Code.

Constituent parts of the access offer (Proposed AQP clause 13.2)

Western Power's Proposal

1587. Proposed AQP clause 13.2 specifies those constituent parts of an access offer.

[451] Access arrangement information, Appendix 8, page 7.

[452] Western Power Generation, page 4.

1588. Western Power submits:

> In order to provide clarity to applicants, the proposed policy sets out explicitly what will be contained in the formal access offer. In summary, this will include one or more of the following:
>
> - amendment(s) to an existing contract;
> - a requirement for the applicant to enter into an electricity transfer contract;
> - a requirement for the applicant, or the applicant's nominated controller to enter into a connection contract; and
> - a requirement for the applicant to enter into an IWA.[453]

Interested Party Submissions

1589. Alinta submitted:

> Alinta does not understand the basis for this clause. It seems to be based upon a view that a connection contract is something that Western Power might seek to impose upon a user. Further, it appears to be the case that such a contract will only be offered if Western Power considers there to be a risk to the network. In this sense, it might be characterised as a "protective" measure for Western Power's benefit.
>
> Alinta suggests that the access offer given to a person who seeks only a connection service should consist of a connection contract that provides the applicant with an express right to physically connect to the network. That enforceable right is the very thing that an applicant for a connection service will seek.
>
> To deny an applicant for a connection service with a connection contract unless Western Power wishes to be protected from risk (if that is what the AQP does) would be unfair to the applicant, as well as unreasonable.[454]

Authority's Assessment

1590. Western Power has included an additional provision which deals with the constituent parts of an access offer. The Authority considers the proposal is a material additional provision as it broadens the scope of the applications and queuing policy by introducing additional matters.

1591. The Model AQP definitions convey the intent that an applications and queuing policy is a policy regulating the application process and not the relationship between the service provider and the applicant once the application process has been completed. The Authority considers that the proposed clause, which seeks to regulate the form of the access offer made to a successful applicant for access, arises by definition only after the application process has been completed. Such a provision would be more appropriately located in an access contact.

1592. The Authority considers that the proposed clause is inconsistent with section 5.7 of the Access Code and the Code objective because it deals with a matter not within the scope of an applications and queuing policy.

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[453] Access arrangement information, Appendix 8, page 8.

[454] Alinta, page 58.

Required Amendment 134

Western Power to delete proposed applications and queuing policy clause 13.2 (Constituent parts of the access offer).

Conditions precedent and determination of spare capacity (Proposed AQP clauses 14.3 to 14.6; Model AQP clauses A2.84 and A2.85)

Western Power's Proposal

1593. Model AQP clause A2.84(b) provides that a service provider must, for the purpose of determining spare capacity only, disregard its obligation to provide covered services under any access contract that contains a condition precedent for which a period of longer than 18 months is provided for its fulfilment. Model AQP clause A2.85 provides that nothing in Model AQP clause A2.84 prevents parties to an access contract from entering into a contract which contains a condition which allows a period of more than 18 months for its fulfilment.

1594. There is no equivalent of Model AQP clause A2.84(b) in the Proposed AQP. Rather, proposed clause 14.4 provides that the parties may not enter into an access contract which contains a condition which allows a period of more than six months for its fulfilment. Proposed AQP clauses 14.5 and 14.6 (which have no equivalent in the Model AQP) make provision for the circumstance where after six months a condition precedent has not been fulfilled.

1595. Western Power submitted:

> The model policy created the possibility of Western Power facing significant contingent obligations to prospective users with regard to provision of capacity. In Western Power's view, the model policy may create significant uncertainty for Western Power and applicants.
>
> The amendments address this issue by restricting conditions precedent exceeding six months in duration. Any contract with conditions precedent not fulfilled after six months can be automatically renewed if there are no competing applications. However, if there are competing applications, then Western Power and the existing user must negotiate in good faith within 20 business days to accommodate both the user's and the competing applicant's requirements. Note that this might mean sharing the costs of augmentation, or agreeing to some form of constraint, or some other outcome.[455]

Interested Party Submissions

1596. Alinta submitted:

> … that clause 14.3 should be consistent with clause A2.84 of the Model AQP. Alinta considers that access contracts that contain conditions precedent with a long time frame could inflate the estimates of timing for other applications in the queue.[456]

[455] Access arrangement information, Appendix 8, page 7.

[456] Alinta, page 57.

And:

> … that clause 14.4 is too restrictive on users and that the ERA should consider providing greater flexibility to users. For example, Alinta considers that Western Power and an applicant should be able to extend the condition precedent date if an applicant can show cause that it is using reasonable endeavours to work towards satisfying the conditions precedent. In addition, Alinta does not understand why Western Power and users should be subject to a restriction of this type.[457]

1597. Western Power Generation submitted:

> Clause 14.4 of the AQP prohibits an access contract from containing a condition precedent with a satisfaction period of greater than 6 months. A longer period, such as 18 months, should be allowed.[458]

Authority's Assessment

1598. Western Power has proposed a variation which alters the operation of conditions precedent. In the view of the Authority, the variation is material as it removes the potential for applicants to agree to longer terms than provided for under the Model AQP.

1599. The Model AQP affords applicants and service providers the opportunity to enter into an access contract where a condition precedent extends beyond 18 months. By contrast, Western Power's proposed provisions preclude an access contract being entered into where a condition precedent has a life of longer than six months. This variation erodes flexibility which applicants would otherwise have under the Model AQP to negotiate a condition precedent for a period of time longer than six months. Having had regard to the Model AQP, the Authority considers that this is inconsistent with section 5.7(a) of the Access Code because it does not accommodate the interests of applicants as far as reasonably practicable.

1600. The Authority notes Western Power's concerns about uncertainty associated with long term conditions. However, the provisions in Model AQP clause A2.84 should alleviate any uncertainty by requiring Western Power to disregard a conditional contract, for purposes of calculating spare capacity, where a condition precedent is greater than 18 months.

Required Amendment 135

Western Power to amend proposed applications and queuing policy clauses 14.4 to 14.6 (Conditions precedent and determination of spare capacity) to reproduce model applications and queuing policy clauses A2.84(b) and A2.85 without material omission or variation.

[457] Alinta, page 57.

[458] Western Power Generation, page 4.

Security (Proposed AQP clause 14.8; Model AQP clause A2.86(a))

Western Power's Proposal

1601. Model AQP clause A2.86(a) allows a service provider to require security from an applicant in circumstances where the service provider determines that an applicant's technical or financial resources are such that a reasonable and prudent person would consider there to be a material risk that the applicant will be unable to meet its obligations under an access contract.

1602. Proposed AQP clause 14.8(a) varies from the Model AQP in the following respects:

- the test for the circumstances in which security may be required is different (i.e. the Model AQP allows the service provider to require security where the applicant cannot prove it has one of two specified credit ratings);
- there is an express statement that an advance must be by way of cash deposit (whereas the Model AQP is silent);
- there is an express exclusion of Western Power paying interest on a cash deposit (whereas the Model AQP is silent); and
- there is provision that any bank guarantee be "irrevocable and unconditional" (whereas the Model AQP does not contain such a requirement).

1603. Western Power submitted:

> This section reflects the terms set out in the SAC.[459]

1604. The Proposed AQP also includes clause 14.8(b) for which there is no equivalent in the Model AQP. This clause refers to requirements in relation to security which Western Power may require be included as a term of an IWA.

Interested Party Submissions

1605. Western Power Generation submitted:

> The BBB credit rating requirement in clause 14.8 of the AQP is onerous. It should be subject to a materiality threshold (eg. monthly charges in excess of say $50,000). As in the ENAC this should all be subject to a prior threshold of "acting as a reasonable and prudent person". The level of security should also be set taking into account the fact that disconnection is a very powerful sanction available to Networks in the event of non-payment.
>
> Any security deposits should be placed in a trust account and earn interest for the depositor. Otherwise they would be a source of free working capital not accounted for in the regulatory cost of service.[460]

Authority's Assessment

1606. Western Power has proposed a variation which alters the security requirements. In the view of the Authority, the variation is material as it introduces additional security requirements for applicants which are beyond those contemplated under the Model AQP.

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[459] Access arrangement information, Appendix 8, page 7.

[460] Western Power Generation, page 6.

1607. The Model AQP provides a threshold test for security that where a service provider determines, as a reasonable person, that there is a material risk that the user does not have the financial and technical resources to meet its obligations, then an applicant may be required to provide security.

1608. Western Power proposes substituting that test for a credit rating threshold. However, the credit rating threshold cannot indicate anything about the user's technical resources. As far as the financial standing of the user is concerned the absence of one of the specified credit ratings would not necessarily indicate that a user could not meet its financial obligations in any particular circumstances.

1609. Further, the Authority's investigations have revealed that the costs of acquiring a rating from a recognised rating agency is in the order of $50,000 or more. The need to obtain such a rating may not otherwise be necessary for the user to conduct their business. The Authority considers the variations proposed by Western Power in relation to the threshold requirements for security would operate as a barrier to entry and therefore are inconsistent with the Code objective. The Authority also considers that the proposed security arrangements do not accommodate the interests of applicants as far as reasonably practicable, as the clause does not recognise that users can satisfy the security requirements in alternative ways, and are therefore inconsistent with section 5.7(a) of the Access Code.

1610. As the Authority's draft decision does not consider the proposed IWA satisfies the definition of a SAC, a consequential amendment is required to delete the reference in the Proposed AQP.

Required Amendment 136

Western Power to amend proposed applications and queuing policy clause 14.8(a) (Security) to reproduce model applications and queuing policy clause A2.86(a) without material omission or variation and by deleting proposed applications and queuing policy clause 14.8(b).

Payments due under capital contributions policy (Proposed AQP clause 14.9)

Western Power's Proposal

1611. Where a capital contribution is necessary, Proposed AQP clause 14.9 gives Western Power the ability to require an inclusion of a relevant term related to that capital contribution in the access contract.

Interested Party Submissions

1612. The Authority has received no public submissions.

Authority's Assessment

1613. Western Power has included an additional provision which allows Western Power to include terms of an access contract related to a capital contribution. The Authority

considers the proposal is a material addition as it introduces terms related to an access offer, rather than dealing with applications and queuing matters.

1614. An applications and queuing policy is defined in the Model AQP as "a policy in an access arrangement setting out the access application process under section 5.1(g)". The Authority considers that this definition conveys the intent that an applications and queuing policy is a policy regulating the application process and not the relationship between the service provider and the applicant once the application process has been completed. The Authority considers that the proposed clause, which seeks to introduce required elements of an access contract, is a matter that by definition arises only after the application process has been completed. Such a provision would be more appropriately located in an access contract.

1615. The Authority considers that the inclusion of the proposed clause is inconsistent with section 5.7 of the Access Code because the Proposed AQP would then deal with a matter not properly within the definition of an applications and queuing policy.

Required Amendment 137

Western Power to delete proposed applications and queuing policy clause 14.9 (Payments due under capital contributions policy).

If application requests reference service (Proposed AQP clause 14.10; Model AQP clause A2.103)

Western Power's Proposal

1616. Model AQP clause A2.103 provides that if an applicant requests a reference service on materially the same terms as those set out for the reference service in the access arrangement then the access offer must be on terms materially the same as the requested terms, subject to certain exceptions listed for each of a class 1, 2 or 3 application.

1617. By way of variation the Proposed AQP clause 14.10 applies where an applicant requests a reference service on terms materially the same as those set out in the ETAC.

Interested Party Submissions

1618. The Authority has not received any public submissions.

Authority's Assessment

1619. Western Power has proposed a variation which relates to terms of a reference service under the ETAC rather than under the access arrangement. The Authority considers the variation is material because it removes an applicant's ability to seek terms set out in the access arrangement, rather than limiting it to the terms in the ETAC.

1620. Western Power's proposed clause detracts from the applicant's rights in relation to applications for a reference service which seek terms in the access arrangement but not in the ETAC. This is inconsistent with section 5.7(a) of the Access Code as it does not accommodate the interests of the applicant as far as reasonably practicable by removing the additional terms of reference services under the access arrangement.

Required Amendment 138

Western Power to amend proposed applications and queuing policy clause 14.10 (If application requests reference service) to reproduce model applications and queuing policy clause A2.103 without material omission or variation.

If application requests a connection service (Proposed AQP 14.11)

Western Power's Proposal

1621. Proposed AQP clause 14.11 includes a provision, for which there is no equivalent in the Model AQP. The clause states that if an applicant requests a connection service on terms materially the same as those set out in the CAC then the access offer must be on materially the same terms as those requested in the application.

Interested Party Submissions

1622. The Authority has not received any submissions.

Authority's Assessment

1623. As the Authority's draft decision does not consider that the proposed CAC satisfies the definition of a SAC, there is a consequential amendment to delete the reference in the Proposed AQP.

Required Amendment 139

Western Power to delete proposed applications and queuing policy clause 14.11 (If application requests a connection service).

If application requests non-reference service (Proposed AQP clause 14.12; Model AQP clause A2.105)

Western Power's Proposal

1624. Model AQP clause A2.105 provides that an access offer in relation to an application for a non-reference service must be consistent with the Code objective, reasonable and as similar as practicable to any terms requested in the application.

1625. Proposed AQP clause 14.12 reproduces this provision with two exceptions. Firstly in relation to the requirement that the access offer be as similar as practicable to terms requested in the application only applies to those terms "negotiated in good faith" by the parties during the processing of the application. Secondly the clause excludes applications relating to connection services which are dealt with by Proposed AQP clause 14.11.

Interested Party Submissions

1626. Western Power Generation submitted:

> In a number of instances, and unlike clause A2.8 of the MAQP, the AQP provides that the applicant must act in good faith. Whilst this appears reasonable, the provision is only superficially equitable because it potentially operates unequally on the parties.[461]

Authority's Assessment

1627. Western Power has proposed a variation concerning the application of the policy to non-reference services. In the view of the Authority, the variation is material as it changes the scope of the Model AQP in relation to non-reference services.

1628. In relation to the additional requirement that the clause will only apply in relation to terms negotiated in good faith, the Authority considers that the inclusion of the requirement adds a layer of uncertainty to what is intended to be a mechanical process. The Authority concludes that the proposed variation is therefore inconsistent with the requirements of section 5.7(b) of the Access Code.

1629. Further, Western Power has not proposed a "connection service" to be provided under the access arrangement. Therefore, the inclusion of the words "other than a connection service" are inconsistent with section 5.7(e) of the Access Code as the concept of obtaining access to covered services is confused.

Required Amendment 140

Western Power to amend proposed applications and queuing policy clause 14.12 (If application requests non-reference service) to delete:

- the words in the preamble "other than a connection service"; and
- the words in clause 14.12(c) "and negotiated in good faith by the applicant and Western Power during the processing of the application".

[461] Western Power Generation, page 4.

If application triggers works (Proposed AQP clause 14.13)

Western Power's Proposal

1630. Proposed AQP clause 14.13 includes a provision, for which there is no equivalent in the Model AQP, that if an applicant requests a covered service that will result in works on terms materially the same as those set out in the applicable IWA in the access arrangement, then the access offer must be on materially the same terms as those requested in the application.

Interested Party Submissions

1631. The Authority has not received any public submissions.

Authority's Assessment

1632. As the Authority's draft decision does not consider that the proposed IWA satisfies the definition of a SAC, there is a consequential amendment to delete the reference in the Proposed AQP.

Required Amendment 141

Western Power to delete proposed applications and queuing policy clause 14.13 (If application triggers works).

If applicant rejects access offer (Proposed AQP clause 15.3; Model AQP A2.109)

Western Power's Proposal

1633. Model AQP clause A2.109 specifies a procedure to be followed in cases where an applicant rejects an access offer and requests amendments. Proposed AQP clause 15.3 reproduces the Model AQP provision with the exception that the Model AQP does not specify that a further offer must incorporate requested amendments.

Interested Party Submissions

1634. Western Power Generation submitted:

> Clause 15.3(c) of the AQP requires Networks to provide a further access offer to the applicant if the applicant rejects an access offer and requests amendments to the access application. The new access offer should be required to incorporate the applicant's required amendments in accordance with clause A2.109 of the MAQP.[462]

Authority's Assessment

1635. Western Power has proposed a variation which removes the requirement for it to incorporate amendments into revised applications. The Authority considers that the

[462] Western Power Generation, page 5.

variation is material as it leads to uncertainty over how amendments will be addressed by Western Power in revised applications.

1636. Western Power has proposed to process amended applications in accordance with the applications and queuing policy, but omits the words from Model AQP clause A2.109 requiring the inclusion of the amendments requested by the applicant. The proposed clause could significantly disadvantage applicants by frustrating the application process, which is inconsistent with the requirement to have reasonable timelines for progressing and finalising negotiations under section 5.7(c) of the Access Code. The Authority also considers the proposal is inconsistent with section 5.7(a) of the Access Code and the Code objective because it does not accommodate the interests of parties to the application as far as reasonably practicable.

Required Amendment 142

Western Power to amend proposed applications and queuing policy clause 15.3 (If applicant rejects access offer) to reproduce model applications and queuing policy clause A2.109 without material omission or variation.

Dormant access offers (Proposed AQP clause 15.4; MAC clauses A2.78 & A2.79)

Western Power's Proposal

1637. Proposed AQP clause 15.4 includes a provision in relation to dormant access offers, which are access offers made but not signed by the applicant where three months have passed without the applicant signing the offer.

1638. Western Power submitted:

> The policy has introduced the concept of a dormant access offer, similar to a dormant application in order to mitigate the risk of offered capacity being unused but unavailable to other users. This is consistent with the Code objective.[463]

Interested Party Submissions

1639. The Authority has not received any public submissions.

Authority's Assessment

1640. Western Power has proposed a variation which requires a user to sign an access contract within 20 business days or Western Power will consider the application to be "dormant". In the view of the Authority, the proposal is a material variation as it places a timeframe around when access offers are considered dormant, which the Model AQP does not.

[463] Access arrangement information, Appendix 8, page 8.

1641. The Authority considers that dormant access offers can be satisfactorily managed, and the interests of the service provider and users reasonably accommodated under the MAC. MAC clause A2.78 provides for a service provider to consider a dormant application is unlikely to proceed to an access offer where it acts as a reasonable and prudent person. Proposed AQP clause 15.4 extends this to limit an applicant signing the dormant offer before 20 business days have elapsed.

1642. Having had regard to the Model AQP, the timeframe placed around the signing of access offers is not considered to be reasonable. The proposed clause 15.4 is inconsistent with section 5.7(a) of the Access Code as the stringent timeframes proposed by Western Power do not reasonably accommodate the interests of the parties to the application.

Required Amendment 143

Western Power to amend proposed applications and queuing policy clause 15.4 (Dormant access offers) to reproduce model applications and queuing policy clause A2.78 without material omission or variation.

Customer transfer requests (Model AQP clause A2.43)

Western Power's Proposal

1643. Model AQP clause A2.43 makes provision in relation to specified transfer matters in circumstances where such matters are not provided for in a customer transfer code. There is no equivalent provision in the Proposed AQP.

Interested Party Submissions

1644. The Authority has not received any public submissions.

Authority's Assessment

1645. Western Power has omitted a provision from the Model AQP which deals with customer transfer requests. In the view of the Authority, the omission is material as it results in uncertainty over how customer transfer requests will be managed.

1646. The inclusion of "transfer matters" is considered to be necessary to facilitate the achievement of section 5.7(b) of the Access Code so that applicants can understand how the applications and queuing policy will operate. In the absence of equivalent provisions, applicants will be unable to determine how those matters listed under Model AQP clause A2.43 will be dealt with by Western Power. Therefore, the proposed omission is inconsistent with section 5.7(b) of the Access Code.

Required Amendment 144

Western Power to amend proposed applications and queuing policy to reproduce model applications and queuing policy clause A2.43 (Customer transfer requests) without material omission or variation.

Material variations to amended applications (Model AQP clause A2.75)

Western Power's Proposal

1647. Model AQP clause A2.75 provides for applicants to vary the original application in ways that are not considered to be of a material nature, thereby providing for "normal fine-tuning" of a submitted application.

1648. Western Power submitted:

> With amendments, the challenge is in determining when an amended application is "materially different". Notionally small differences might have a significant impact on the nature of any works, and otherwise might potentially prejudice other applicants. Consequently, rather than trying to be prescriptive, Western Power has provided scope to apply discretion in the interests of the generality of applicants by not adopting the clause in the model policy which seeks to define ways in which an amended application might not be materially different.[464]

Interested Party Submissions

1649. Alinta submitted:

> … that Western Power has a wide discretion under clause 9.3(b) of the AQP to determine that an amended application is "materially different" to an original application. Alinta believes that the AQP should set parameters (such as those contained in clause A2.75 of the Model AQP) to provide Western Power with guidance as to what would be considered to be "not materially different".[465]

Authority's Assessment

1650. Western Power has omitted a provision from the Model AQP which provides a guide over what constitutes a "material" variation to an application. In the view of the Authority, the omission is material because the absence of the guidance afforded under the Model AQP in relation to "materiality" of a varied application removes certainty for applicants.

1651. Alinta notes that Western Power's proposal provides considerable discretion for determining whether an application is "materially different". This is inconsistent with section 5.7(b) of the Access Code due to the lack of certainty inherent in the proposal.

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[464] Access arrangement information, Appendix 8, page 7.

[465] Alinta, page 55.

1652. While Western Power's concerns are acknowledged the Authority considers that Model AQP clause A2.75 does not limit the situations in which an amended application can be classified as "materially different", yet offers some guidance for applicants on what they can expect in relation to an applications and queuing policy as required by section 5.7(b) of the Access Code.

Required Amendment 145

Western Power to amend proposed applications and queuing policy to reproduce model applications and queuing policy clause A2.75 (Material variations to amended application) without material omission or variation.

Alternative security (Model AQP clause A2.87)

Western Power's Proposal

1653. Model AQP clause A2.87 provides that where an applicant is required to provide security under Model AQP clause A2.86 for an obligation under an access contract then the applicant may propose alternative security, and there is a specified procedure for dealing with such a proposal and criteria for the determination of appropriate alternative security.

1654. There is no clause in the Proposed AQP equivalent to Model AQP clause A2.87.

Interested Party Submissions

1655. The Authority has not received any public submissions.

Authority's Assessment

1656. Western Power has omitted a provision from the Model AQP which deals with alternative security arrangements. In the view of the Authority, the omission is material as it removes the option for applicants to negotiate an alternative form of security.

1657. Model AQP clause A2.87 facilitates the achievement of section 5.7(a) of the Access Code by ensuring that applicants have access to alternative options for the provision of security. The absence of this clause detracts from the achievement of the Code objective by constituting a barrier to entry, where an applicant is unable to satisfy the specific security requirements but can propose a viable alternative. Therefore, the Authority considers the omission to be inconsistent with section 5.7(a) of the Access Code and the Code objective.

Required Amendment 146

Western Power to amend proposed applications and queuing policy to reproduce model applications and queuing policy clause A2.87 (Alternative security) without material omission or variation.

Preliminary assessment (Model AQP clauses A2.93 to A2.95)

Western Power's Proposal

1658. Model AQP clauses A2.93 to A2.95 sets out a procedure to be followed when an applicant requests a preliminary assessment of a class 3 application.

1659. There is no equivalent provision in the Proposed AQP.

1660. Western Power submitted:

> The informal communications processes laid down in the proposed policy, together with the initial response and progressive reporting laid down in the policy remove the need for preliminary assessments. These arrangements reflect established industry practices, so the relevant clause in the model policy has not been adopted in Western Power's policy.[466]

Interested Party Submissions

1661. The Authority has not received any public submissions.

Authority's Assessment

1662. Western Power has omitted a provision from the Model AQP which deals with preliminary assessments. In the view of the Authority, the omission is material in that it limits the options available to applicants.

1663. The inclusion of clauses equivalent to Model AQP clauses A2.93 to A2.95 is consistent with the requirement of section 5.7(d) of the Access Code because users will not have the information necessary in order to effectively engage in negotiations over access.

1664. As a consequence, there is a need to amend Proposed AQP clause 11.1 which deals with an initial response. Unlike the related clause in Model AQP, Proposed AQP clause 11.1 does not provide for the provision of a preliminary assessment. Given the Authority's requirement to amend the Proposed AQP to include an equivalent of Model AQP clauses A2.93 to A2.95, for consistency, Proposed AQP clause 11.1 is required to be amended accordingly.

1665. As a further consequence, there is a need for the Proposed AQP to be amended to include Model AQP clause A2.98. This clause provides that if an applicant has requested a preliminary assessment the applicant must not request a progress report until one month after the applicant has received the preliminary assessment.

[466] Access arrangement information, Appendix 8, page 5.

Therefore, the Proposed AQP is required to be amended to include an equivalent to Model AQP clause A2.98.

Required Amendment 147

Western Power to amend proposed applications and queuing policy to reproduce model applications and queuing policy clauses A2.93 to A2.95 (Preliminary assessment) without material omission or variation.

Required Amendment 148

Western Power to amend proposed applications and queuing policy clause 11.1 to reproduce model applications and queuing policy clause A2.89(b)(i) (Preliminary assessment) without material omission or variation.

Required Amendment 149

Western Power to amend the proposed applications and queuing policy to reproduce model applications and queuing policy clause A2.98 (Preliminary assessment) without material omission or variation.

Terms of access offer (Model AQP clause A2.104)

Western Power's Proposal

1666. Model AQP clause A2.104 provides that any terms in an access offer relating to reference services must be consistent with the Code objective, reasonable and as similar as practicable to any terms requested in the application dealing with the relevant matter.

1667. There is no equivalent clause in the Proposed AQP.

Interested Party Submissions

1668. The Authority has not received any public submissions.

Authority's Assessment

1669. Western Power has omitted a provision from the Model AQP which deals with the terms of an access offer. In the view of the Authority, the omission is material as it removes a requirement for those terms to be appropriate and consistent.

1670. Model AQP clause A2.104 ensures that the interests of applicants, users and Western Power are accommodated. The Authority does not consider the omission is consistent with section 5.7(a) of the Access Code as it removes a requirement for the terms of an access offer to meet basic conditions.

Required Amendment 150

Western Power to amend proposed applications and queuing policy to reproduce the model applications and queuing policy clause A2.104 (Terms of access offer) without material omission or variation.

Definition of "access offer" (Proposed AQP clause 13.1; Model AQP clause A2.1)

Western Power's Proposal

1671. The definition of "access offer" in the Model AQP refers to an access contract "which complies with clause A2.103 or A2.105 as applicable". The Proposed AQP definition in clause 13.1 does not require the access offer to comply with one or other of the equivalent provisions in the Proposed AQP.

Interested Party Submissions

1672. The Authority has not received any public submissions.

Authority's Assessment

1673. Western Power has proposed a variation to the definition of "access offer". In the view of the Authority, the variation is material as it creates uncertainty over what it would constitute.

1674. The proposed variation omits the requirement that an "access offer" comply with the relevant clauses within the applications and queuing policy. This is inconsistent with section 5.7(b) of the Access Code as applicants will not know with certainty what the access offer must comply with. Considering the Authority's required amendment to reproduce Model AQP clause A2.104 and the consequential changes to Proposed AQP clause 14.12, the Authority considers it consistent with the Access Code requirements to make access offers comply with the relevant provisions.

Required Amendment 151

Western Power to amend the definition of "access offer" in proposed applications and queuing policy clause 2.1 to reproduce the definition of that term in model applications and queuing policy clause 1.1 without material omission or variation.

Definition of "capacity" (Proposed AQP clause 1.1)

Western Power proposal

1675. The term "capacity" is defined in clause 1.1 of the Proposed AQP. The term is not defined in the Model AQP. The definition in the Proposed AQP appears to contain a typographical error (the word "thought" in the second line should be "through").

Interested Party submissions

1676. The Authority has not received any public submissions in relation to this clause.

Authority's Assessment

1677. The proposed inclusion of a definition for "capacity" is not considered to be material in nature and is considered to be consistent with the Access Code requirements pursuant to section 5.11(a) of the Access Code. However, the Authority notes the typographical error in the definition and requires its correction.

Required Amendment 152

Western Power to amend the definition of "capacity" in proposed applications and queuing policy clause 1.1 to correct a typographical error by amending the word "thought" to "through" in the second line.

Definition of "connection contract" (Proposed AQP clause 1.1)

Western Power's Proposal

1678. Proposed AQP clause 1.1 includes a definition of "connection contract" which is a term for which there is no equivalent definition in the Model AQP.

Interested Party Submissions

1679. The Authority has not received any public submissions.

Authority's Assessment

1680. As the Authority's draft decision does not consider that the proposed CAC satisfies the definition of a SAC, there is a consequential amendment to delete the reference in the Proposed AQP.

Required Amendment 153

Western Power to delete the definition of "connection contract" in proposed applications and queuing policy clause 1.1.

Definition of "contracted point" (Proposed AQP clause 1.1)

Western Power's Proposal

1681. Proposed AQP clause 1.1 includes a definition of "contracted point" which is a term for which there is no equivalent definition in the Model AQP. The Model AQP, however, has a definition of "connection point" for which "contracted point" has been used as a substitute in the Proposed AQP.

Interested Party Submissions

1682. The Authority has not received any public submissions.

Authority's Assessment

1683. As the Authority's draft decision, in paragraphs 991 to 995, does not consider that the definition of "contracted point" within the ETAC meets the requirements of the Access Code, there is a consequential amendment to delete the reference in the Proposed AQP.

Required Amendment 154

Western Power to amend proposed applications and queuing policy by replacing all references to "contracted point" with "connection point" and reproducing model applications and queuing policy definition of "connection point" without material omission or variation.

Definition of "dormant application" (Proposed AQP clause 1.1; Model AQP clause A2.1)

Western Power's Proposal

1684. The Model AQP definition of "dormant application" attaches to an application which is lodged on a date more than three years before the date on which the service provider is considering the application. The Proposed AQP definition in clause 1.1 provides a time limit before applications become dormant of six months.

1685. Western Power submitted:

> The definition of dormant applications has been changed to mean that the application may be considered dormant after 6 months, rather than 3 years. Applicants may extend this, but the onus is on them to demonstrate that it is not dormant after the 6-month period has expired.[467]

[467] Access arrangement information, Appendix 8, page 7.

Interested Party Submissions

1686. Western Power Generation submitted:

> The MAQP contains a 3 year time limit before an application could become dormant. This has been reduced to 6 months in the AQP which is too short.[468]

Authority's Assessment

1687. Western Power has proposed to vary the MAC definition of "dormant application" by requiring applications to be assessed as "dormant" after 6 months. The Authority considers that the variation is material as it departs from the considerably longer (three year) time limit for dormant applications under the Model AQP.

1688. Having regard to the Model AQP, the Authority considers the variation adversely affects the interests of applicants. The proposed variation is therefore not considered to accommodate the interests of all parties as required by section 5.7(a) of the Access Code.

Required Amendment 155

Western Power to amend proposed applications and queuing policy definition of "dormant application" to reproduce the definition of that term in the model applications and queuing policy without material omission or variation.

Definition of "interconnection works agreement" (Proposed AQP clause 1.1)

Western Power's Proposal

1689. The Proposed AQP includes a definition of "interconnection works agreement" which is a term for which there is no equivalent definition in the Model AQP.

Interested Party Submissions

1690. The Authority has not received any public submissions.

Authority's Assessment

1691. As the Authority's draft decision does not consider that the proposed IWA satisfies the definition of a SAC, a consequential amendment is required to delete the reference in the Proposed AQP.

[468] Western Power Generation, page 4.

Required Amendment 156

Western Power to delete the definition of “interconnection works agreement” in proposed applications and queuing policy clause 1.1.

Capital Contributions Policy

Introduction

1692. Section 5.1(h) of the Access Code provides that an access arrangement must include a capital contributions policy. Sections 5.12 to 5.17 of the Access Code set out the requirements which must be met by a capital contributions policy.

5.12 The objectives for a capital contributions policy must be that:

(a) in respect of a required augmentation, it strikes a balance between the interests of:

(i) the contributing user; and

(ii) other users; and

(iii) consumers; and

(b) it does not constitute an inappropriate barrier to entry.

5.13 A capital contributions policy must facilitate the operation of this Code, including:

(a) section 2.9; and

(b) the new facilities investment test; and

(c) the regulatory test.

5.14 A capital contributions policy must not require a user to make a capital contribution in respect of any part of new facilities investment which meets the new facilities investment test.

5.15 A capital contributions policy must set out:

(a) the circumstances in which a contributing user may be required to make a capital contribution in respect of a required augmentation; and

(b) the method for calculating any capital contribution a contributing user may be required to make towards the required augmentation; and

(c) for any capital contribution:

(i) the terms on which a contributing user must make the capital contribution; or

(ii) a description of how the terms on which a contributing user must make the capital contribution are to be determined.

5.16 A capital contributions policy may:

(a) be based in whole or in part upon the model capital contributions policy, in which case, to the extent that it is based on the model capital contributions policy, any matter which in the model capital contributions policy is left to be completed in the access arrangement, must be completed in a manner consistent with:

(i) any instructions in relation to the matter contained in the model capital contributions policy; and

(ii) sections 5.12 to 5.15; and

(iii) the Code objective; and

(b) be formulated without any reference to the model capital contributions policy and is not required to reproduce, in whole or in part, the model capital contributions policy.

{Note: The intention of this section 5.16(b) is to ensure that the service provider is free to formulate its own capital contributions policy which complies with sections 5.12 to 5.15 but is not based on the model capital contributions policy.}

5.17 The Authority:

(a) must determine that a capital contributions policy is consistent with sections 5.12 to 5.15 and the Code objective to the extent that it reproduces without material omission or variation the model capital contributions policy; and

(b) otherwise must have regard to the model capital contributions policy in determining whether the capital contributions policy is consistent with sections 5.12 to 5.15 and the Code objective.

1693. The Authority is required to assess the proposed capital contributions policy in accordance with section 5.17 of the Access Code, which requires that the service provider's proposal be considered to be consistent with the Access Code requirements where it reproduces, without material omission or variation, a clause contained within the model capital contributions policy which is provided as Appendix 4 to the Access Code (**Model CCP**). Further, section 5.17(b) of the Access Code outlines the considerations for the Authority where a proposed capital contributions policy clause does not reproduce the Model CPP without material omission or variation.

1694. Western Power has included a capital contributions policy as Appendix 3 to its proposed access arrangement.

1695. Western Power states that the proposed capital contributions policy (**Proposed CCP**) is based upon the Model CCP with variations, additions and omissions.

1696. Western Power has made submissions to the Authority in relation to the Proposed CCP in its access arrangement information at Appendix 9.

1697. The Authority has received submissions from the following interested parties commenting on the Proposed CCP:

- Office of Energy;
- Western Power Generation;
- Chamber of Commerce and Industry;
- Newmont; and
- Alinta.

1698. There are some provisions in the Proposed CCP which are identical to those contained in the Model CCP. The Authority considers that these provisions reproduce without material omission or variation the Model CCP under section 5.17(a) of the Access Code and, therefore, the Authority considers that the inclusion of these provisions meet the requirements of the Access Code.

1699. There are cases where the Proposed CCP contains an omission or variation from the Model CCP which the Authority regards as not material, having regard to the Code objective. In such cases the Authority considers these omissions or variations to meet the requirements of the section 5.17(a) of the Access Code.

1700. Some of the provisions of the CCP fall into the categories described in paragraphs 1698 and 1699. Once the Authority has concluded that a provision meets the

requirements of section 5.17(a) of the Access Code, the Authority has no further discretion to amend or delete a clause even where submissions have been received seeking amendment or deletion of the clause.

1701. Of the 37 total subclauses included in the Proposed CCP, 4 have been assessed by the Authority as being consistent with the requirements of section 5.17(a) of the Access Code and are therefore not discussed in this draft decision.

1702. There are a number of provisions of the Proposed CCP which contain an omission or variation from the Model CCP which the Authority regards as material having regard to the Code objective. In such cases, the Authority has, on a clause-by-clause basis, assessed whether the omission or variation is consistent with sections 5.12 to 5.15 and the Code objective, having regard to the provisions of the Model CCP.

1703. Western Power has added provisions in the Proposed CCP which have no equivalent in the Model CCP. In such cases the Authority, has on a clause-by-clause basis, assessed whether the provision is consistent with sections 5.12 to 5.15 of the Access Code.

1704. In relation to the provisions of the Model CCP which are not assessed as being consistent with section 5.17(a) of the Access Code, the Authority has assessed each provision against the relevant criteria in the Access Code, taking account of Western Power's and other parties' submissions.

1705. In assessing the Proposed CCP against the requirements of the Access Code, the Authority notes that section 5.17(b) of the Access Code requires the Authority to have regard to the Model CCP when testing the relevant clause for consistency with sections 5.12 to 5.15 of the Access Code and the Code objective. As such the Authority's role under section 5.17(b) is to test the consistency of the proposed clause with sections 5.12 to 5.15 and the Code objective, taking the approach under the Model CCP as one example of an approach which would be consistent with those provisions.

1706. Where the Authority is not satisfied that an omission or variation from the Model CCP meets the requirements of the Access Code and subsequently additional information is provided through submissions demonstrating that the omission or variation does in fact meet the requirements of the Access Code, then the Authority will reconsider the omission or variation prior to the final decision.

1707. Where the Authority's assessment is that the proposed clause is not consistent with the relevant Access Code criteria after taking account of submissions received, the required amendments are set out at the conclusion of the discussion of the relevant clause.

Application of Proposed CCP (Proposed CCP clause 2.1; Model CCP clause A4.4)

Western Power's Proposal

1708. Western Power has varied Model CCP clause A4.4 on by expanding the application of the policy to various customer requests and types.

1709. Western Power submitted:

> The application provided in the Model CCP is expanded to include the following:
>
> - When an applicant has applied for an increase in contracted capacity of an existing covered service;
> - When a provision in a user's access contract calls upon the policy;
> - When a person who has applied to the Western Australian Planning Commission for approval to subdivide a property and who does not intend to become a user or an applicant.
>
> The last point deals in particular with developers to whom the provisions in the Model CCP would not otherwise apply.[469]

Interested Party Submissions

1710. Alinta raised concerns over the proposed clause, specifically questioning whether "the level of prescription in clause 2 carries a risk that certain circumstances to which the CCP ought apply are not covered by clause 2".[470] Alinta also queried the appropriateness of proposed clause 2.1(c) (applications to the Western Australian Planning Commission) as it does not apply to users.

Authority's Assessment

1711. Western Power has proposed a variation by adjusting the application of the Proposed CCP. The Authority considers the proposed variation is material as it alters the intended application of the policy to users.

1712. The Authority notes the concerns raised by Alinta regarding situations intended to apply under the Model CCP that may not be captured under the proposed clause. The Authority considers that the intention of the Model CCP was to capture situations where the service provider is required to augment the network to provide services to an applicant and which would otherwise not satisfy the new facilities investment test. However, the proposal extends to situations where it may not be necessary to seek a capital contribution, such as where a user has applied for a new service or increase of capacity but the network does not require augmentation, or where the new facilities investment test is itself satisfied. Therefore, the Authority considers that proposed clause 2.1(a) is inconsistent with sections 5.12 to 5.15 of the Access Code.

1713. As Alinta highlights, a capital contributions policy is to apply to users of the network. A subdivider may be a user of the network if it is party to an access contract. However, the Proposed CCP clause 2.1(c) extends the application of the capital contributions policy to persons who do not intend to become a user or an applicant. Consequently, clause 2.1(c) is considered to be inconsistent with section 5.12 of the Access Code, which only applies to users, consumers and contributing users.

[469] Access arrangement information, Appendix 9, page 3.

[470] Alinta, page 41.

Required Amendment 157

Western Power to amend proposed capital contributions policy clause 2.1 (Application of Proposed Capital Contributions Policy) to reproduce model capital contributions policy clause A4.4 without material omission or variation.

Application of particular clauses (Proposed CCP clause 2.2)

Western Power's Proposal

1714. Western Power has sought to "quarantine" sections of the policy to apply to particular user groups, with differential treatment based on actual or expected consumption and whether the user is a subdivider.

Interested Party Submissions

1715. Similar to the comments raised in relation to proposed clause 2.1(c), Alinta is concerned that proposed clause 2.2(c) does not apply to users of the network.

Authority's Assessment

1716. Western Power has proposed an additional provision which limits application of the Proposed CCP to different groups. The Authority considers the proposed additional provision is material as it alters the intended application of the policy to users.

1717. The Authority understands that Western Power has sought to clarify the application of the capital contributions policy to different groups. However, as the Authority does not consider that the proposed differential treatment of users (under Proposed CCP clauses 9, 10 and 11) is consistent with the Access Code, Proposed CCP clause 2.2 is inconsistent with section 5.12 of the Access Code.

Required Amendment 158

Western Power to delete proposed capital contributions policy clause 2.2 (Application of particular clauses).

Lowest sustainable cost (Proposed CCP clause 3; Model CCP clause A4.6)

Western Power's Proposal

1718. Model CCP clause 4.6 provides for capital contributions to be within the cost incurred by a service provider acting efficiently, in accordance with good industry practice and seeking to provide the lowest sustainable cost.

1719. Western Power has proposed to modify the clause by rewording the requirement for costs to not exceed a reasonable amount, as well as omitting the reference to good electricity industry practice and lowest sustainable costs.

Interested Party Submissions

1720. Alinta asked the Authority to consider the appropriateness of the proposed changes.

Authority's Assessment

1721. Western Power has proposed a variation which alters the costs incurred for the augmentation. The Authority considers the variation is material as it removes the certainty afforded under the Model CCP in relation to the costs a user is liable for.

1722. The Authority considers that the changes proposed by Western Power are generally consistent with the intention of the Model CCP, but the scope of the provision is different. The Model CCP relates to a capital contribution while the Proposed CCP relates to forecast cost of works. The difference may equate to the user having to pay a capital contribution in excess of that which would reasonably be allowed under Model CCP clause A4.6 but which does not exceed the forecast cost of works under Proposed CCP clause 3. Therefore, the variation is inconsistent with section 5.15 of the Access Code by not making it clear when a user is required to make a contribution.

Required Amendment 159

Western Power to amend proposed capital contributions policy clause 3 (Lowest sustainable cost) to apply to a "capital contribution" rather than the "forecast cost of works".

Applicant must make contribution (Proposed CCP clause 4.1; Model CCP clause A4.8)

Western Power's Proposal

1723. Proposed CCP clause 4.1 specifies when a capital contribution is required. The proposal broadens the Model CCP clause by incorporating in a reference to new revenue, as well as capturing an IWA.

1724. Western Power submitted:

> The Proposed Policy makes it clear that where a contribution is required, Western Power will not be required to undertake the works until the applicant signs an IWA with Western Power and, where the costs exceed $50,000, appropriate guarantees for the associated revenue are provided under a signed access contract. This meets the intent set out in A4.8 of the Model Policy and 2.9 of the Code, but expands on these provisions to ensure Western Power can recover the costs of works, and to cater for periodic payments.[471]

[471] Access arrangement information, Appendix 9, page 3.

Interested Party Submissions

1725. The Authority has not received any public submissions.

Authority's Assessment

1726. Western Power has proposed a variation which adds requirements for a user to satisfy before Western Power will undertake works. In the view of the Authority, the variation is material as it introduces additional requirements for users to satisfy which were not contemplated under the Model CCP.

1727. Both the Access Code and Model CCP require that a capital contributions policy sets out the terms of any capital contribution that may be required. The Model CCP does not require a user to first sign an IWA, nor to agree to any revenue under an access contract, nor require an applicant to first enter into an access contract. These additional elements proposed by Western Power place a more onerous obligation on users to meet a number of requirements not anticipated in the Model CCP.

1728. While it is recognised that this clause may offer greater certainty and protection to Western Power, it is considered to constitute a barrier to entry for applicants by inappropriately shifting the requirement onto the applicant to first satisfy numerous tests. Further, it can result in unreasonable delays in the commencement of works where an access contract is not signed due to unrelated circumstances. For these reasons, the proposed variation is considered to be inconsistent with section 5.12 of the Access Code and the Code objective.

Required Amendment 160

Western Power to amend proposed capital contributions policy clause 4.1 (Applicant must make contribution) to reproduce model capital contributions policy clause A4.8 without material omission or variation.

Applicant may provide security for new revenue (Proposed CCP clause 4.2)

Western Power's Proposal

1729. Western Power's proposed clause 4.2 is supplementary to its proposed clause 4.1(b) discussed above.

Interested Party Submissions

1730. The Authority has not received any public submissions.

Authority's Assessment

1731. There is a consequential amendment to delete proposed clause 4.2.

Required Amendment 161

Western Power to delete proposed capital contributions policy clause 4.2 (Applicant may provide security for new revenue).

Calculation of contribution (Proposed clause 5.2; Model CCP clause A4.5)

Western Power's Proposal

1732. Western Power has proposed to vary the method of calculation of a capital contribution by allowing a deduction to the level of required contribution based on any "new revenue" gained from providing the covered service.

Interested Party Submissions

1733. Alinta submitted:

> The proposed method for determining the amount of contribution to be made by an applicant is different to that set out in clause A4.5 of the MCCP. Alinta requests that the ERA carefully consider and assess the method of calculating the contribution proposed by Western Power. Alinta notes that Western Power's proposal appears to adopt a more satisfactory approach than that set out in clause A4.5 of the MCCP, especially in relation to clause A4.5.
>
> Further, Alinta notes that although the upfront capital contribution payable by an applicant is stated to be based on forecast costs, the proposed IWA envisages that the capital contribution may be revised upwards in the event that the actual costs incurred by Western Power in carrying out the works increase. Alinta does not object to this approach, provided the applicant is reimbursed in the event that the actual costs of the works are less than the forecast costs of the works.[472]

1734. Western Power Generation comments:

> Clause 5.2 of the Capital Contributions Policy ('CCP') should include an adjustment back to actual costs and there should be an 'efficiently minimising costs' test.[473]

Authority's Assessment

1735. Western Power has proposed to vary the Model CCP calculation, proposing a deduction for "new revenue". This is considered to constitute a material variation to the Model CCP as it alters the concept under the Access Code of when a capital contribution is required.

1736. The deduction of costs relating to new revenue would appear to be consistent with the Code objective, in that the change promotes competition upstream and downstream of the network. The Authority notes the Proposed CCP clause 5.2(b) ("new revenue") is already considered under section 6.52(b)(i) of the Access Code, where incremental revenue is included in the new facilities investment test. Therefore an applicant would only be liable for a capital contribution for the

[472] Alinta, page 41.

[473] Western Power Generation, page 8.

amounts that exceed the new facilities investment test. Further, if the full cost of augmentation was payable as a capital contribution, with incremental revenue being earned at some later point, an applicant would be entitled to a rebate or recoupment in accordance with the capital contributions policy.

1737. It is also noted that other jurisdictions, specifically Victoria, Queensland and the Northern Territory, adopt an approach where incremental revenue is deducted from the capital contribution.

1738. For the reasons above, and having regard to the Model CCP, the variation is considered to be consistent with section 5.13 of the Access Code and the Code objective.

1739. The issues raised by interested parties in relation to variances between forecast and actual cost are addressed at Proposed CCP clause 7 - Authority's Assessment.

Amount of forecast costs (Proposed CCP clause 5.4; Model CCP clause A4.7)

Western Power's Proposal

1740. Western Power has proposed that the full cost of the forecast works will apply where the applicant seeks a connection to a higher specification than that laid down in the technical rules or, where the augmentation works are fully contestable and the applicant has chosen to contract with Western Power for the works. Otherwise, the apportionment may be the full amount or, where Western Power determines that some part of the costs meets the new facilities investment test, a lesser amount.

1741. Western Power considers that the Proposed CCP describes the following specific circumstances where the apportionment may be less than 100 per cent as follows:

> The amount may be equivalent to the minimum practical works where Western Power chooses to undertake works in excess of the minimum practical works (note that minimum practical works refers to works sufficient to provide only those covered services solely to that applicant).
>
> The apportionment may be based on the applicant's portion of the installed capacity where Western Power reasonably expects to receive tariff income within 5 years from future applicants using the same works and undertakes the works to meet this anticipated requirement.
>
> Where 2 or more applicants are seeking similar covered services at the same time and these could be serviced from the same works, then the apportionment may be negotiated between Western Power and the applicants based on anticipated relative use. This will require the agreement of all parties due to confidentiality concerns.
>
> If works to provide covered services provide specific savings to Western Power in meeting its compliance obligations then the cost to be allocated may be the forecast cost less the amount saved. This might be, for example, where the works allow Western Power to defer planned expenditure to improve network reliability.
>
> Other than the circumstances described, there is a general clause enabling Western Power to derive an amount using any other means consistent with the Code objective.

> This approach provides Western Power with the flexibility to best meet the Code objective and the specific Code requirement to strike a balance between the interests of various users.[474]

Interested Party Submissions

1742. Alinta submitted:

> Clause 5.4 grants Western Power a number of discretions as to the manner in which it allocates all or a portion of the forecast costs to the applicant. Alinta submits that clauses 5.4(b), 5.4(c) or 5.4(d) should clearly define when Western Power must allocate only a portion of the forecast costs to the applicant.
>
> In relation to clause 5.4(b), if Western Power chooses to undertake works in excess of the minimum practical works to provide covered services sought by an applicant, then Western Power should only be entitled to recover from the applicant the forecast costs of the minimum practical works (less any part that satisfies the new facilities investment test).
>
> In relation to clause 5.4(c), if Western Power reasonably expects to receive tariff income from future applicants, then Western Power should be required to apportion the forecast costs based on the contracted capacity sought by the applicant relative to total contracted capacity expected to be sought by those future applicants.
>
> In relation to clause 5.4(d), rather than being under an obligation to negotiate with multiple applicants requiring the same works, Western Power should be obliged to apportion the forecast costs of the works between the applicants based on the relative use of the works sought by each applicant. In addition, the term 'relative use' should be defined.
>
> In relation to clause 5.4(e), if the works provide specific savings to Western Power, then it should be required to allocate to the applicant the forecast costs less the amount saved.[475]

1743. Western Power Generation submitted:

> Clauses 5.4(a)(i) and (iii) of the CCP introduce new methods for determining the amount of forecast costs to be allocated to an applicant. It does not seem appropriate for Networks to be given the unfettered discretion in clause 5.4(a)(iii). It also seems incorrect to allow Networks a discretion to apportion the full amount of forecast costs in clause 5.4(a)(i). The Model Capital Contributions Policy requires Networks to apportion the amount of forecast costs between relevant applicants.
>
> Apportionment in accordance with clauses 5.4(b) to (d) of the CCP should be mandatory and accordingly the word 'may' in each paragraph should be replaced with 'must'.[476]

Authority's Assessment

1744. Western Power has proposed a variation which adds in additional considerations in the calculation of a capital contribution. The Authority considers the proposed variation is material as it alters the concept of calculating a capital contribution as envisaged under the Model CCP.

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[474] Access arrangement information, Appendix 9, page 4.

[475] Alinta, page 42.

[476] Western Power Generation, page 8.

1745. In relation to proposed clause 5.4(a)(iii), Western Power has sought to allow an apportionment based on an "amount determined in any other way required to meet the Code objective". The Authority cannot envisage a situation where neither the full amount, nor an amount determined under proposed clauses 5.4(b) to (e), would not be the basis of the allocation methodology. The Authority considers that the inclusion of this provision would be inconsistent with section 5.15 of the Access Code and the Code objective as it is uncertain in operation.

1746. In relation to proposed clause 5.4(b), Western Power seeks to provide for works to be undertaken in excess of those requested where a net benefit arises from doing so. Western Power argues it has factored in flexibility to this clause by enabling the allocation to the applicant of those costs which represent the amount for the minimum required works.

1747. As reflected in Alinta's submission, the Authority considers that Western Power should be entitled to a capital contribution in respect of no more than the minimum practical works (minus any amount which satisfies the new facilities investment test). The clause is uncertain in operation as it provides that Western Power "may" determine that the amount of costs to be allocated are the forecast costs of the minimum required works, thereby connoting that Western Power may also seek to allocate a higher amount. In the Authority's view, the use of the term "may" is inconsistent with sections 5.12 to 5.15 of the Access Code and the Code objective.

1748. The Authority notes that Alinta supports a provision allowing for apportionment based on expected future tariff income (Proposed CCP clause 5.4(c)). In the absence of submissions to the contrary, the Authority considers Western Power's proposed five year period to be consistent with the Code objective.

1749. However, the ability for Western Power to exercise its discretion – "may" – as to whether to apportion capital contributions should be removed, given the existence of the "If Western Power reasonably expects". In the Authority's view, the use of the term "may" is inconsistent with sections 5.12 to 5.15 of the Access Code and the Code objective.

1750. The Authority considers the inclusion of proposed clause 5.4(d), which allows negotiation to apportion forecast costs of the required augmentation amongst multiple applicants, to be reasonable and consistent with section 5.12 of the Access Code and the Code objective. In addition, the Authority considers that leaving a discretion to Western Power – "may" – is consistent with the Access Code requirements, as the decision (in this instance) is best left to the service provider on a case by case basis.

1751. The Authority considers that proposed clause 5.4(e) regarding the apportionment of legal savings is consistent with sections 5.12 to 5.15 of the Access Code and the Code objective. However, the ability for Western Power to exercise its discretion – "may" – in returning accrued savings should be removed as it is inconsistent with sections 5.12 to 5.15 of the Access Code and the Code objective.

Required Amendment 162

Western Power to delete proposed capital contributions policy clause 5.4(a)(iii) (Amount of forecast costs).

Required Amendment 163

Western Power to amend proposed capital contributions policy clauses 5.4(b), (c) and (e) (Amount of forecast costs) to remove discretionary elements.

Connection assets (Proposed CCP clause 5.5)

Western Power proposal

1752. Western Power has proposed that the applicant be liable for all costs associated with works in providing connection assets where those work are subject to "effective competition".

Interested Party submissions

1753. Alinta submitted:

> Alinta submits that the drafting of clause 5.5 is ambiguous. In addition, it is not clear what is meant by 'subject to effective competition'. Clause 5.5 should be amended so that it is clear that the applicant must pay the full forecast costs for any works that Western Power carries out which it is not required to carry out in order to comply with its obligations under the Code where the applicant and Western Power have agreed that Western Power will carry out those works (i.e. where the works are contestable).[477]

1754. Western Power Generation submitted:

> There is no allowance in the CCP for payment by provision in kind (except in relation to clause 11 of the CCP) which is inconsistent with the Model Capital Contributions Policy. The intention behind the inclusion of clause 5.5 of the CCP is unclear, but combined with the lack of allowance for provision in kind, this clause could operate to exclude competition in the provision of these facilities.[478]

Authority's Assessment

1755. Western Power has included an additional provision which covers the costs of "connection assets". In the view of the Authority, the proposal is material as it introduces provisions dealing with services that are not included under the access arrangement.

1756. The proposed addition is inconsistent with section 5.15 of the Access Code as a contributing user does not know, with sufficient certainty, when they will be required to make a capital contribution. Should an appropriate definition for "effective

[477] Alinta, page 42.

[478] Western Power Generation, page 8.

competition" be proposed by Western Power, the Authority may consider reviewing Proposed CCP clause 5.5.

Required Amendment 164

Western Power to delete proposed capital contributions policy clause 5.5 (Connection assets).

Non-capital costs (Proposed CCP clause 5.6; Model CCP clauses A4.16 A4.19)

Western Power's Proposal

1757. Western Power has amalgamated Model CCP clauses A4.16-A4.19 which deal with the payment of non-capital costs.

Interested Party Submissions

1758. Alinta submitted:

> Alinta submits that clause 5.6 should be consistent with sections A4.16 - 4.17 of the MCCP. The rebates and recoupment provisions (Western Power's CCP, clause 7) should apply fully to contributions in respect of alternative option costs.[479]

1759. Western Power Generation submitted:

> Clause 5.6 of the CCP appears to allow for double recovery, and also appears to be missing the 'efficiently minimising costs' test, compared with clauses A4.16 to A4.21 of the ENAC [Access Code].[480]

Authority's Assessment

1760. Western Power has proposed a variation by amalgamating several provisions relating to non-capital contributions into one provision. In the view of the Authority, the proposal is material as it removes the necessary detail on how non-capital contributions are to be dealt with under the Proposed CCP.

1761. The variation to the Model CCP seeks to provide Western Power with greater flexibility in allocating non-capital costs to the applicant, potentially requiring the applicant to pay for costs beyond those reasonably contemplated under the Model CCP. This is inconsistent with section 5.15 of the Access Code which requires certainty as to the contribution that is required to be made by the user.

1762. In particular, the Model CCP allows for recovery of "alternative options costs" only in relation to those that exceed the costs that would otherwise satisfy the test under section 6.41 of the Access Code.[481] Western Power has omitted this qualifier,

[479] Alinta, page 43.

[480] Western Power Generation, page 8.

[481] In relation to "non-capital costs".

leaving the applicant potentially liable for the full alternative options costs, which may include elements that would otherwise satisfy that test. This variation is inconsistent with the requirements of section 5.15 of the Access Code and the Code objective, as it operates as a barrier to entry where costs in excess of the "alternative options costs" are required to be paid by a user.

1763. Western Power has also added a material variation to the Model CCP by proposing to include "any other non-capital costs" that Western Power incurs in providing the covered services. This difference broadens the potential liability of the applicant for all non-capital costs, whereas the Model CCP allows for the recovery of non-capital costs to be limited to alternative options costs only. As such, this is considered to lead to uncertainty concerning which non-capital costs the applicant may be liable for, thus is inconsistent with section 5.15 of the Access Code and the Code objective.

1764. The Authority notes Western Power Generation's concerns regarding the omission of the "efficiently minimising costs" test. In the view of the Authority, the omission is inconsistent with section 5.12 of the Access Code and the Code objective.

1765. Western Power has not reproduced Model CCP clause A4.19 which provides for allocations across multiple applicants. This clause operates to ensure that only those amounts that relate to the applicant's portion of the work can be allocated to that applicant. In the absence of this provision Western Power may be afforded the opportunity to disproportionately recover costs from multiple applicants, which is inconsistent with section 5.12 of the Access Code.

1766. For the reasons above, and having regard to the Model CCP, the Authority considers that Proposed CCP clause 5.6 is inconsistent with sections 5.12 to 5.15 of the Access Code.

Required Amendment 165

Western Power to amend proposed capital contributions policy clause 5.6 (Non-capital costs) to be replaced with model capital contributions policy clauses A4.16-A4.19 without material omission or variation.

Works over and above standard works (Proposed CCP clause 5.7)

Western Power proposal

1767. Proposed CCP clause 5.7 provides for the full cost of the forecast works to apply where the applicant seeks a connection to a higher specification than that laid down in the technical rules or, where the augmentation works are fully contestable and the applicant has chosen to contract with Western Power for the works. Otherwise, the apportionment may be the full amount or, where Western Power determines that some part of the costs meets the new facilities investment test, a lesser amount.

Interested Party Submissions

1768. Alinta submitted:

> The applicant should only be liable for the full forecast costs of works needed to comply with its request to the extent that the connection or reference service is better than the standard described in the technical rules or the access arrangement (as the case may be). The CCP should otherwise apply in determining the applicant's liability to make a capital contribution, including in respect of rebates and recoupment (Western Power's CCP, clause 7).[482]

1769. Western Power Generation submitted:

> Clause 5.7(a) of the CCP seems appropriate, but there should be an exchange of cost information between Networks and an applicant to ensure that the applicant is ultimately able to negotiate the cost of, and agree to, the upgraded connection before becoming liable to pay.[483]

Authority's Assessment

1770. Western Power has proposed an addition by introducing the concept of providing a contribution for works over and above a standard. The Authority considers the proposed addition is material as it operates to introduce additional requirements for capital contributions.

1771. Western Power has proposed to include a clause covering instances where an applicant seeks works which are in some way "above" the minimum standard. In such a case, Western Power proposes to allocate the full costs or those in excess of the costs which satisfy the new facilities investment test. While the Authority considers that in many cases the capital contribution will be required to cover the full cost of the above standard works, Proposed CCP clause 5.7 does not allow for consideration to be given to circumstances where the "above standard" works accrues a benefit to Western Power or another user or applicant.

1772. The Authority notes that the discussion on Metering in this draft decision requires greater specification of the meters applicable to each reference service. There is the recognition that a user may seek a meter above the standard provided for with a particular reference service, and a capital contribution for the costs in excess of the costs of the standard meter may apply. In order to provide for applicants to get a meter that is "better in some respect than that described in the access arrangement" the Authority considers that Western Power should make a provision in its Proposed CCP which would accommodate this.

1773. The Authority considers that proposed clause 5.7 does not facilitate the achievement of the balance required by sections 5.12 of the Access Code. The Authority would consider Proposed CCP clause 5.7 could be consistent with section 5.12 and 5.14 of the Access Code were it to incorporate elements of Proposed CCP clauses 5.2 and 5.4 (which deal with the appropriate calculation and allocation of a capital contribution to a user).

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[482] Alinta, page 43.

[483] Western Power Generation, page 8.

Required Amendment 166

Western Power to delete proposed capital contributions policy clause 5.7 (Works over and above standard works).

Options for payment (Proposed CCP clause 6.1; Model CCP clause A4.11)

Western Power's Proposal

1774. Western Power has varied the Model CCP contribution options, providing the following reasons:

> The provisions for financial payments and any rebates are consistent with the model policy.
>
> Western Power proposes to only allow payments in kind in the case of subdivisions, and so these provisions are set out under clause 11 and are consistent with the provision in kind clauses in the model contract. Given Western Power's continuing liability for the safety and security of the network, Western Power chooses not to take on the technical compliance risk of allowing other parties to construct part of the covered network.[484]

1775. In addition, the reference in the model to Regional Electricity Supply Policy has been extended in the Proposed CCP to include any appropriate government policy.

Interested Party Submissions

1776. The Authority has received submissions generally on the proposed options for contributions, but none specifically addressing this proposed clause.

Authority's Assessment

1777. Western Power has proposed a variation by removing the option for users to adopt a payment "in-kind". The Authority considers the proposed variation is material as it operates as a barrier to entry for users who wish to elect that option for a capital contribution.

1778. The Model CCP allows for applicants to provide capital contributions in various forms, including by way of "in-kind", whereas Western Power has proposed to allow capital contributions to be made "in-kind" only in the case of subdivisions. All other applicants may only make financial capital contributions.

1779. The Authority considers that removing the in-kind option is inconsistent with section 5.12(b) of the Access Code and the Code objective, in that it constitutes an inappropriate barrier to entry. Consequently, and having regard to the Model CCP, the Authority considers that Western Power must allow an applicant to make a capital contribution as either an upfront or periodic payment or as a provision in-kind.

[484] Access arrangement information, Appendix 9, page 5.

Required Amendment 167

Western Power to amend proposed capital contributions policy clause 6.1 (Options for payment) to reproduce model capital contributions policy clause A4.11 without material variation or omission.

When applicant may choose periodic payment (Proposed CCP clause 6.2; Model CCP clause A4.12)

Western Power's Proposal

1780. Western Power has proposed an amendment to Model CCP clause A4.12. The amendment prescribes conditions precedent to election, expressed as a negative ("may not elect unless"), whereas the Model CCP expresses conditions precedent as a positive ("may elect if").

1781. Western Power has also introduced materiality thresholds, which the Model CCP anticipated being proposed by the service provider.

1782. The Proposed CCP has also removed the provision of security as a condition precedent to making election.

Interested Party Submissions

1783. Office of Energy submitted:

> The Office of Energy views the inclusion of a time to pay scheme for contestable and non-contestable customers is essential since it is a key issue among customers, especially rural customers. It should be available to customers above a reasonable threshold to be set after public consultation. The threshold needs to be appropriate for small use customers.[485]

Authority's Assessment

1784. Western Power has proposed to vary the Model CCP by adding in materiality thresholds which a user must satisfy in order to make periodic payments. The Authority considers this variation to be material as it results in the applicant having to meet two conditions under Proposed CCP clause 6.2, whereas the Model CCP allows for the satisfaction of one or more conditions. Furthermore, the Model CCP makes those conditions the minimum capital cost and/or a minimum payment. The Proposed CCP provides that a periodic payment is only applicable to works for which a material proportion will involve transmission assets and where there is a minimum capital cost above a specified threshold.

1785. The Authority recognises that construction of transmission assets typically involves greater resources and time than for distribution assets, however, there is no basis for discriminating between applicants as to the form of capital contribution. The Model CCP did not envisage limitation of periodic payments to transmission

[485] Office of Energy, page 5.

networks only. As such, the Authority considers that Proposed CCP clause 6.2(a)(i) is inconsistent with section 5.12(b) of the Access Code and the Code objective as it is an inappropriate barrier to entry for prospective applicants.

1786. The Model CCP anticipates the service provider nominating a threshold above which periodic payments may be made. Western Power has proposed the threshold to be set at $1 million. The Authority notes that the Office of Energy submitted that the proposed threshold amount may be inappropriately high, but no submissions were received which would assist in guiding the Authority as to a threshold amount which might be more reasonable.

1787. Following a request for information from the Authority, Western Power indicated that of the 6,000 to 7,000 capital contributions received annually, only four of those exceeded $1 million, and represented approximately 10 per cent of the contributions in total.[486] In recognition of the limited number of applicants entitled to periodic payments based on Western Power's proposal, the Authority considers that the threshold of $1 million is excessive and should be lowered. The Authority would be unable to accept a materiality threshold that results in the majority of contributors being unable to make periodic payments, and requires Western Power to propose an amount which would provide periodic payment options to a substantial number of those contributing. The Authority also encourages interested parties to make further submissions on this threshold amount.

1788. Finally, Western Power has removed Model CCP clause A4.12(b) relating to security, proposing only to have security dealt with under Proposed CCP clause 4.2. However, as Proposed CCP clause 4.2 only deals with security for new revenue and is required to be deleted, the Authority considers that it is consistent with sections 5.12 to 5.15 of the Access Code and the Code objective for Western Power to have the option to require security from a user against the capital contribution.

Required Amendment 168

Western Power to amend proposed capital contributions policy clause 6.2 (When applicant may choose periodic payment) by reproducing model capital contributions policy clause A4.12 without material omission or variation, and propose a materiality threshold which would provide periodic payment options to a substantial number of those contributing.

Terms and amount of periodic payment (Proposed CCP clause 6.3; Model CCP clauses A4.12 & A4.14)

Western Power proposal

1789. Western Power's Proposed CCP sets maximum and minimum terms for periodic payments, being over five years with minimum payments of $200,000 per annum.

[486] Email from Western Power to the Authority, 5 January 2006.

1790. The Proposed CCP also allows Western Power to charge interest at a rate of 15 per cent per annum, calculated each calendar month, for each periodic payment.

Interested Party Submissions

1791. Alinta submitted:

> In relation to clause 6.3(a)(i), Alinta submits that the maximum term over which periodic payments may be made should be ten years, rather than five, to more accurately reflect the period over which the works are likely to be used by the applicant and the repayment of debt finance required in relation to the works.
>
> The proposed interest rate in clause 6.3(a)(iii) is excessive and unreasonable. Alinta submits that a rate of 3% above the 90 day bank bill rate or similar would be more reasonable and appropriate. Under this approach, interest rates would vary in line with market changes.[487]

1792. Newmont submitted:

> The specified interest rate of 15% appears to be unnecessarily high. This should be reduced to a similar rate to that applied for overdue payments in the Access Contracts, of 3 percentage points above the Business Indicator Rate.[488]

1793. Western Power Generation submitted:

> Clause 6.3(a)(iii) of the CCP proposes that an interest rate of 15% be charged in respect of periodic payments. This rate is above the acceptable commercial range. The interest rate should be tied to either the rate of return, or to a respected index with a nominal addition to the index rate of perhaps 2%.[489]

1794. The Office of Energy considered that the inclusion of a time to pay scheme for contestable and non-contestable customers is essential. They argued that it should be available above a reasonable threshold, which needs to be appropriate for small use customers, and that Western Power's test is restrictive and inappropriate for small use customers. The Office of Energy called for the implementation of a more "flexible" test based on a multiple of the estimated annual charge and that the interest rate charged on periodic payments should be no more than the cost of capital as determined by the Authority plus a reasonable margin to account for administration and planning risk.

Authority's Assessment

1795. Western Power has proposed a variation to the terms and amounts a user must agree to in order to make a periodic payment. The Authority considers the proposed variation is material as it operates as a barrier to entry for users who wish to make periodic payments.

1796. Western Power proposes that the maximum term for periodic payments be five years, while Alinta argues that the appropriate term is 10 years.

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[487] Alinta, page 43.

[488] Newmont, page 5.

[489] Western Power Generation, page 8.

1797. The Authority notes that, for electricity distribution businesses in NSW and SA, IPART and ESCOSA (respectively) allow periodic payments to be made over seven years.

1798. The Authority considers Western Power's proposed inclusion of five years as the period over which periodic payments are to be made as consistent with the Code objective and sections 5.12 to 5.15 of the Access Code. This period strikes a balance between the interests of users and Western Power. The Authority also notes that users are able to seek alternative forms of finance that may offer longer periods of repayment that better meet that user's needs.

1799. The minimum amount for each payment has been proposed by Western Power to be $200,000. Model CCP clause A4.12(a)(ii) foreshadowed the service provider either inserting a minimum amount for each payment, and seeking the Authority's approval for that amount, or to the extent considered to be consistent with the Access Code requirements by the Authority, leaving this value blank for negotiation between the parties.

1800. The Authority considers that the conditions of periodic payments are of a commercial nature rather than necessarily "access" related. Further, it is noted that periodic payments significantly vary between applicants. Consequently, the Authority does not consider that the specification of $200,000 is consistent with the Access Code and requires that this value be left for negotiation.

1801. Western Power has proposed to levy an interest charge on periodic payments at a rate of 15 per cent per annum. The Authority notes that the Model CCP is silent as to interest on periodic payments, but the concept is generally supported by interested parties and is considered to be normal commercial practice. However, the Authority considers that the issue of an interest rate to be charged is of a commercial nature rather than necessarily access related. As such, the Authority requires Western Power to delete the value in its Proposed CCP clause 6.3(a)(iii) and leave it for negotiation between the parties.

Required Amendment 169

Western Power to amend proposed capital contributions policy to allow clauses 6.3(a)(ii) and 6.3(a)(iii) (Terms and amount of periodic payment) to be left for negotiation between the parties.

Rebates and recoupment (Proposed CCP clause 7; Model CCP clause A4.15)

Western Power's Proposal

1802. Clause 7 of the Proposed CCP specifies a number of thresholds for which users may receive rebates and recoupment.

Interested Party Submissions

1803. Alinta submitted:

> Neither the Interconnection Works Agreement nor the Standard Access Contract provided by Western Power provide for the rebates and recoupment described in the CCP. This is contrary to clauses A4.13(d) and A4.14(c) of the MCCP. Alinta submits that these should be incorporated into the Interconnection Works Agreement and Standard Access Contract.
>
> A capital contribution may involve a significant amount of money being paid by a user so that it can receive network services for a lengthy period. The user should be entitled to reimbursement of a proportional amount of its capital contribution if a subsequent user benefits from works the subject of the capital contribution at any time while the first user continues to use those works under its access contract. Accordingly, Alinta submits that the period of 5 years referred to in clauses 7.1(a)(i), 7.2(a) and 7.3 should be replaced with 'the period during which original user continues to use those works under its access contract'. The reference to 5 years in clause 7.4(d) should be replaced with 'the expected remaining life of the works'.
>
> Alinta submits that the amounts $1,000,000 in clause 7.1(a)(ii) and $100,000 in clause 7.1(a)(iii) are unreasonably high, and would result in a user not receiving a fair rebate and recoupment in respect of its capital contribution. Alinta considers that these amounts should be $100,000 and $10,000 respectively.[490]

1804. Office of Energy submitted:

> Clause 7.2(a) and (b) (Western Power must adjust periodic payment) of Western Power's proposed capital contributions policy specifies that rebates will be provided to users when:
>
> - subsequent users connect within five years;
> - the original capital contribution is greater than $1 million; and
> - the rebate entitlement is greater than $100,000.
>
> The Office of Energy considers this approach is restrictive, as it disqualifies small use customers from access to the Western Power rebates scheme. Consequently, small use customers will have to pay a lump sum for any initial capital contribution necessary when requesting a new connection and will not benefit from rebates if subsequent users decide to take advantage of the new infrastructure at a later stage.[491]

1805. Western Power Generation submitted:

> Under clause 7.l(a) of the CCP Networks is not required to pay a rebate to a user unless the initial contribution exceeded $1,000,000. The value of the initial contribution is irrelevant because the materiality threshold (minimum rebate of $100,000) is correctly established in clause 7.1(a)(iii).
>
> The 5 year period in clause 7.4 of the CCP seems inappropriate - the contribution should be discounted at the rate of return over the asset life, or over a 'reasonable time'.
>
> There seems no equitable reason why the cost recovery period under clause 8 of the CCP should potentially be longer than is used in clause 7.[492]

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[490] Alinta, page 43.

[491] Office of Energy, page 6.

[492] Western Power Generation, page 8.

Authority's Assessment

1806. The Authority acknowledges the Office of Energy's submission that Western Power's proposal to apply rebates and recoupment to only large capital contributions is unreasonably exclusive.

1807. It is noted that many other jurisdictions allow for rebates to small users. Specifically, Ergon Energy's (Queensland) capital contributions policy provides for rebates for all customers, including small urban properties, for a period of five years.[493] Further, under its Electricity Licensing Guidelines No. 14, the ESC allows for rebates where a new customer benefits from previous works. In a similar fashion to that adopted by the QCA for Ergon, the ESC has chosen not to restrict the application of this rebate mechanism to certain customers only.

1808. In contrast, IPART provide rebates for only rural and large load customers in NSW. However, the period applicable to IPART's rebate scheme is seven years.

1809. In considering submissions received from interested parties and current industry practice, the Authority considers that the most appropriate scheme relating to rebates is for these to apply to all customers, rather than just to a customer whose contribution exceeds a threshold amount. Underpinning this requirement is the Authority's required amendment under Proposed CCP clause 9 where the Authority does not consider the concept of an "urban shared network" is consistent with the requirements of the Access Code, instead determining that all applicants pay for the true cost of connection (which does not otherwise satisfy the new facilities investment test).

1810. Further, the variables included in the Proposed CCP clause 7.1(a) (and see notes 72 and 73 of the Model CCP) can be either included by Western Power for the Authority's approval, or, if the Authority so determines, left open for negotiation between parties. Before a rebate mechanism will operate, Western Power has proposed that a user must contribute $1 million and the amount to be rebated must exceed $100,000. As the Authority requires that the Proposed CCP be aligned with the Model CCP (in that the concept of an "urban shared network" has not been considered to be consistent with the Access Code requirements), it is not appropriate to restrict the payment of rebates to a limited class of applicants.

1811. In the absence of submissions, the Authority requires that the variables attaching to Model CCP clauses A4.15(a) and (b) be left open to negotiation between the parties, thus having the payment of rebates or recoupment relevant to the size and nature of the capital contribution provided.

1812. It is noted that Western Power Generation raise concerns over whether five years is an appropriate period of time for the rebate to apply. However, it is also noted that the basis for the QCA's approval of a period of five years was due to its determination that the application of rebates to all customers resulted in a greater burden on the service provider. The Authority concurs with this reasoning and consequently considers that, given the practice in other jurisdictions, and the application of rebates to all users, the inclusion of five years is consistent with section 5.12 of the Access Code and the Code objective.

[493] Ergon Energy Policy Capital contributions" 20 April 2005, page 14.

1813. Proposed CCP clauses 7.1, 7.2 and 7.4 refer to an "original user" as receiving the benefit of any rebate or recoupment. In the view of the Authority, this does not recognise that the cost of any capital contribution will be "capitalised" in the price of the asset should it be transferred. Therefore any subsequent rebate should be paid to the current (new) owner of the asset. This results in a more equitable payment of any applicable rebate to the current owner of the asset.

1814. Consequently, the Authority requires that rebates and recoupment should be made to the current owner of the asset, rather than the original user.

1815. The Authority notes concerns raised by interested parties in relation to the payment of a capital contribution based on forecast costs, without adjusting for actual cost incurred. The Authority considers that adjustments of this nature are necessary to achieve the Code objective by ensuring efficient investment in the network. Therefore, Western Power is required to propose a rebate and recoupment provision to address variances between forecast and actual cost.

Required Amendment 170

Western Power to amend proposed capital contributions policy clause 7 (Rebates and recoupment) by reproducing model capital contributions policy clauses A4.15(a) and (b) without material omission or variation, leaving the variables for negotiation between the parties.

Required Amendment 171

Western Power to amend proposed capital contributions policy clause 7 to apply rebates and recoupment to the current owner, rather than the original owner.

Required Amendment 172

Western Power to propose a rebate and recoupment provision to address the variances between forecast and actual cost of augmentation within its capital contributions policy.

Reduced demand payment (Proposed CCP clause 8)

Western Power's Proposal

1816. Western Power has proposed a new concept which allows for a payment to the service provider in the event of reduced demand. Western Power provides the following reasons for including the proposed clause:

> The calculation of the contribution necessarily involves assessment of the likely future revenues over a specified period. If a user was to subsequently reduce its contracted capacity, there is a risk of stranded costs to Western Power. As a simple and effective way to mitigate this risk for the benefit of all users, the reduced demand payment specifies that a payment may be required if this occurs within the cost recovery period used in calculating the contribution and there is no likelihood of these costs being recovered from another user paying access charges for the same contracted point within the same timeframe. The capital contributions policy is

> referred to by the standard access contract in respect of reduced demand payments.[494]

Interested Party Submissions

1817. Alinta submitted:

> Alinta considers that it should be made clear that clause 8.1 will only apply where the user has made a contribution for works. Alinta submits that the words "who has made a contribution for works for a contracted point" should be inserted after the word user in clause 8.1(a). As a consequence of this amendment, the references in clauses 8.1(a)(i) and (ii) to "a contracted point" should be replaced with "that contracted point".[495]

1818. Western Power Generation submitted:

> In clause 8.2 of the CCP the undefined term 'access charge' is used. Also, it seems that this formula should only refer to reservation charges because usage charges are spread across all users anyway. Finally, the formula may contain an error in that it appears to double count the first year. Thus either the first term should be deleted (and 12 redefined) or the summation should start at t=2 or remove the -1 in t-1.[496]

Authority's Assessment

1819. Western Power has included an additional provision which requires users to make payments to Western Power in the event of decreased capacity. The Authority considers the proposed additional provision is material as it introduces a provision which is not directly related to the payment of a capital contribution.

1820. Western Power has sought to introduce the concept of a "reduced demand payment" in order to be protected from any stranding of assets should the applicant's demand decrease in subsequent years.

1821. The concept of a "reduced demand payment" is not provided for under the Model CCP and is considered to be inconsistent with sections 5.12 to 5.15 of the Access Code and the Code objective.

1822. The Authority considers that mitigation against a reduction in demand is effectively dealt with under an access contract, where capacity is contracted for a given period of time and any reduction to that capacity is dealt with as part of that contract. The capital contributions policy is not the framework within which a service provider should seek to recover payments for unused demand. Further, the Access Code defines capital contributions as applying to augmentations, which are increases to the capacity of the network and are not related to reductions in utilisation of the network.

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[494] Access arrangement information, Appendix 9, page 5.

[495] Alinta, page 44.

[496] Western Power Generation, page 9.

Required Amendment 173

Western Power to delete proposed capital contributions policy clause 8 (Reduced demand payment).

Transmission-connected generators (Proposed CCP clause 9)

Western Power's Proposal

1823. Western Power has provided the following reasoning for including a proposed new concept dealing with transmission-connected generators:

> In order to meet the Code objective, the policy has been developed to provide simple and clear locational signals to prospective transmission connected generators and to recognise the potential benefits flowing to users of the shared network in some circumstances. This has been addressed by the following.
>
> Where the connection is to the urban shared network (defined as being within 50 km of the Perth GPO), then the forecast costs are those of any dedicated connection assets only, and hence Western Power deems any shared network augmentation to meet the new facilities investment test.
>
> Where the connection is outside the Urban shared network, then the forecast costs are those for all required works except any augmentation of the Urban shared network.
>
> If reactive power is required to provide support to a generator, then those costs are included, as this can be identified specifically as being caused by that generation.
>
> In all other respects, the policy is consistent with the Model Policy.[497]

Interested Party submissions

1824. Office of Energy submitted:

> The Office of Energy believes that this clause is likely to lead to claims of bias by Western Power, as Western Power's Pinjar site is situated just within the urban shared network, whereas the Alcoa/Alinta Pinjarra site is situated just outside that area. The application of the 50 kilometre radius appears arbitrary.[498]

1825. Alinta commented:

> Clause 9 of Western Power's CCP materially deviates from the MCCP in relation to 'transmission connected generators'.
>
> …
>
> Alinta supports Western Power's proposals under clause 9 of the CCP insofar as they recognise the net benefit to users provided through the connection of new generating plants to the network, by limiting the capital contribution of new generating plants connecting to the urban shared network to the forecast costs of dedicated connection assets only. However, Western Power's approach unfairly

[497] Access arrangement information, Appendix 9, page 5.

[498] Office of Energy, page 7.

> discriminates against new generating plants requiring connection outside the proposed urban shared network. It also ignores the arguments in support of the application of a 'shallow' approach to connection charges generally in relation to the network.
>
> Alinta submits that Western Power's CCP should be amended so that a shallow approach to connection charges applies to the entire network and not just the urban shared network.
>
> …
>
> Western Power's proposals in clause 9 have merit in recognising that, in many cases, it is not reasonable to require an applicant to contribute to augmentation of the wider network and that the applicant's contribution should be limited to costs associated with the dedicated connection assets.
>
> ...
>
> It is unclear how Western Power has selected the urban shared network. There is a prospect of significant disadvantage to, and discrimination in relation to, an applicant who requires works outside of the urban shared network.
>
> For example, there may be planning, environmental or other reasons why it is not appropriate for a significant load or generator to be located in a densely populated area (i.e. within the presently defined urban shared network). Further, it may not be possible for a new load to be constructed in close proximity to a generator (or vice versa). The CCP should encourage such planning by similarly limiting the capital contributions of those applicants. Alinta considers that it is consistent with the Code objective to encourage the development of new loads or generators by extending a more favourable approach to capital contributions to them.
>
> Accordingly, Alinta submits that a more detailed and precise definition of the urban shared network is required, with a much a greater focus on the location and usage of network assets. This definition should be aimed at avoiding the disadvantages and discrimination outlined above. For example, the definition could be based on assets, such as 132kV or 330kV transmission lines, and not be tied to geographical boundaries.
>
> Clause 9.4 imposes a significant financial burden on new generating plants. If consumer demand is sufficient to justify a new generating plant then the costs associated with reactive power works should be shared among all network users. Alinta queries why generators should be unfairly prejudiced because of the location of the load. Alinta submits that clause 9.4 has a negative impact on competition in the electricity generation market and should be deleted.[499]

1826. Chamber of Commerce and Industry commented:

> …the capital contribution for connection of generators must include fair consideration of potential third party benefits – the question of who are beneficiaries needs to be carefully considered in this regard.[500]

1827. Newmont commented:

> The approach taken by many other jurisdictions has been to incorporate all 'deep network assets' into the capital base used to develop the pricing of regulated services. A number of other jurisdictions have recently revised their transmission tariffs in a deliberate effort to minimise barriers to entry to generators. The policies implemented in such jurisdictions usually include eliminating or reducing capital contributions for most transmission network augmentations.

[499] Alinta Limited, page 44.

[500] Chamber of Commerce and Industry, page 1.

> In its latest proposal, Western Power has made a concession in this direction, by including the concept of an Urban Shared Network, covering a geographical area 50km around the Perth GPO. The inclusion of this concept, where generators are exempt from capital contributions for network augmentation, is recognition of the system benefits attributable to these augmentations, however, appears arbitrary, and potentially discriminatory in its current form. It is also unclear why generation plant connected to the transmission network at the extremities of the network (Geraldton, Kalgoorlie or Albany) should not also receive similar concessions as the Urban Shared Network, given that they would achieve the same sorts of objectives as those listed in Clause 9.1.
>
> Outside of this zone, the Capital Contributions Policy develops an unnecessarily complex structure for the calculation and potential rebate of the customer's contribution (see Clauses 5 and 7).
>
> The inherent inability, as a result of the operation of the new WA market, to forecast the delivery points for all generated power, for the duration of the access contract, is a further argument against the concept of generators making capital contributions for deep network asset augmentation. The current structure for capital contributions and for partial reimbursement of these contributions resulting from other Users projects is unnecessarily complex for those wishing to contract bilaterally with generators and for merchant generators who may be altering delivery points on a regular basis.[501]

Authority's Assessment

1828. Western Power has included an additional clause which treats users differently based on their location. The Authority considers the proposed additional clause is material as it introduces a concept which was not contemplated under the Access Code or Model CCP.

1829. The purpose of a capital contributions policy is to provide a framework within which users pay a capital contribution to a service provider for the cost of works that exceed those that would otherwise satisfy the new facilities investment test. Therefore, where the actual cost of works is greater than those that can be apportioned across other users due to a net benefit (i.e. where section 6.52 of the Access Code is satisfied), then the user pays for those costs. This is commensurate with the Code objective.

1830. The Model CCP does not assume that only certain customers would be required to pay those costs that do not satisfy the new facilities investment test while other customers would be automatically entitled, based on location alone, to have those costs borne by all users. The Authority considers that this would result in the Access Code promoting economically inefficient outcomes, which is contrary to the Code objective.

1831. Western Power's proposal would also tend to distort investment decisions by encouraging generators to connect within the urban shared network.

1832. Additionally, the proposal would create an administrative burden by requiring:

- regular adjustment for expansion of the network due to population growth within that proposed area; and
- the "boundary" to be revisited each regulatory period to ensure its continued relevance, thereby adding to uncertainty for users in the longer term.

[501] Newmont, page 4.

1833. Further, the inclusion of a clause that discriminates between users based on location does not achieve the Code objective, as it inappropriately shifts the burden of cost onto some users and deters investment in regions outside of the prescribed area. Additionally, the Authority notes the Office of Energy point highlighting the location of the Alcoa/Alinta site being located just outside the 50 km urban zone, the boundary of which is arbitrary.

1834. The Authority has considered the proposed "urban shared network" in light of the treatment of capital contributions in other jurisdictions. For example, in PowerWater's (NT) Capital Contributions Policy[502] it was determined that a capital contribution be paid by a user seeking to connect to the network where the costs to provide that service exceed that amount that can be recovered through future tariff revenue. Essentially, this is equivalent to a situation where costs relating to an augmentation exceed those costs that would otherwise satisfy the new facilities investment test.

1835. Similarly for distribution networks, Ergon Energy's capital contributions policy requires users to fund the "total incremental cost to connect and supply the new customer",[503] thus providing for "deep" costs to be funded by the user where the cost of supply exceeds the expected network revenue.

1836. While it is recognised that other jurisdictions have adopted an approach which only provides for users to fund "shallow" costs of connection via a capital contribution, the Authority considers that this approach would add to the complexity and uncertainty of administering the system, where the definitions of "shallow" and "deep" can be open to some dispute between the user and the service provider.

1837. Western Power's proposal appears to be both arbitrary and discriminatory. In contrast, adopting an approach whereby all users pay the true cost of connection is consistent with the Code objective. Additionally, the Authority would note that its required approach will be broadly cost neutral for users within the urban shared network as defined by Western Power due to the likelihood that the new facilities investment test would be satisfied and the relatively short distances to major trunk lines. Adoption of the "true cost of connection" approach will also make these advantages available to applicants in remote or regional areas where there is a demand for energy.

1838. To comply with the Code objective, the Authority requires Western Power to amend its Proposed CCP to treat all applicants in an equivalent and equitable manner. The Authority's proposed approach provides that where there is a net benefit to users, and the new facilities investment test is satisfied, then no capital contribution is payable to that extent, but a user will bear its own costs where there is no net benefit to others from the required augmentation.

[502] PowerWater Capital Contributions Policy - Networks Policy, NP 036.

[503] "Ergon Energy Policy Capital contributions" 20 April 2005, page 6.

Required Amendment 174

Western Power to delete proposed capital contributions policy clause 9 (Transmission-connected generators).

Consumers consuming less than 50 MWh per year (Proposed CCP clause 10)

Western Power's Proposal

1839. Western Power has provided the following reasoning in support of its Proposed CCP clause 10 which deals with applicants who are or who act on behalf of consumers consuming less than 50 MWh per year:

> For those meeting this criterion, clause 10 deals sets out explicitly the method of calculating the amount of the contribution and the method of payment in relation to each of the following:
>
> - Commercial consumers;
> - Residential consumers (in particular those qualifying for a pole to pillar connection);
> - Primary producers;
> - Unmetered supplies;
> - Public street lighting.
>
> A further Miscellaneous category under section 10 requires that the amount of contribution is the full forecast cost of the works for any covered service not explicitly covered elsewhere in clause 10.[504]

Interested Party Submissions

1840. Alinta submitted:

> Alinta has not been able to analyse clause 10 in detail. Alinta does, however, have some general concerns about whether the provision complies with the Code requirements. It appears that at least some of the sub clauses may seek to extract capital contributions equal to the cost of carrying out works without regard to whether any part of the works satisfies the new facilities investment test (eg, refer to clause 10.8).[505]

1841. Office of Energy submitted:

> Clause 10.2 (Method of payment) of Western Power's proposed Capital Contributions Policy specifies that any contribution made by applicants consuming less than 50 MWh per year shall be made as an upfront payment.

[504] Access arrangement information, Appendix 9, page 4.

[505] Alinta, page 45.

As stated above, the Office of Energy expects Western Power to include time to pay arrangements for small use customers in accordance with the agreed timeframe.[506]

Authority's Assessment

1842. Western Power has included an additional provision which treats users differently based on their consumption. The Authority considers the proposed additional provision is material as it introduces a concept which was not contemplated under the Access Code or Model CCP.

1843. The Model CCP allows for "in-kind" or periodic payments for applicants of new services, which includes those applicants consuming less than 50 MWh per year. There is no discrimination in the Model CCP of the method of payment based on user consumption levels.

1844. The Authority considers that the purpose of Model CCP clause A4.11 was to ensure that Western Power provides various options to all applicants, thus offering transparent, equitable treatment for similar requirements. Western Power's proposal of requiring up-front payments from applicants consuming less than 50 MWh per year is inconsistent with section 5.12 of the Access Code and the Code objective.

1845. There are a significant number of applicants who would be unable to access alternate options for providing the necessary capital contributions, as the Authority understands that almost 99 per cent of electricity customers consume less than the threshold amount. The Authority also considers that the Model CCP was not intended to restrict the provision of periodic or "in-kind" payments to less than 2 per cent of electricity consumers.

1846. The Authority agrees with the Office of Energy and considers it commensurate with the Code objective to ensure that small use customers are offered comparable options for providing capital contributions to those available to large customers. As such, the Authority requires Western Power to remove Proposed CCP clause 10 in the interests of promoting equitable and balanced treatment between applicants and reducing barriers to entry, therefore being consistent with the Code objective.

Required Amendment 175

Western Power to delete proposed capital contributions policy clause 10 (Consumers consuming less than 50 MWh per year).

[506] Office of Energy, page 7.

Subdivisions (Proposed CCP clause 11)

Western Power's Proposal

1847. Western Power has sought different treatment for capital contributions by subdivisions:

> The provisions for financial payments and any rebates are consistent with the Model Policy.
>
> Western Power proposes to only allow payments in kind in the case of subdivisions, and so these provisions are set out under clause 11 and are consistent with the provision in kind clauses in the model contract. Given Western Power's continuing liability for the safety and security of the network, Western Power chooses not to take on the technical compliance risk of allowing other parties to construct part of the covered network.[507]

Interested Party Submissions

1848. The Authority has received submissions generally on the proposed options for contributions, but none specifically addressing this proposed clause.

Authority's Assessment

1849. Western Power has included an additional provision which relates to in-kind capital contributions for subdivisions. The Authority considers the proposed additional provision is material as it introduces a concept which was not contemplated under the Access Code or the Model CCP.

1850. For the reasons provided in relation to Proposed CCP clause 10, the Authority does not consider it appropriate to limit the payment of "in-kind" capital contributions to subdivisions only. As such, the Authority requires Western Power to remove Proposed CCP clause 11 in the interests of promoting equitable and balanced treatment between applicants and reducing barriers to entry in alignment with the Code objective.

Required Amendment 176

Western Power to delete proposed capital contributions policy clause 11 (Subdivisions).

Provision of capital contribution in kind (Model CCP A4.13)

Western Power's Proposal

1851. Western Power has proposed to remove Model CCP clause A4.13 from the Proposed CCP which deals with the provision of a capital contribution "in-kind".

[507] Access arrangement information, Appendix 9, page 5.

Interested Party Submissions

1852. The Authority has not received any public submissions.

Authority's Assessment

1853. Western Power has omitted a provision which provides for "in-kind" contributions. The Authority considers the omission is material as it removes an option for payment of a capital contribution.

1854. For the reasons provided in relation to Proposed CCP clauses 10 and 11, the Authority does not consider it appropriate to limit the payment of "in-kind" capital contributions to subdivisions only. As such, there is a consequential amendment to include provisions which offer options for all customers to elect to pay a capital contribution as an upfront, periodic or an "in-kind" payment.

Required Amendment 177

Western Power to amend proposed capital contributions policy to reproduce model capital contributions policy clause A4.13 (Provision of capital contribution in kind) without material omission or variation.

Manner of contribution (Model CCP A4.20)

Western Power's Proposal

1855. Western Power has omitted Model CCP clause A4.20 from its Proposed CCP which deals with methods of payment for non-capital contributions.

Interested Party Submissions

1856. The Authority has not received any public submissions.

Authority's Assessment

1857. Western Power has omitted a provision which provides detail on the payment of non-capital contributions. The Authority considers the omission is material as it removes certainty for users over how non-capital contributions are paid.

1858. Model CCP clause A4.20 provides users with an option for payment of non-capital contributions. The absence of this provision leads to uncertainty as to the options users would have available to them for such contributions. Western Power has not provided any detail on how those costs are to be recovered under Proposed CCP clause 5.6. Section 5.15 of the Access Code requires a policy to set out the method and terms for making the contribution under the policy. In the absence of a clause similar to that in Model CCP A4.20, the Proposed CCP does not achieve this requirement.

Required Amendment 178

Western Power to amend proposed capital contributions policy to reproduce model capital contributions policy clause A4.20 (Manner of contribution) without material omission or variation.

Manner of contribution (Model CCP A4.21)

Western Power's Proposal

1859. Western Power has omitted Model CCP clause A4.21 from its Proposed CCP which deals with the terms of payment for non-capital contributions contained within an access contract.

Interested Party Submissions

1860. The Authority has not received any public submissions.

Authority's Assessment

1861. Western Power has omitted a provision which provides details on the payment of non-capital contributions. The Authority considers the omission is material as it removes certainty for users over how non-capital contributions are paid.

1862. This clause effectively ensures that an alternate arrangement, such as an access contract, adequately provides for financial provision rights and obligations and related security matters. Western Power has proposed to include details in its proposed SAC which cover these matters. The inclusion of this clause directs users to the appropriate method of regulating financial provisions and security.

Required Amendment 179

Western Power to amend proposed capital contributions policy to reproduce model capital contributions policy clause A4.21 (Manner of contribution) without material omission or variation.

Definition of "capacity"

Western Power proposal

1863. Western Power has defined "capacity" in its Proposed CCP.

Interested Party Submissions

1864. The Authority has not received any public submissions.

Authority's Assessment

1865. The additional defined term is not used in Western Power's Proposed CCP. Western Power has made reference only to "contracted capacity" through its Proposed CCP, for which there is a proposed definition. As such, the addition is considered material and inconsistent with section 5.15 of the Access Code.

Required Amendment 180

Western Power to delete the definition of "capacity" from its proposed capital contributions policy.

Definition of "contracted point"

Western Power proposal

1866. Western Power has proposed to define "contracted point".

Interested Party Submissions

1867. The Authority has not received any public submissions.

Authority's Assessment

1868. As the Authority is not approving those clauses where the term "contracted point" is referenced, there is a consequential amendment requiring the removal of this clause.

Required Amendment 181

Western Power to delete the definition of "contracted point" from its proposed capital contributions policy.

Definition of "cost recovery period"

Western Power proposal

1869. Western Power has defined "cost recovery period".

Interested Party submissions

1870. The Authority has not received any public submissions.

Authority's Assessment

1871. As the Authority is not approving those clauses where the term "cost recovery period" is referenced, there is a consequential amendment requiring the removal of this clause.

Required Amendment 182

Western Power to delete the definition of "cost recovery period" from its proposed capital contributions policy.

Definition of "forecast costs"

Western Power proposal

1872. Western Power has defined "forecast costs".

Interested Party Submissions

1873. The Authority has not received any public submissions.

Authority's Assessment

1874. Western Power's proposed definition for "forecast costs" is materially different in that it allows the inclusion of non-capital costs ("alternative option costs"). With the Authority's required amendment to include Model CCP clauses A4.16 to A4.19, it is inconsistent with section 5.15 of the Access Code and the Code objective to include this definition.

Required Amendment 183

Western Power to delete the definition of "forecast costs" from its proposed capital contributions policy.

Definition of "interconnection works agreement"

Western Power proposal

1875. Western Power has defined "interconnection works agreement".

Interested Party Submissions

1876. The Authority has not received any public submissions.

Authority's Assessment

1877. As the Authority is not approving those clauses where the term "interconnection works agreement" is referenced, there is a consequential amendment requiring the removal of this clause.

Required Amendment 184

Western Power to delete the definition of "interconnection works agreement" from its proposed capital contributions policy.

Definition of "non-capital contribution"

Western Power proposal

1878. Western Power has proposed to omit the definition for "non-capital contribution".

Interested Party Submissions

1879. The Authority has not received any public submissions.

Authority's Assessment

1880. The Model CCP contemplated the inclusion of a definition applicable to a "non capital contribution" that relates to Model CCP clause A4.16. In consideration of the Authority's required amendment to include that clause, a consequential amendment to include this definition arises.

Required Amendment 185

Western Power to amend the proposed capital contributions policy to include the model capital contributions policy definition of "non-capital contribution" without material variation or omission.

Definition of "payment contract"

Western Power proposal

1881. Western Power has proposed to omit the definition of "payment contract".

Interested Party Submissions

1882. The Authority has not received any public submissions.

Authority's Assessment

1883. The Model CCP contemplated the inclusion of a definition relating to Model CCP clause A4.14. In consideration of the Authority's required amendment to include that clause, a consequential amendment to include this definition arises.

Required Amendment 186

Western Power to amend the proposed capital contributions policy to include the model capital contributions policy definition of "payment contract" without material variation or omission.

Definition of "provision in-kind"

Western Power proposal

1884. Western Power has proposed to omit the definition of "provision in-kind".

Interested Party Submissions

1885. The Authority has not received any public submissions.

Authority's Assessment

1886. The Model CCP contemplated the inclusion of a definition relating to Model CCP clause A4.13. In consideration of the Authority's required amendment to include that clause, a consequential amendment to include this definition arises.

Required Amendment 187

Western Power to amend the proposed capital contributions policy to include the model capital contributions policy definition of "provision in-kind" without material variation or omission.

Definition of "reduced demand payment"

Western Power proposal

1887. Western Power has proposed to define "reduced demand payment".

Interested Party Submissions

1888. The Authority has not received any public submissions.

Authority's Assessment

1889. As the Authority is not approving those clauses where the term "reduced demand payment" is referenced, there is a consequential amendment requiring the removal of this clause.

Required Amendment 188

Western Power to delete the definition of "reduced demand payment" from its proposed capital contributions policy.

Definition of "transmission asset"

Western Power proposal

1890. Western Power has defined "transmission asset".

Interested Party Submissions

1891. The Authority has not received any public submissions.

Authority's Assessment

1892. As the Authority is not approving Western Power's proposal to attach a periodic payment solely to capital contributions for transmission assets, there is a consequential amendment requiring the removal of this clause.

Required Amendment 189

Western Power to delete the definition of "transmission asset" from its proposed capital contributions policy.

Definition of "urban shared network"

Western Power proposal

1893. Western Power has proposed to define "urban shared network".

Interested Party Submissions

1894. The Authority has not received any public submissions.

Authority's Assessment

1895. As the Authority is not approving those clauses where the term "urban shared network" is referenced, there is a consequential amendment requiring the removal of this clause.

Required Amendment 190

Western Power to delete the definition of “urban shared network” from its proposed capital contributions policy.

Transfer and Relocation Policy

Access Code Requirements

1896. Section 5.1(i) of the Access Code provides that an access arrangement must include a transfer and relocation policy. Sections 5.18 to 5.24 of the Access Code set out the requirements which must be met by a transfer and relocation policy.

1897. Sections 5.18 to 5.24 of the Access Code provide as follows:

> 5.18 A transfer and relocation policy:
>
> (a) must permit a user to make a bare transfer without the service provider's consent; and
>
> (b) may require that a transferee under a bare transfer notify the service provider of the nature of the transferred access rights before using them, but must not otherwise require notification or disclosure in respect of a bare transfer.
>
> 5.19 For a transfer other than a bare transfer, a transfer and relocation policy:
>
> (a) must oblige the service provider to permit a user to transfer its access rights and, subject to section 5.20, may make a transfer subject to the service provider's prior consent and such conditions as the service provider may impose; and
>
> (b) subject to section 5.20, may specify circumstances in which consent will or will not be given, and conditions which will be imposed, under section 5.19(a).
>
> 5.20 Under a transfer and relocation policy, for a transfer other than a bare transfer, a service provider:
>
> (a) may withhold its consent to a transfer only on reasonable commercial or technical grounds; and
>
> (b) may impose conditions in respect of a transfer only to the extent that they are reasonable on commercial and technical grounds.
>
> 5.21 A transfer and relocation policy:
>
> (a) must permit a user to relocate capacity at a connection point in its access contract to another connection point in its access contract, (a 'relocation') and, subject to section 5.22, may make a relocation subject to the service provider's prior consent and such conditions as the service provider may impose; and
>
> (b) subject to section 5.22, may specify in advance circumstances in which consent will or will not be given, and conditions which will be imposed, under section 5.21(a).
>
> 5.22 Under a transfer and relocation policy, for a relocation a service provider:
>
> (a) must withhold its consent where consenting to a relocation would impede the ability of the service provider to provide a covered service that is sought in an access application; and
>
> (b) may withhold its consent to a relocation only on reasonable commercial or technical grounds; and
>
> (c) may impose conditions in respect of a relocation only to the extent that they are reasonable on commercial and technical grounds.
>
> 5.23 An example of a thing that would be reasonable for the purposes of sections 5.20 and 5.22 is the service provider specifying that, as a condition of its agreement to a transfer or relocation, the service provider must receive at least the same amount of

revenue as it would have received before the transfer or relocation, or more revenue if tariffs at the destination point are higher.

5.24 Section 5.23 does not limit the things that would be reasonable for the purposes of sections 5.20 and 5.22.

1898. Unlike the capital contributions policy, applications and queuing policy and SAC, the Access Code does not provide a model transfer and relocation policy.

Western Power's Proposal

1899. Western Power has included a transfer and relocation policy in Appendix 2 of its proposed access arrangement.

1900. Western Power's explanation and rationale for the proposed transfer and relocation policy are provided in Part D, section 9 of the access arrangement information.

Interested Party Submissions

1901. Western Power Generation was the only party to make a submission.

Authority's Assessment

1902. The Authority has assessed Western Power's proposed transfer and relocation policy against the requirements of sections 5.18 to 5.24 of the Access Code and the Code objective. In forming a view on whether the proposed policy meets those requirements, the Authority has also had regard to the requirements of a SAC, which includes provisions on how a transfer and relocation policy should operate.

1903. The Authority's draft decision has required a number of amendments to the proposed ETAC. As a result, Western Power is required to make consequential amendments to its transfer and relocation policy.[508]

1904. Transfer and relocation policy proposed clause 4 requires a user's election to exercise a bare transfer conditional on acting as a reasonable and prudent person. The Authority considers that such a requirement contravenes the requirement of section 5.18(a) of the Access Code, which explicitly requires a transfer and relocation policy to allow a user to make a bare transfer without the service provider's consent.

1905. Section 5.18(a) of the Access Code reflects a deliberate policy intention of encouraging unrestricted transfer of contractual rights between users, where the trading cannot affect the service provider's existing rights against the transferor.

1906. As such, the Authority does not consider that the proposal to include a requirement for a user to act as a "reasonable and prudent person" when effecting a bare transfer is consistent with section 5.18(a) of the Access Code and the Code objective.

1907. Western Power Generation raised concerns over proposed clause 4.4 which restricts assignees further assigning access rights under a bare transfer to another person. The Authority concurs with the view expressed and considers that the

[508] For example, under the ETAC the Authority did not approve the proposed use of "contracted point" in substitution for "connection point".

proposal is unduly restrictive and would not facilitate the promotion of competition in markets upstream or downstream of the network. As the original user of the network remains liable, responsible and obligated to Western Power for the access rights under an assigned access contract, there is no risk to Western Power should an assignee assign access rights under a bare transfer to another person. Further, Western Power has not provided any reasoning for the inclusion of a prohibition on assignees from further assigning access rights under a bare transfer and consequently the Authority determines that the inclusion of the prohibition is inconsistent with the Code objective as it impedes competition.

1908. Western Power's proposed clause 5.1(b)(ii) attempts to require security from an assignee prior to Western Power providing its consent to a transfer other than a bare transfer. While section 5.20(b) of the Access Code states that a service provider may impose conditions in respect of a transfer (other than a bare transfer) to the extent they are reasonable on commercial or technical grounds, the Authority is concerned that it would not be reasonable to contemplate security being provided by the assignee.

1909. The assignee will become a party to the access contract following a transfer (other than a bare transfer). Consequently, the Authority considers that the appropriate mechanism for the provision of security is the SAC which provides for security where a service provider is not satisfied with a user's financial or technical capacity.

1910. Therefore, the Authority determines that the introduction of security requirements into the transfer and relocation policy duplicates the requirements of the SAC and is inconsistent with section 5.20(b) of the Access Code as it is not a reasonable requirement and is inconsistent with the Code objective.

1911. While the ETAC contains provisions dealing with mortgaging, security, insolvency and other related matters, Western Power has sought to include similar provisions within proposed clause 5.3 of its transfer and relocation policy:

> 5.3 Assignment to an Australian Bank
>
> (a) Western Power will not unreasonably withhold or delay its consent to a user's assigning by way of security, mortgaging, charging or otherwise creating a security (as principal or surety) in favour of an Australian Bank over the user's access rights under an access contract for the purposes contemplated by clause 5.3(b), subject to the execution by the Australian Bank of such agreements between the Australian Bank, the user and Western Power as are required to be negotiated under clause 5.3(c).
>
> (b) The user shall supply to Western Power full conformed copies of all charges, mortgages or other instruments of security executed by the user in favour of the Australian Bank, or in relation to any transaction with the Australian Bank, which are the subject of any consent granted under clause 5.3, no later than 5 business days after their execution, together with certified extracts of all provisions of any other relevant agreements as are necessary properly to construe and interpret those charges, mortgages or other instruments of security.
>
> (c) Western Power may withhold its consent under clause 5.3 until the Australian Bank, Western Power and the user have agreed on the terms of any consent deed or tripartite deed by which the rights of Western Power and the Australian Bank against the user are regulated and ordered.
>
> (d) Western Power and the user must negotiate any such deed with the Australian Bank under clause 5.3(c) in good faith.

(e) The terms of the deed negotiated under clause 5.3(c) must not materially diminish Western Power's rights, liabilities and obligations under the access contract.

(f) The user must meet Western Power's reasonable costs, including legal costs, incurred in negotiating and documenting the deed negotiated under clause 5.3(c).

1912. The Authority does not consider those situations contemplated by Western Power under proposed clause 5.3 to constitute a "transfer" or "relocation" within the scope of a transfer and relocation policy and thus they are inconsistent with the requirements of section 5.20 of the Access Code and the Code objective.

1913. Western Power Generation also raised concerns over proposed clause 5.4(a) of the transfer and relocation policy, where Western Power seeks the ability to withhold consent to an assignment on the basis of the user and assignee being severally liable. The Authority notes that proposed clause 5.4(b) already confers protection upon Western Power that any assignment will not have the effect of increasing its commercial or technical risk. In contrast, proposed clause 5.4(a) appears to purport to continue the liability of a user, even after the assignment has taken place. In the view of the Authority, this is not a reasonable imposition as Western Power is already protected under proposed clause 5.4(b) from an assignment which would have the effect of increasing its financial risk.

1914. Sections 5.21 and 5.22 of the Access Code provide for a user to relocate capacity from one connection point to another in certain circumstances. Proposed clause 6.2 of the transfer and relocation policy requires users to determine whether there is sufficient capacity at the destination point to satisfy the relocation. Should capacity be sufficient, the relocation must be approved by Western Power. Should there be insufficient capacity, or should there not be a connection point at the destination point, the user must lodge an application under the applications and queuing policy.

1915. The Access Code also provides a contractual process under the SAC via a "capacity increase notice" procedure, which strikes a deliberate balance between existing users and applicants by only providing an existing user with a right to increase capacity at a particular connection point where no network augmentation will be required and no other user or potential applicant will be impeded by the increase. Western Power does not appear to have provided a basis upon which this balance should be adjusted – illustrated through the absence of a capacity increase notice – having regard to the Code objective.

1916. Western Power Generation expressed concern regarding the level of knowledge that a user would have in relation to other users' utilisation of a particular connection point, as imputed by proposed clauses 6.2(a) and (b) of the transfer and relocation policy. These clauses imply a user having a degree of knowledge about another users' access contract, therefore imposing an obligation upon the first user to decide whether to make application under the applications and queuing policy or under its existing access contract. The Authority agrees that it is not appropriate for the transfer and relocation policy to seek to impute knowledge of other users' access contracts on a user. Therefore, proposed clause 6.2 is inconsistent with the requirements of section 5.22 of the Access Code in that the conditions it seeks to impose are not reasonable on commercial or technical grounds.

Other matters

1917. Proposed clauses 3(b) and (c) of the transfer and relocation policy provide:

> A user must not, except as expressly permitted by this transfer and relocation policy:
>
> (a) …
>
> (b) subcontract the performance of its obligations under an access contract; or
>
> (c) create an encumbrance over any of its rights or obligations under an access contract.

1918. Western Power Generation submitted that proposed clauses 3(b) and (c) were not reasonable given that users favoured the option to sub-contract performance or encumber rights or obligations under an access contract.

1919. The Authority considers that a user's right to sub-contract performance will remain unaffected by the provisions under a transfer and relocation policy, which only relate to the transfer of access rights and not a user's performance under an access contract.

1920. In relation to encumbering interests, the Authority considers that the proposed clause ensures that users do not otherwise create an encumbrance over their rights, obligations and responsibilities under an access contract without operating under the transfer and relocation policy.

1921. Therefore, the Authority considers that proposed clause 3 is consistent with the Code objective and the requirements of a transfer and relocation policy under the Access Code.

Required Amendment 191

Western Power to make consequential amendments to the transfer and relocation policy resulting from the Authority's required amendments to the electricity transfer access contract.

Required Amendment 192

Western Power to amend proposed clause 4.1 of the transfer and relocation policy to remove the requirement for a user to operate as a "reasonable and prudent person" when effecting a bare transfer.

Required Amendment 193

Western Power to delete proposed clauses 4.4, 5.1(b)(ii), 5.3, 5.4(a) and 6.2 from its transfer and relocation policy.

APPENDICES

Appendix 1 Glossary

2004 GSR	Western Power's Generation Status Review of 2004
2005 SOO	Independent Market Operator publication of July 2005 - *Statement of Opportunities South West Interconnected System*
AARR	Aggregate Annual Revenue Requirement
ACCC	Australian Competition and Consumer Commission
Access Code	Electricity Networks Access Code 2004
Access Code objective	Section 2.1 of the Access Code
ACF	Australian Conservation Foundation
ACG	The Allen Consulting Group
ADMD	After Diversity Maximum Demand
AER	Australian Energy Regulator
Alinta	Alinta Limited
Authority	Economic Regulation Authority
CAC	Connection access contract
CAIDI	Customer Average Interruption Duration Index
Capex	Capital expenditure
CAPM	Capital Asset Pricing Model
CBA Spectrum	Commonwealth Bank of Australia's Spectrum Service
CCF	Conservation Council of Western Australia Inc.
CCI	Chamber of Commerce and Industry Western Australia
CCP	Capital Contributions Policy
CMD	Contracted Maximum Demand
CPI	Consumer price index
CSMAR	Covered Services Maximum Allowable Revenue
DARY	Distribution Average Revenue Yield
DORC	Depreciated optimised replacement cost
DoCEP	Department of Consumer and Employment Protection
DMAR	Distribution Maximum Allowable Revenue
Draft Decision	A draft decision of the ERA pursuant to section 4.12 of the Access Code
DSOC	Declared Sent Out Capacity
DTF	Western Australian Department of Treasury and Finance
EACC	Electricity Access Consultative Committee
ERA	Economic Regulation Authority
ERA Act	Economic Regulation Authority Act 2003
ERIU	Electricity Reform Implementation Unit
ESC	Essential Services Commission of Victoria

ESCOSA	Essential Services Commission of South Australia
ESD	Energy Safety Directorate of the Department of Consumer and Employment Protection
ETAC	Electricity transfer contract
Final Decision	A final decision of the ERA pursuant to section 4.17 of the Access Code
GSR	Western Power's Generation Status Review
GWh	Giga Watt hour
ICRC	Independent Competition and Regulatory Commission
IEEE	Institute of Electrical and Electronics Engineers Inc.
IMO	Independent Market Operator
IPART	Independent Pricing and Regulatory Tribunal
IWA	Interconnection works agreement
MAC	Model access contract
MAIFI	Momentary average interruption frequency index
Market Rules	The Minister for Energy issued the Wholesale Electricity Market Rules (Market Rules) pursuant to the Electricity Industry (Wholesale Electricity Market) Regulations 2004 on 1 October 2004
MED	Major event day
Metering Code	Electricity Industry Metering Code 2005
Model Policy	Those model policies for applications and queuing and capital contributions, as well as the standard access contract contained as appendices to the Access Code
MRP	Market risk premium
MW	Mega Watt
NAS	Network Advisory Services
NEM	National Electricity Market
Newmont	Newmont Australia Ltd
NIEIR	National Institute of Economics & Industry Research
ODV	Optimised deprival value
OOE	Office of Energy, WA
Opex	Operating and maintenance expenditure
Perth Energy	Perth Energy Pty Ltd
Proposed Policy	Those proposed policies proposed by Western Power for applications and queuing, capital contributions and standard access contract
PwC	PricewaterhouseCoopers
QCA	Queensland Competition Authority
Quality and Reliability Code	Electricity Industry (Network Quality and Reliability of Supply) Code 2005
Revisions commencement date	A date upon which the revisions to the access arrangement are intended to commence

Revisions submission date	A date by which the service provider must submit revisions to the access arrangement
RPIP	Rural Power Improvement Program
SAC	Standard access contract
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SBU	Strengthened Business Units
Section 51 notice	Information sought from Western Power under section 51 of the Economic Regulation Authority Act 2003.
SKM	Sinclair Knight Merz
SSAM	Service standard adjustment mechanism
SUPP	State Underground Power Program
SWIN	South West Interconnected Network
SWIS	South West Interconnected System
Talbot Olivier	Talbot & Olivier Barristers and Solicitors
TARY	Transmission Average Revenue Yield
TCMS	Trouble call management system
Technical rules	Means the technical rules provided for under chapter 12 of the Access Code
TMAR	Transmission Maximum Allowable Revenue
TNSP	Transmission network service provider
UDIA	Urban Development Institute of Western Australia
WACC	Weighted average cost of capital
WACC determination	A determination of the preferred methodology for calculating the WACC, published by the Authority in February 2005
WASEA	Western Australian Sustainable Energy Association Inc.
WEM	Wholesale electricity market
Western Power	Western Power Corporation Networks Business Unit
Wilson Cook	Wilson Cook & Co. Engineering and management consultants, valuers and advisers

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Economic Regulation Authority
Western Australia

Assessment of Western Power's Valuation and Proposed Expenditures

December 2005

Wilson Cook & Co
Engineering and Management Consultants
Advisers and Valuers

Wilson Cook & Co

Engineering and Management Consultants
Advisers and Valuers

Reply to: Auckland Office
Our ref: 0519
Email: info@wilsoncook.co.nz

21st December, 2005

Mr Alistair Butcher & Ms Annette Stokes
Economic Regulation Authority
Level 6, Governor Stirling Tower
197 St Georges Terrace
PERTH WA 6000

Dear Mr Butcher and Ms Stokes,

Assessment of Valuation and Proposed Expenditures Included in Western Power's Proposed Access Arrangement

In response to your instructions, we have pleasure in presenting our assessment of the valuation and proposed expenditures included in Western Power's proposed access arrangement.

The main conclusions arising from the review are set out in the executive summary that follows the table of contents.

Our conclusions are based on the work undertaken and in turn on the requirements of the terms of reference, and on the information and data provided to us by Western Power.

The cooperation and assistance of the Authority, its management and staff and those of Western Power in the preparation of the report are gratefully acknowledged.

Yours faithfully,
Wilson Cook & Co Limited

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Economic Regulation Authority: Assessment of Western Power's Valuation and Proposed Expenditures

Prepared for the Economic Regulation Authority

By Wilson Cook & Co Limited

Enquiries to Mr J W Wilson

Our reference 0519

December 2005

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Disclosure

Wilson Cook & Co Limited has prepared this report in accordance with the instructions of its client on the basis that all data and information that may affect its conclusions have been made available to it. No responsibility is accepted if full disclosure has not been made. No responsibility is accepted for any consequential error or defect in our conclusions resulting from any error, omission or inaccuracy in the data or information supplied directly or indirectly.

Disclaimer

This report has been prepared solely for our client for the stated purpose. Wilson Cook & Co Limited, its officers, agents, subcontractors and their staff owe no duty of care and accept no liability to any other party, make no representation or warranty as to the accuracy or completeness of the information or opinions set out in the report to any person other than to its client including any errors or omissions howsoever caused, and do not accept any liability to any party if the report is used for other than its stated purpose.

Table of Contents

Executive Summary

Appointment and Terms of Reference

In August 2005, the Economic Regulation Authority of Western Australia appointed Wilson Cook & Co Limited, Engineering and Management Consultants, Advisers and Valuers, of Auckland to provide the Authority with an assessment of the technical merit, appropriateness of the methodologies employed, and reasonableness of the cost bases of Western Power's proposed capital base valuation and its forecasts of capital and operations and maintenance expenditure for the forthcoming three-year regulatory period. The consultant's advice was to assist the Authority in its review and approval process for the proposed access arrangement submitted by the Network Business Unit of Western Power Corporation that month.

Work Programme and Reporting

Work on the assessment commenced in August 2005, immediately on our appointment, and was concluded in December 2005 with the presentation of this report.

This Report

This report summarises the work carried out, our general observations and our conclusions. It is presented in ten main sections:

Section 1	Introduction
Section 2	Background and Approach
Section 3	Assessment of the Valuation
Section 4	Key Expenditure-Related Considerations
Section 5	Transmission Capex
Section 6	Transmission Opex
Section 7	Distribution Capex
Section 8	Distribution Opex
Section 9	Comparison with Other Network Businesses
Section 10	Conclusions and Recommendations.

Assessment of the Valuation

Western Power's Proposed Valuation

Western Power proposes to adopt the ODV valuation prepared by PricewaterhouseCoopers (PwC) on behalf of Western Power and ERIU as at 30 June 2004, adjusted for inflation, depreciation, capital expenditure and disposals which occurred or are forecast to occur from 30 June 2004 to 1 July 2006. The initial capital base to which the WACC and depreciation apply is the total asset value less the accumulated value of capital contributions.

Valuation Not a Ministerial Valuation

We noted that section 6.47 of the Code requires use to be made "to the extent possible" of any "ministerial" valuation. We also noted from correspondence dated 10 March 2005 between the Office of Energy and the Authority that whilst the valuation is not a ministerial valuation, it was considered suitable for the purpose for which it was developed, namely: "to provide Western Power with the basis of its submission to the Authority on the regulatory asset base and to provide ERIU with information that was required in planning for the disaggregation of Western Power". The correspondence also confirmed that a valuation committee which included representatives from Western Power, ERIU and the Department of Treasury and Finance oversaw the preparation of the valuation.

Assessment

We considered as described in section 3 of this report the valuation methodology used, the robustness of the data available, the estimates and assumptions made, the asset registers and depreciation schedules, the valuer's assessment of the level of accuracy and the adjustments needed to derive a valuation at 30 June 2006 and we express our opinion in the concluding section of this executive summary.

Key Expenditure-Related Matters

The following key expenditure-related matters were noted during the work.

Constrained Expenditure v. Network Reliability

Western Power prepared expenditure estimates with expert engineering assistance (section 4.1) but subsequently reduced the estimates by around 50% in the case of its transmission capex and 40% in the case of distribution capex from the levels that had been validated by its expert advisers (section 4.2).

Whilst we agree that a substantial increase in expenditure is needed from historical levels, we remain troubled by the perceived ambiguity in the Corporation's statements and the premise that its expenditure can be cut back to such an extent (after having been studied comprehensively by its expert advisers) whilst its projected network performance targets (principally SAIDI) are still met – unless they also were cut back or were not sufficiently challenging in the first place (section 4.3).

Validity of the General Proposition

We were unconvinced by Western Power's general proposition that since less capital expenditure is requested than required, that which was requested is efficient and justified (section 4.3). We argued instead that all expenditures ought to be justified. In some instances, expenditures were not justified to our satisfaction and we have proposed that they be reduced or rejected. Having accepted the remainder, our view is that they should be accompanied by a more challenging distribution network reliability performance target and this also has been recommended.

Impact of Past Levels of Expenditure

We considered whether past levels of capital expenditure were influencing the present expenditure proposals. Western Power's position is that its capital expenditure has been constrained but the Department of Treasury and Finance has expressed a different view (section 4.4).

Irrespective of the reasons given for past levels of expenditure, we accepted that the level of expenditure would need to be increased to ensure satisfactory network performance in the future and this is reflected in our recommendations.

Sharper Focus Needed on Outcomes and Efficiency

We formed the view that Western Power's expenditure plans at the distribution level still tend to lack definition. By that we mean that a lack of finality in the documented asset management strategies and an accompanying, apparent, lack of targeting of expenditure are evident (section 4.5).

It was not clear to us that the business is focussing strongly enough on the factors most affecting network performance and on the actions needed to achieve results. This was evidenced by a lack of up-to-date strategies for specific classes of assets, slow progress on items previously identified as important, and the Corporation's view that it is under-resourced. It may also be a factor in the Corporation's lack of willingness to set more aggressive network performance targets or efficiency and innovation benchmarks.

A stronger focus is needed on outcomes and efficiency, rather than on processes, combined with well-targeted capital investment.

A beneficial outcome of more focussed thinking is likely to be the more convincing articulation of expenditure requirements and their accompanying benefits, thus lessening the likelihood of refusal or reduction by higher levels of management or during the shareholder approval phase.

No doubt this will need to be accompanied by further cultural change in the organisation as it moves into the new era.

(For reasons we explain later in the report, it might also, desirably, be accompanied by a focus on the reduction of indirect costs.)

Planning and Design Criteria and the Draft Technical Rules

New design standards have been contemplated but the associated costs have not been included in the estimates in Western Power's access arrangement information. Should the changes be endorsed, a corresponding increase in forecast distribution capital expenditure would be proposed by Western Power (section 4.6).

Overcoming the Resource Constraints

Western Power is not alone in requiring additional resources to undertake its network expansion and refurbishment programmes. We therefore considered again whether the Corporation would be able to implement its plans. Whilst the answer can only be conjectured, we see no reason why Western Power, along with others in the country and worldwide, cannot gear up for the additional workload foreseen, providing it does take concerted action for the purpose (section 4.7).

Detailed Expenditure Assessments

We undertook detailed assessments of Western Power's proposed expenditure for transmission capex, transmission opex, distribution capex and distribution opex and present our findings in sections 5 to 8 respectively of the main text.

Comparison with Other Network Businesses

We examined the three benchmarking studies commissioned by Western Power, in addition to which we prepared our own comparative analysis for reasons that are stated in section 9 of the main text.

In forming our final opinion, we had regard to the other expert opinions summarised in section 9 of the report, noting that they suggested that Western Power's operating and maintenance expenditures were reasonable. However, we also noted that Meyrick & Associate's analysis was of a prior period (2003) and that we were not able to verify that the expenditures studied by Benchmark Economics were those included in Western Power's access arrangement information. Additionally, the second period covered by Benchmark Economics' study (FY 2006-2010) is not the period of the access arrangement. The analysis attributed to PB Associates suggested that Western Power's expenditures are low in comparison with its peers but it was not clear which period had been examined.

For the reasons just explained, we made our own comparison of Western Power's distribution opex with that of other companies. We had regard to the fact that Western Power has increased its opex significantly since 2003 and that it proposes to make further significant increases during the access arrangement period, the reasons for some of which were not explained to our satisfaction. We further had regard to the fact that Western Power's network exhibits poor reliability at the distribution level.

We concluded that other expert opinions expressed in this section ought not to cause us to alter the opinions reached in our own detailed assessments of the proposed expenditures. Details of the assessment are given in section 9 of the main text.

Conclusions and Recommendations

The main conclusions arising from the review are these.

(a) Having considered as described in section 3 of this report the valuation methodology used, the robustness of the data available, the estimates and assumptions made, the asset registers and depreciation schedules, the valuer's assessment of the level of accuracy and the adjustments needed to derive a valuation at 30 June 2006, our opinion is that the estimated valuation at 30 June, 2006 (*viz:* $1,369 m for transmission plus $1,482 m for distribution) has been prepared in accordance with the ODV methodology, is thus consistent with the requirements of section 6.46 of the Code and may be accepted as reasonable and appropriate for the intended purpose.

(b) As noted in section 3.6, however, we did not consider ourselves competent to express a view on the correctness of the adjustments made for the written-down value of capital contributions at 30 June 2004 or for capital expenditure or depreciation in the two years ending 30 June 2006 as their verification is an accounting matter. We did, however, consider that the figures appeared to be reasonable.

(c) Having considered as described in sections 4 to 9 of this report the reasonableness and appropriateness of the components and values in Western Power's south-west transmission and distribution network's proposed operations, maintenance and capital expenditure, considered also such other expert opinion as was available to us on the matter and compared the forecast

expenditures with historical levels and with those of other network businesses, our opinion in respect of Western Power's proposed expenditures is as set out in (d), (e) and (f) below.

(d) Western Power's proposed transmission and distribution capex during the access arrangement period may be accepted as reasonable in the context of a prudent service provider acting in accordance with good industry practice and seeking to minimise costs efficiently whilst meeting its agreed service standards.

(e) Consideration should be given to reducing Western Power's proposed transmission opex during the access arrangement period to the figures stated in table 6.4 in section 6.5 of this report.

(f) Consideration should be given to reducing Western Power's proposed distribution opex during the access arrangement period to the figures stated in table 8.4 in section 8.6 of this report.

(g) Western Power ought to set or be required to set a tougher performance target for its distribution network reliability, particularly in relation to SAIDI, as its present target is not considered by us to be sufficiently challenging.

(h) At the same time and for the same reason, the Authority might consider why Western Power ought not to set or be required to set accompanying efficiency and innovation benchmarks as well.

The reductions proposed in recommendations (e) and (f) above arise from the lack of supporting information available to us to justify to our satisfaction the network support expenditure and network operations expenditure proposed for transmission and distribution. These expenditure categories exhibit large, unexplained, increases from their present levels.

We have not proposed a distribution network reliability target for the Authority's consideration since reliability matters are subject to review by others.

Acknowledgements

The cooperation and assistance of the Authority, its management and staff and Western Power in the preparation of the report are gratefully acknowledged.

1 Introduction

1.1 Appointment and Terms of Reference

In August 2005, the Economic Regulation Authority of Western Australia (the Authority) [1] appointed Wilson Cook & Co Limited, Engineering and Management Consultants, Advisers and Valuers, of Auckland to provide the Authority with an assessment of the technical merit, appropriateness of the methodologies employed, and reasonableness of the cost bases of Western Power's proposed capital base valuation and its forecasts of capital and operations and maintenance expenditure for the forthcoming three-year regulatory period (the period). The consultant's advice was to assist the Authority in its review and approval process for the proposed access arrangement submitted by the Network Business Unit of Western Power Corporation (referred to throughout the report as 'Western Power' or 'the Corporation') that month. [2]

The terms of reference for the services are given in appendix A.

1.2 Scope of Work

The consultant was to address the following matters for Western Power's covered infrastructure in the South West Interconnected System (SWIS) for both transmission and distribution networks and infrastructure.

Initial Capital Base Valuation

The consultant was to review and comment on:

- the valuation methodology proposed by Western Power, including relevant considerations and benefits of alternative valuation methodologies (for example optimised deprival valuation (ODV) and depreciated optimised replacement cost (DORC), and consistent with the requirements of section 6.46 of the Code);
- the appropriateness of specific assumptions made by Western Power in its valuation calculations, such as replacement costs, asset lives, asset ages and approach to optimisation and economic valuation;
- Western Power's asset registers, including levels of accuracy and maintenance and the extent to which they can be relied upon as a meaningful basis for determining an asset base valuation for Western Power's South West Interconnected Network (SWIN);
- the appropriateness and accuracy of depreciation schedules applicable to the relevant asset classes;
- the level of confidence held regarding the correctness of the underlying data and the calculations used by Western Power in its valuation, including the quality of data and degree of estimation and subjectivity involved; and

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[1] References throughout the report to 'the Authority' are to the secretariat to the Authority unless the sense requires reference to the Authority itself.

[2] Access arrangement (as defined in the Code): "an arrangement for access to a covered network that has been approved by the Authority under this Code". A covered network is one in respect of which "the service provider of the network is subject to section 4.1 of the Code".

- any other specific issues identified that in the opinion of the consultant had arisen and may warrant further consideration.

Capital Expenditure and Operations and Maintenance Expenditure Forecasts

The consultant was to review and comment on:

- the reasonableness, and appropriateness of, or recommend alternatives to, the components and values in Western Power's SWIN transmission and distribution networks proposed operations and maintenance (opex) and capital expenditure (capex);
- relevant Western Power consultants' reports of opex and capex forecasts for the transmission and distribution businesses;
- Western Power's opex and capex forecasts when compared with historical opex and capex expenditure; and
- Western Power's opex and capex forecasts and historical averages when compared with data for similar network businesses elsewhere.

The consultant was to comment on any discrepancies found and make any recommendations considered appropriate.

The consultant was to have regard to 'industry best practice', applicable legislation, precedents relevant to regulated energy infrastructure in Australia including the objectives in section 2.1 of the *Electricity networks access code* 2004 (the Code) [3] and the characteristics of the SWIN, as defined in the *Electricity Industry Act 2004* (the Act).

1.3 Work Programme, Consultation and Reporting

Work on the assessment commenced in August 2005, immediately on our appointment. A request for supplementary information was prepared and forwarded to Western Power and arrangements were made for meetings to be held during the week beginning 19 September. The object of the meetings was to be briefed by the Corporation on the matters that it wished to emphasise in its submissions and then to discuss in detail, with Western Power's staff, each of the main elements of the expenditure proposals. Meetings were also held with the Authority to brief us on the background to the work and the outputs required.

Supplementary information requests relating to our work or for other purposes were prepared and issued by the Authority and the responses to these, and to outstanding matters arising during our visit, were received over the period ending 2 December.

Following receipt and analysis of the information, and after seeking clarification of certain points, we prepared our report and submitted it to the Authority on 5 December for review and confirmation that it addressed our terms of reference. We then presented the report, incorporating agreed changes, as a final draft on 15 December. That draft was forwarded by the Authority to Western Power for confirmation that it did not contain factual errors, misinterpretations of the material received from the Corporation or information that is confidential to the Corporation. A small number of points were identified and have been corrected. At the same time, we considered further information from Western Power that had been received by us on or around 14 December. It related mainly to IT and network support costs and to network operational costs but it was not considered to provide any additional

[3] Section 2.1 of the Code states the objective of the Code as being "to promote the economically efficient: (a) investment in; and (b) operation of and use of, networks and services of networks in Western Australia in order to promote competition in markets upstream and downstream of the networks".

justification for the expenditures that would cause us to change the opinions expressed in the draft report. Our conclusions therefore remained unchanged and the final report was tabled on 21 December.

The work was carried out for and on behalf of Wilson Cook & Co Limited by a team comprising Mr Jeffrey Wilson (team leader), Mr Derek Walker, Mr Bernard Ivory, Mr Steven Cooke and Mr David Edwards.

A list of personnel met during the assessment is given in appendix B.

1.4 Data Used

Unless noted otherwise, the report is based on the proposals and submissions presented by the Corporation to the Authority and on supplementary information prepared by it and submitted to the Authority and us. Where information was not submitted in response to specific questions, we were able, in some cases, to deduce it from responses to other questions. Where necessary and where appropriate, we estimated it. Where we made corrections or adjustments, we have generally indicated this in the text.

1.5 This Report

This report summarises the work carried out, our general observations and our conclusions. It is presented in ten main sections:

Section 1	Introduction (this section)
Section 2	Background and Approach
Section 3	Assessment of the Valuation
Section 4	Key Expenditure-Related Considerations
Section 5	Transmission Capex
Section 6	Transmission Opex
Section 7	Distribution Capex
Section 8	Distribution Opex
Section 9	Comparison with Other Network Businesses
Section 10	Conclusions and Recommendations.

1.6 Abbreviations, Tables and Currency Units

The following abbreviations and terms are used in the text and have the meanings stated:

ERIU	Electricity Reform Implementation Unit
MIMS	Maintenance Information Management System
NIEIR	National Institute of Economics and Industry Research
PB Associates	Parsons Brinckerhoff Associates
PwC	PricewaterhouseCoopers
RPIP	Rural Power Improvement Program
SKM	Sinclair Knight Merz
SWIN	South West Interconnected Network
SWIS	South West Interconnected System

SUPP	State Underground Power Program
the Act	The Electricity Industry Act 2004
the Authority	The Economic Regulation Authority
the Code	The Electricity Access Code
the Corporation	The network business unit of Western Power Corporation
the Government	The Government of the State of Western Australia
the State	The State of Western Australia
Western Power	The network business unit of Western Power Corporation.

"NA" in the tables means 'not applicable' or 'not available' as the context requires; and "c." means circa or 'about'.

Other abbreviations – capex, opex, DORC, GIS, GWh, HV, IT, LV, MVA, ODV, SCADA and the like – have their common meanings.

Sums have generally been rounded and tables may not add for that reason. FY 2005 means the financial year ending 30 June 2005 etc.

Unless noted otherwise, all sums are stated in nominal dollars.

1.7 Probity

The Authority's staff provided guidance in respect of our terms of reference and assisted us with our work. We gave consideration to their advice and requests but are satisfied that none influenced our report or its conclusions inappropriately.

1.8 Earlier Material Superseded

For the avoidance of doubt, we confirm that this report supersedes all earlier written or oral opinions or statements presented by us on the matters discussed.

1.9 Acknowledgements

The cooperation and assistance of the Authority, its management and staff and Western Power in the preparation of the report are gratefully acknowledged.

2 Background and Approach

2.1 Electricity Sector Reform in Western Australia

Western Power's south-west interconnected network in the south-west interconnected system is now regulated by the Authority in accordance with the *Electricity Networks Access Code 2004*. In accordance with the Code, Western Power submitted a proposed access arrangement, access arrangement information and draft technical rules to the Authority on 24 August, 2005. After assessing the compliance of the proposed access arrangement with the requirements of the Code and undertaking public consultation, the Authority is required to issue its decision on the matters included. These steps follow the Government's recent decision to continue with the electricity sector reform process, begun earlier; and they follow on from preparatory assessments undertaken by ERIU for this purpose in 2003 and 2004.

2.2 Western Power's Network Business Unit

Western Power's network in the SWIS consists of transmission and distribution assets extending from Kalbarri in the north to Albany in the south and to the eastern goldfields. It includes 140 transmission substations (of which 12 are bulk supply terminal substations for transformation to lower voltages), 7,036 km of transmission lines operating at voltages of 66 kV or higher, 21 km of underground cables in this voltage range, 68,604 km of distribution mains operating at voltages of 33 kV or lower, 11,775 km of underground cables operating in this voltage range, a total installed transformer capacity of 5,236 MVA, around 190,000 street lights and other ancillary assets. The network supplies electricity to around 875,395 customers of whom 21 take supply at the transmission level, 369 take supply at HV and the remaining 875,005 take supply at LV. [4]

The maximum demand, inclusive of power losses and auxiliary consumption at the power plants, is around 3,260 MW and electrical losses are presently 7.5%. [5] The rate of growth in energy delivered averaged 3.3% p.a. over the three years ending 30 June 2005.

Organisationally, the network business unit, which manages and operates these assets, is structured in nine operational divisions and employs 2,172 full-time-equivalent personnel including employees and contract staff.

The Corporation procures material and equipment for outside suppliers but mostly uses its own resources for planning, designing, installing, maintaining and operating its network.

The Corporation undertakes two State-funded programmes, the State Underground Power Program (SUPP) and the Rural Power Improvement Program (RPIP). [6]

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[4] The data cited is at 30 June 2005.

[5] As reported for YE 30 June 2005.

[6] The SUPP has been in operation since 1996 and is converting overhead power supplies to homes and businesses to underground supply. Round 3 of the programme has recently commenced and will underground a further 5,100 supplies. The RPIP commenced in May 2004 and is a $49 m four-year programme to improve country electricity supplies.

2.3 Documents and Data Received

From the Authority

Documents and data received from the Authority included Western Power's *'Proposed access arrangement for the south west interconnected system owned by Western Power Corporation'* dated 24 August 2005 and the accompanying *'Access arrangement information'* and *'Draft technical rules for submission to the technical rules committee v.1'* (referred to in the report as the draft rules). They also included: relevant material available publicly on the Authority's web site including submissions in relation to the access arrangement received in October and November 2005 from various parties including Western Power and the Department of Treasury and Finance; relevant information on Western Power's expenditures and fixed asset valuation; and copies of correspondence relating to the matters under review by us.

From Western Power

Documents and data requested and received directly from Western Power or through the Authority included its relevant published reports, responses to our questionnaires and copies of other relevant documentation, some or all of which was considered confidential. The following list indicates the type of material received:

(a) Western Power's statement of corporate intent and selected annual reports.
(b) An organisation chart showing the Corporation's staff complement and functional responsibilities of each unit.
(c) 'Strategic asset management plan 2006-2009', Western Power, undated.
(d) 'Transmission and distribution annual asset management report 2005', Western Power, May 2005.
(e) 'Transmission and distribution annual planning report 2005', Western Power, 2005.
(f) 'SWIS transmission network asset management plan 2005/2006', Western Power, 2005.
(g) 'SWIS distribution network asset management plan 2005/2006', Western Power, 2005.
(h) 'Generation *status review 2004'*, Western Power, September 2004.
(i) Miscellaneous data including, for selected cases or years:
    (i) past and proposed expenditures broken down by function;
    (ii) supplementary descriptions of the proposed expenditure items and the reasons for them;
    (iii) details of indirect costs (overheads) assigned to the network businesses unit;
    (iv) details of the cost and nature of services or facilities (other than those covered by overheads) provided to the network businesses unit;
    (v) some information on the method of prioritisation of capital works and the Corporation's current transmission and distribution planning criteria;[7] and
    (vi) selected information on the cost of major projects or programmes included in the capex estimates; and
    (vii) general data including customer numbers, network line diagrams, transmission load and circuit reports, substation peak load reports, forecast demand, energy throughput and electrical losses, network performance statistics and asset age profiles (the last being included in the asset management plans).

[7] Western Power advised us that the *Draft technical rules* reflect its current practice but the rules are not specific. The point is discussed later in this report.

From Other Sources in Western Australia

Documents and data received from other sources in Western Australia included the '*Statement of Opportunities'* published by the Independent Market Operator in July, 2005.

2.4 Adequacy of Information Available

The availability of accurate information within Western Power in respect of its assets is discussed in its asset management plans. The Corporation acknowledges a lack of full information on age and condition, particularly in relation to its distribution assets. The distribution asset management plan acknowledges, for example, that around 70% of equipment in the asset records is without a known installation date. We noted that ages had been assigned to these assets, based on the age of associated equipment, particularly meters, as discussed in section 3 of the report.

In the absence of comprehensive information we considered it reasonable to assume for our purposes that condition was commensurate with age. (We did not consider it necessary to request detailed asset condition information or detailed power planning analyses for our review.) [8]

An impediment to our work arose because the expenditures described in appendix 7 to the access arrangement information – a supporting document containing descriptive material in relation to the expenditures – did not match the level of expenditure proposed by the Corporation in the main document. As a result, the nature of the proposed expenditures was unclear to us. This was pointed out to the Corporation and clarification of the work content of the expenditures in the main document was sought. [9]

Other than in these respects, and whilst there were some discrepancies that remained unexplained and some unanswered questions at the time we concluded our work – particularly in relation to IT and network support costs and to network operational costs [10] – we were generally satisfied that the information received by us was adequate for our purpose.

Western Power did not refuse us any information that we requested and that was considered by us to be material to our assessment.

2.5 Our Approach – Valuation Assessment

In assessing Western Power's proposed fixed asset valuation for the purpose of regulatory control, we note (as Western Power itself did) that the intended purpose of the valuation is solely for regulatory control. We do not, therefore, make any assessment of, or provide any advice in respect of the use of the valuation for general purpose financial reporting, insurance, the sale and purchase of the assets or the business, or any other purpose.

We also noted that the Authority had determined that the valuation methodology should be either DORC or ODV consistent with the requirements of section 6.46 of the Code and thus the alternative methodologies from which the Corporation could choose were limited to two.[11]

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[8] The detailed assessment of network augmentation plans requires comprehensive engineering investigations and network analysis. We did not consider it necessary to request or examine information of this type.

[9] The appropriateness of the expenditure constraints identified by Western Power in its access arrangement information is discussed in section 4.2 of the report.

[10] See section 1.3.

[11] Section 6.46 of the Code requires that: "For the start of the first access arrangement period, the capital base for a covered network must be determined using one of the following asset valuation methodologies: (a) depreciated optimised replacement cost ("DORC"); or (b) optimised deprival value ("ODV")".

We also noted that Western Power proposes to adopt the valuation prepared by PricewaterhouseCoopers (PwC) on behalf of Western Power and ERIU in 2004, adjusted for inflation, depreciation, capital expenditure and disposals which occurred or are forecast to occur from 30 June 2004 to 1 July 2006.

We further noted that the Authority had made and published a determination of the preferred weighted average cost of capital (WACC) methodology to apply to networks covered by the Code, that this determination has effect for five years commencing on 25 February, 2005, and that it will be effective for the first access arrangement submitted for the network. [12]

Given this background, the approach we took to assessing the valuation was to:

- consider the appropriateness of the proposed valuation methodology vis-à-vis the benefits of the alternative depreciated optimised replacement cost (DORC) methodology;
- assess the level of confidence held regarding the correctness of the underlying data and the calculations used by Western Power in the valuation, including the quality of data and degree of estimation and subjectivity involved;
- review the appropriateness of the assumptions made, such as replacement costs, asset lives, asset ages and the approach to optimisation and economic valuation;
- consider whether Western Power's asset registers, including levels of accuracy and maintenance and the extent to which they can be relied upon as a meaningful basis for determining an asset base valuation for the SWIN;
- comment on the appropriateness and accuracy of depreciation schedules applicable to the relevant asset classes;
- identify any other specific issues that in the opinion of the consultant have arisen and may warrant further consideration.

We concentrated on matters that were most material to the valuation or that had the potential to be material.

We noted but did not review the load forecasts and power system studies on which the optimisations were based. Nor did we re-calculate the optimisations or economic tests to take account of changes forecast demand, asset utilisation, the cost of alternative energy supply or other factors, noting that, in all these cases, the adjustments made were not likely to be material to the overall valuation.

Details of our valuation assessment are given in section 3 of the report.

2.6 Our Approach – Expenditure Assessment

We based our assessment of Western Power's proposed capital and operating and maintenance expenditures on the Corporation's access arrangement and access arrangement information, their supporting appendices and the submissions and responses made subsequently to the Authority and to us.

We followed the conventional approach in reviews of this type including, to the extent needed for the purpose of our assessment:

- the identification of key expenditure drivers;

[12] We comment in section 4 on the application of the WACC but not on the appropriateness of the parameters assumed, as that is an economic matter outside our scope of work.

- confirmation of the Corporation's policies for the capitalisation of expenditure;
- a review of the adequacy of the information available to the Corporation on its assets;
- a review of the adequacy of the Corporation's planning processes in terms of the appropriateness of planning criteria, robustness of modelling and decision-making and adequacy of documentation (including asset management plans);
- comment, if necessary, on the comparability of the Corporation's activities with international practice in respect of asset provision, asset utilisation and network reliability;
- the identification of the Corporation's major projects and programmes, their expected outcomes, demonstrated necessity and reasonableness of timing;
- an assessment of the individual expenditure components including the installed cost of new assets, the optimality of design and construction practices, the reasonableness and efficiency of the expenditures proposed for: (demand-related) reinforcement, new connections, asset replacement, reliability and quality improvement , environmental, safety and statutory compliance, SCADA and IT facilities and support plant, equipment and facilities;
- comparison of the proposed levels of capex with past levels;
- consideration of the reasonableness and efficiency of the projected capex in total;
- consideration of the efficiency and reasonableness of the proposed opex under the headings: preventive maintenance, reactive maintenance, etc and in total;
- comparison of the proposed levels of opex with past levels;
- consideration of any new factors impinging on the Corporation to the extent they have not already been assessed under the preceding points;
- a review, to the extent possible, of any resource constraints that might impinge on the Corporation's ability to implement its expenditure proposals fully within the period; and
- a review of comparative performance statistics publicly available in respect of other network businesses.

In doing so, we do not endorse or reject particular costs or projects individually but sought only to satisfy ourselves of the reasonableness and efficiency of the aggregate level of expenditure required. [13]

The normal objective of this type of assessment is that the reviewer should be able to:

- assess the efficiency of the network businesses' expenditure estimates and asset management policies in terms of their match with international practice;
- take into account a natural level of trade-off between capex and opex;
- be satisfied that the proposed expenditures, projects and programmes are consistent with maintaining, or where necessary varying, standards and service delivery capacity;
- form an overall strategic view of whether the businesses' proposed levels of expenditure are reasonable and efficient; that is, whether they represent efficient levels for the defined security of supply and service standards; or

[13] The Business should determine, itself, whether to pursue individual projects within the regulatory requirements.

- if required, be satisfied that they reflect a transitional path from the present level of expenditure to a more efficient level. [14]

We took account of:

- past levels of apparent under-spending from the standpoint of whether it ought to influence future expenditure levels; [15] and
- independent opinions on the projected expenditures or related matters that were made available to us. [16]

We did not:

- review the forecast of demand, accepting the independent verification available to us as reasonable; or
- review Western Power's policies for the capitalisation of expenditure other than to note that the cost of replacing run-to-failure assets is expensed.

Level of Preparation of Projects and Optimality of their Timing

Generally, we considered that the level of preparation of the projects and programmes we reviewed was appropriate for planning purposes, recognising that plans do not constitute, by themselves, a justification for proceeding with work until detailed studies have been prepared and the relevant criteria met. In this context, it is normal for some work to be advanced later on, for other work to be deferred, for some to be amended and for other items to be dropped altogether.

We noted that whilst particular items of expenditure might be justified, the optimality of their timing was more difficult to gauge.

Optimality of Designs and Reasonableness of Construction Costs

We did not receive as much information as we would have liked in respect of the unit construction costs assumed for the estimation of expenditures on the proposed works although we noted that, in general: the procurement of materials and equipment is bid competitively whilst design and installation is undertaken using Western Power's own resources; the designs used appeared to be reasonable; Western Power's geographical isolation means it does not have the same access to outside electrical contractors as businesses in the eastern States; and a high-level review of the cost of construction of new assets, undertaken by the engineering advisers to the valuer and reported in section 3 of this report, had generally found that the construction costs assumed by Western Power in its valuation were reasonable. [17]

Whilst it was not possible to gauge accurately how effective Western power's internal resources and processes are at the implementation of this work, we considered, on balance, and in light of our experience, that the installed cost of new assets was reasonable for the purpose of this review.

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[14] Our earlier review identified the need for this type of approach.

[15] However, the terms of reference did not require a "backward-looking" review of past expenditures and we did not make an assessment of that type, considering only the implications of past expenditures for the future.

[16] These included verification of the load forecast by NIEIR and benchmarking work by PB Associates, Meyrick & Associates and Benchmark Economics. PB Associates' benchmarking work was reported in the main text of the access arrangement information and the other two benchmarking reports were appended to it.

[17] This last observation needs to be qualified by adding that the purpose of assessment differed in that case, but the evidence is nevertheless considered reasonable for the purpose of this section of our report. We also noted from our 2004 work with ERIU that we had received evidence at that time of the reasonableness of Western Power's costs.

Capex v. Opex Trade-Off

We considered at a general level whether Western Power's proposed expenditures exhibited or appeared to exhibit an appropriate trade-off between capital and operating expenditure. Whilst it was not possible to be definitive without carrying out a detailed study, we noted, as did the Corporation itself, that the level of reactive maintenance expenditure is high in relation to the expenditure on preventive maintenance, suggesting that there is insufficient preventive maintenance being carried out and that, given the high levels of distribution system utilisation, the Corporation's augmentation of network capacity is lagging behind the growth in demand. We noted that Western Power has proposed an increase in preventive maintenance and in capital expenditure to redress this balance and to improve distribution network reliability.

Good Industry Practice

The terms of reference required us to have regard to 'industry best practice', applicable legislation, precedent relevant to regulated energy infrastructure in Australia including the objectives in section 2.1 of the Code [18] and the characteristics of the SWIN, as defined in the Act. This we have done. However, when considering whether Western Power's practice constituted 'best', 'good', or 'international' practice or the like, we also had regard to international practice as described in Cigré and CIRED publications, particularly the findings of Cigré/CIRED Working Group CC.01 (Cigré 37.07-CIRED 6) published in October 1995, the *Summary on planning methods for sub-transmission systems* prepared by the same working group and published in *Electra No 138* in 1991, and the considerable body of publications and papers on this subject describing the planning criteria used in the UK, Europe, North America and Australasia as well as other regions. We considered this broader base to be the most appropriate measure of good practice, whilst not losing sight of local factors.

Findings of 2004 Review

We took account of our findings in the expenditure review carried out in 2004 for ERIU but considered the information provided to us at that time to have been superseded by the information in the proposed *access arrangement*, its accompanying documents and the subsequent submissions and responses received from the Corporation. [19]

Reasonableness of Aggregated Projections

As a general principle, we retained the view that whilst each individual project or programme may be justified when considered in isolation, it is still necessary that the aggregated expenditure projection be reasonable. By reasonable in this context we mean that it should bear a suitable relationship to the scale and replacement cost of the network as a whole and the rate of load growth and general asset condition, as well as to any other relevant technical, financial or economic considerations.

Consideration should also be given to any perceived approaching need for increases in the level of capex such as that generated by an ageing asset base but the emphasis given to this factor should be muted by the ability to keep assets in service longer when needed, albeit at the cost of additional opex and possibly additional risk.

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[18] Section 2.1 states the objective of the Code as being "to promote the economically efficient: (a) investment in; and (b) operation of and use of, networks and services of networks in Western Australia in order to promote competition in markets upstream and downstream of the networks".

[19] Wilson Cook & Co Limited was engaged in 2004 by the Electricity Reform Implementation Unit through Energy Market Consulting Associates to assist the ERIU with its review of projected operating and capital expenditure forecasts of Western Power.

We considered these factors to the extent required by our terms of reference when assessing the reasonableness of the overall level of the expenditures proposed.

Benchmarking of Opex

In concluding our opinion, we had regard to the benchmarking analyses presented by Western Power. However, for the reasons explained in section 9 of the report, we carried out our own comparison of its distribution opex with that of other businesses, both excluding its sub-transmission assets and including them. It bears re-stating that benchmarking has recognised limitations and thus, whilst broad comparisons of companies may be made of operational expenditures through benchmarking, various factors complicate the comparisons and require the exercise of considerable judgement when interpreting the results. [20]

We did not attempt a comparison of transmission opex because of a lack of adequate data available to us, the small number of companies involved and the differences between them although we do report Benchmark Economics' findings in respect of transmission in section 9.

Benchmarking of Capex

We did not consider it appropriate to benchmark Western Power's capex with other companies as capex is driven by company-specific factors and thus comparisons with other companies – particularly those based on denominators such as customer numbers or line kilometres – are in our view inappropriate. We considered instead that a company-specific assessment was the correct approach in regard to capex, accompanied by a test of the total level of capex against the replacement cost of the network fixed asset base. We make these comparisons and tests in relation to Western Power in the sections of the report dealing with our assessments of the four main expenditure streams.

Details of Our Assessment

Key expenditure-related considerations are presented in section 4 of the report and our assessment of the four main expenditure streams, *viz:* transmission capex, transmission opex, distribution capex and distribution opex, are presented in sections 5 to 8 respectively.

2.7 Matters Not Considered

The following matters were excluded from consideration in our work:

- expenditures and assets other than those associated with Western Power's network business unit and the SWIN;
- expenditures relating to qualifying capital expenditure projects; [21]
- capital contributions; [22]

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[20] These factors include differences in the type of network, voltage levels, growth rates, customer and load densities, asset ages and condition, load mix, geographic coverage and other factors including service targets. Additionally, some companies may fully out-source their operational and maintenance activities whilst others carry out the work in-house or use a mix of both policies. Different approaches lead to different cost structures. Other adjustments that may need to be made before drawing conclusions include: a check that the period reviewed was typical of expenditure patterns in each business; whether the same asset or expenditure categories have been included in all cases – metering, public lighting and vested assets are sometimes excluded – and whether any exchange rate or other adjustments are required before comparisons are made with off-shore businesses.

[21] These generally related to generation connections and to consequential work and are listed in appendix 8 of the access arrangement. Western Power has included in its estimates the cost of transmission works to connect generating plant that is committed or is an advanced stage of approval and that will result in expenditure during the period. We understand that it has not included other prospective work listed in appendix 8 of the access arrangement. We have not speculated on changes that might occur in transmission expenditure in this regard.

[22] Our assessments therefore relate to gross expenditures, not net.

- expenditures relating to retail contestability or 'system operator' activities except to the extent identified in later sections of the report;
- the possible effects of the following factors that can only be conjectured:
  - requirements for capex related to future safety issues, new statutory requirements, new Government policies or initiatives, or environmental requirements except to the extent that they have been identified by Western Power;
  - possible adjustments in capex stemming from the application of demand management policies other than those already reflected in Western Power's estimates; and
  - any changes from current network planning or design practice; and
- other matters identified elsewhere in the report.

We did not carry out an audit of Western Power's accounts, its asset register or any other item or take any action that might be considered to have constituted an audit but relied solely on the submissions received from Western Power and the representations it made in response to our enquiries.

3 Assessment of the Valuation

3.1 Valuation Methodology

Western Power's Proposal

The terms of reference required us to review and comment on the valuation methodology used including its consistency with the requirements of section 6.46 of the Code. As we noted in section 2.4, the Authority has determined that the valuation methodology used at the commencement of this first access arrangement period should be either DORC or ODV, consistent with section 6.46 of the Code. Thus the alternative methodologies from which the Corporation could choose were limited to these two.

We understand in this context that the primary purpose of the valuation is to provide a periodic valuation of the distribution and transmission networks to allow the determination of access prices.

As already mentioned, we noted that Western Power proposes to adopt the ODV valuation prepared by PricewaterhouseCoopers (PwC) on behalf of Western Power and ERIU as at 30 June 2004, adjusted for inflation, depreciation, capital expenditure and disposals which occurred or are forecast to occur from 30 June 2004 to 1 July 2006. The initial capital base to which the WACC and depreciation apply is the total asset value less the accumulated value of capital contributions. [23] The expenditures that are to be added are net expenditures after making allowance for retirements or removals. [24]

Valuation of Assets for Natural Monopolies

The ODV methodology measures the value of a network asset to an electricity lines business in the absence of a discernible market for such asset categories by determining the optimised depreciated replacement cost of the asset and then testing it economically to determine a deprival value. From a valuation perspective, a significant feature of electricity network businesses is their natural monopoly characteristic. Broadly, there are two valuation approaches which can be applied in this situation, with the ultimate objective of achieving tariff levels consistent with economic efficiency. These are:

- an optimised DRC (DORC) value or a deprival (ODV) value formed by applying the deprival rules to the optimised depreciated replacement cost, discounted cash flow value and net realisable value; and
- a discounted cash flow (DCF) valuation, using tariffs set at long-run marginal cost. This approach explicitly captures the engineering and economic optimisation features of an optimised deprival value approach and should in theory provide the same valuation result where economies of scale have been achieved.

In practice, an ODV valuation is likely to include a cash flow analysis as an overall reasonableness check. Similarly a DCF valuation using marginal cost-based tariffs would probably be subject to an overall reasonableness test against underlying asset values.

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[23] See the access arrangement information, p. 74.

[24] Ibid.

PwC implicitly endorses DORC or ODV as "the most appropriate and objective method for valuing such assets…" on p. 6 of its valuation report. We share that view.

Given the level of understanding and general acceptance within the industry of the DORC and deprival methodologies and the potential the ODV approach provides for achieving consistent valuation outcomes, it is understandable that the Authority preferred these approaches to a DCF methodology and that Western Power should choose an ODV approach in preference to DORC (it sets out its reasoning for adopting ODV on pp. 70-76 of its access arrangement information).[25]

Valuation Not a Ministerial Valuation

We noted that section 6.47 of the Code requires use to be made "to the extent possible" of any "ministerial" valuation. We also noted from correspondence dated 10 March 2005 between the Office of Energy and the Authority that whilst the valuation is not a ministerial valuation, it was considered suitable for the purpose for which it was developed, namely: "to provide Western Power with the basis of its submission to the Authority on the regulatory asset base and to provide ERIU with information that was required in planning for the disaggregation of Western Power". The correspondence also confirmed that a valuation committee which included representatives from Western Power, ERIU and the Department of Treasury and Finance oversaw the preparation of the valuation.

Review of Methodology Used

PwC notes in its report that "the valuation methodology adopted as agreed with the Valuation Committee established by [ERIU] is as set out in appendix A of [its] report". We reviewed the methodology set out in the appendix and noted that the adoption of a "brown-fields" replacement cost approach in preference to a "green-fields" approach (p. 4 of the appendix) and of replacement "in the ordinary course of business" in preference to "large-scale" replacement (p. 6 of the appendix).[26] However, we also noted that "the assumed scale of replacement adopted has been subject to review for reasonableness" (p. 6 of the appendix). [27]

We also noted that allowances for contingencies were included in the standard costs.

Whilst in principle we do not agree with these two components of the methodology for the reason that they may lead to over-statement of the asset replacement costs, we noted from our review of the assumed replacement costs that they were, nevertheless, reasonable.

We noted and agreed with the other key matters identified by the valuer in the executive summary of the report, *viz:*

- Asset ages have been estimated for a significant component of the high and low voltage distribution lines where the asset registers do not contain sufficient information. Asset ages have been estimated by reference to ancillary equipment such as meters [whose ages are known] or specific assessments of age by Western Power as appropriate. [28]
- Easements have been included at historical cost.
- Non-system assets which are not individually material have principally been included on the basis of their net book value.

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[25] The difference between the DORC and ODV valuations is immaterial in dollar terms.

[26] The latter point is noted in the "key assumptions" listed in the executive summary of the report.

[27] An example of the latter is reported in section 4.1.3 on p. 24 in respect of substation bays where it is noted that a Western Power labour cost estimate based on "incremental" substation work was reduced to derive a rate suitable for whole-of-substation estimates.

[28] For example, in the case of substantial reinforcements carried out since 2000.

- The valuation includes contributed assets.

We noted the methods of valuation proposed for property and that underground cables would be valued as such, not optimised to an overhead line value, and agreed with them.

Overall, we were satisfied that the methodology adopted (ODV) and the approach to the valuation described in the appendix were appropriate for the purpose, subject to the particular comments made in the following sections of our report.

3.2 Robustness of Data

The terms of reference then required us to assess the level of confidence held regarding the correctness of the underlying data used.

We noted in this context that PwC's 2004 valuation was the third to have been prepared for Western Power using an ODRC or ODV methodology, the next most recent having been prepared in by PwC in 2000. It followed the original ODV valuation by Ernst & Young and others in 1995. There is therefore an established pattern of valuation work within Western Power, using DORC or ODV methodologies.

The 2004 valuation report summarises the sources of data (section 2 of the report) and the investigatory work carried out in 2000 and 2004 to establish and verify the asset base (section 3 of the report). Further details are given in section 5 of the report in the comparisons of the 2000 and 2004 findings.

We noted the sources used and the discussions that had been held with Western Power staff to establish the asset databases and to decide the key assumptions made. We noted the findings that the primary asset registers "offer a readily identifiable and traceable record" and that Western Power had "taken steps to further improve the quality of data in the Distribution Facilities Information System (DFIS) register where there is incomplete asset data, but that some element of estimation of asset ages and asset specification remains... [particularly for older assets]". [29] We noted the usual lag in the updating of the operational equipment registers (upon which the valuation is stated to be based) for changes in the asset base including additions, particularly in the case of distribution assets.

These are common themes in long-established electricity distribution companies.

We further noted the verification checks reported on pp. 13-18 of the PwC report and were satisfied, given also the established pattern of valuations in Western Power, the nature of the comments made, and the nature of the movements reported between the 2000 and 2004 valuations, that the database was sufficiently robust for the purpose.[30] Therefore, although we considered making further physical checks, we concluded that a sufficient level of comfort existed in relation to the data that had been used and that no additional verification was needed for the purpose of this report.

3.3 Estimates and Assumptions Made

The terms of reference also required us to assess the calculations used by Western Power in its valuation, including the degree of estimation and subjectivity involved and the appropriateness of specific assumptions such as replacement costs, asset lives, asset ages and

[29] The register contains more than 3 million asset records. Transmission line and substation data is readily updated in separate and smaller registers.

[30] 33 distribution feeders had been checked in 2000 and 2004 and between 10% and 67% of (transmission) substations were visited in the SWIS and SWIN in 1995, 2000 and 2004.

the approaches to optimisation and economic valuation. Apart from the key assumptions already discussed in section 3.1, we noted the following points relating to specific matters.

Asset Ages

The methodology for assigning ages to feeders in the absence of full data is set out in section 4.4 of PwC's report and has been described briefly in the preceding section of our report. We note also that the same methodology was used in the 2000 valuation and that the four-year addition made to ages determined from meter ages was to take account of the feeder construction having preceded the installation of service connections and meters. Whilst the accuracy of this assumption will be affected by various factors such as feeder reconstruction, alteration or reinforcement or by meter changes, it is considered as good an approach as any in the circumstances and likely to be of sufficient accuracy for the purpose.

We noted that a methodology had been developed to take account of the different ages of the components within substation circuit bays (see appendix C-3 of the report) and considered it reasonable.

Standard Asset Lives

Distribution wood-pole lines are assigned a 41-year life, based on the estimated number of poles that have been reinforced. Details are given in table B-1H of PwC's report. We considered that the assessment was reasonable.

Other lives are generally consistent with prevailing international practice for similar assets and generally follow those prescribed by the NSW Treasury valuation guidelines. An exception explained on pp. 26-27 of appendix A of the report and on p. 29 of the main text of the report, is the life assumed for transmission wood-pole lives. We reviewed the exception and considered that it is acceptable. [31]

We noted that a methodology had been developed to take account of the increased lives of distribution feeders that had been refurbished or reinforced. Details are given in appendix B-3 of the report. The methodology appeared to be reasonable and is considered acceptable.

Residual Lives

We noted that a residual life of 5 years has been assigned to all assets except meters (for which a 3-year residual life has been assigned) or in specific cases described on p. 30 of the PwC report. Whilst our preference may have been a residual life of 3 years, we consider on balance that the figures assumed may be accepted as reasonable.

Replacement Costs

We noted that the standard replacement costs derived for the modern equivalent replacement assets were compiled from Western Power's in-house distribution system data as explained in section 4.2.1 of the report. We noted that the figures thus derived had been reviewed by the valuer and adjusted where considered necessary.

We noted that the transmission building blocks have been developed using parameters for the key cost inputs of core components and project based contract rates using Western Power, SKM and industry experience for such projects and that reference had also been made to the NSW Treasury valuation guidelines.

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[31] The assignment of longer lives could have been considered for particular types of equipment, e.g. sealed distribution switchgear (of the SF_6 or vacuum type), indoor switchgear generally (as opposed to outdoor switchgear) and power transformers that exhibit good winding condition or are subject to enhanced condition monitoring or maintenance regimes. Such an adjustment is not proposed at this time, however, as any such alterations should be part of a wider programme of reassessment of future lives, following the ongoing improvement of the distribution system asset database.

We reviewed the resulting standard replacement costs as set out in the tables in appendices B-1 and C-1 of the report and compared a selection of assets with equivalent New Zealand Commerce Commission and NSW Treasury costs to check for reasonableness. We noted variations in both directions but confirmed overall that any adjustments we might propose would not be material in the context of the valuation as a whole and that the values used could thus be accepted.

Cost Multipliers and Adjustment Factors

We noted that the unit rates for overhead transmission line building blocks and the various adjustment factors for terrain, wind loading, foundations in coastal areas, length of line and the ratio of angle to terminal structures had been reviewed with Western Power. Details of the factors used are given in appendix C-2 of the report. We considered the factors reasonable.

Optimisation

The optimisation methodology followed is described in section 4.5 of the report and we noted in particular that planning horizons used were 5 years from the time of valuation for distribution and 15 years for transmission. These are both considered reasonable.

We noted that only transformer capacity had been optimised in the distribution network but we were aware from our assessment of network expenditure requirements that feeder utilisation is considered to be high. We therefore accepted the valuer's view that feeder optimisation was not appropriate.

We noted and endorsed, in the case of transmission, the optimisation of outdoor distribution-level switchgear to indoor, the optimisation of certain transformer capacities and associated switchgear, the optimisation of certain below-voltage lines and the optimisation of specific transmission lines. We did not request working papers for these calculations but were satisfied with the explanations presented in the report and the process that the valuer has said was followed.

We noted and accepted in the case of both distribution and transmission that certain optimisations had been reversed in the 2004 valuation.

Economic Optimisation

We noted that economic optimisation had been carried out to derive the ODV from the DORC value. The report indicated that examination had revealed an opportunity to apply $1.6m of optimisation to distribution feeders and that the transmission line from Muja to Kalgoorlie ought to be optimised out with the provision of generation capacity at Kalgoorlie, achieving a $15.1 m reduction in the valuation. We did not request working papers for these calculations but were satisfied with the explanations presented in the report and the process that the valuer has said was followed.

Non-System Assets Valued at Net Book Value

We noted and agreed with the valuation at net book value of non-system assets that are not individually material in terms of the valuation as a whole.

3.4 Asset Registers and Depreciation Schedules

We did not receive or consider it necessary to request for the purpose of this assessment the detailed asset registers or depreciation schedules that underpin the valuation but we did note

and review the summary tables in the PwC report that identify the main components of the valuation and the amounts of depreciation and optimisation applied to each [32]

Of importance, we also noted in section 5 of the report and reviewed the valuer's explanations of the movements that had occurred between the 2000 and 2004 valuations and considered them to be adequately explained and reasonable.

We noted from p.13 of the access arrangement and from p.76 of the access arrangement information that the depreciation method used is straight-line; we consider that to be the normal approach in the industry.

We also noted from section 6.2 on p. 13 of the access arrangement that: "Subject to section 6.3, the annual depreciation provision contained in the target revenue for each year of the first access arrangement period is calculated using: (a) the straight line depreciation method; and (b) weighted average lives for each of the transmission and distribution networks based on the asset lives for each group of network assets as set out in the following table:

Asset group	Asset life for depreciation purposes
Distribution wood pole lines (weighted average)	41
Distribution steel pole lines	50
Distribution underground cables	60
Distribution transformers	35
Distribution switchgear	35
Public lighting	20
Distribution meters and services	25
Transmission transformers	50
Transmission reactors	50
Transmission capacitors	40
Transmission circuit breakers	50
Transmission lines – steel tower	60
Transmission lines – wood pole	45
Transmission cables	55
Transmission non-network assets (weighted average)	16.8
SCADA and communications (weighted average)	34.1

"Depreciation provisions in the target revenue relating to non-network assets such as buildings and information technology and systems are established in accordance with the relevant depreciation schedules applicable for taxation purposes.

"The asset lives applied for the purpose of calculating depreciation in proposed revisions to this access arrangement in accordance with section 4.48 of the Code may differ from those set out in the table in section 6.2(b).

"Circumstances that may justify the application of asset lives in proposed revisions to this access arrangement that differ from those shown in the table in section 6.2(b) include but are not limited to: (a) technological change; (b) changes in the needs and preferences of users,

[32] See the tables on pp. 7, 8 and 46-49 of the main text of the report and the tables in appendices B and C.

leading to increased risk of stranded assets; and (c) unanticipated changes in the rate of deterioration of assets." [33]

The lives assigned in the valuation report are consistent with this statement with the exception that 33 kV wood-pole transmission lines are stated in the valuation report (table C-1) to have a life of 60 years, not 45. However, it appeared from table C-5 of the valuation report that the ODV of this asset group is only around $1.6 m so the apparent error is immaterial.

3.5 Valuer's Assessment of Level of Accuracy

We noted that the valuer had discussed the accuracy of the stated values in several places in the report, particularly on p. 50, concluding: "Accordingly on balance, we consider that the single point values presented [in the tables on the preceding pages of the valuation report] may be marginally below the mid point of the acceptable valuation range and has a level of accuracy within +/- 10%. We do not consider this level of accuracy to be unreasonable for a valuation of this nature."

Whilst the margin of error can only be conjectured, we also consider that this is a reasonable range to assume and thus consider that the overall ODV valuations of the SWIN system arrived at as at 30 June 2004, and stated on p. 48 of the valuation report as $ 1,963.2 m for distribution and on p. 49 as $1,190.9 m for transmission, can be accepted for the Authority's purposes.

3.6 Adjustment of Valuation to June 2006

Finally, we noted and reviewed the adjustments shown in tables 9 and 10 on pp. 78 and 79 of the access arrangement information in respect of transmission assets and in tables 20 and 21 on p. 120 in respect of distribution assets to derive a valuation at 30 June 2006. We considered the methodology of the roll-forward to be sound and found that the opening values of the tables were correctly matched to PwC's valuation report. Adjustments for work in progress at 30 June 2004, escalation to 30 June 2006 and disposals also appeared to be reasonable. We did not, however, consider ourselves competent to express a view on the correctness of the adjustments made for the written-down value of capital contributions at 30 June 2004 or for capital expenditure or depreciation in the two years ending 30 June 2006 as their verification is an accounting matter. We did, however, consider that the figures appeared to be reasonable.

We had no reason to consider Western Power's capital expenditures during the period 1 July 2004 to 30 June 2006 to have been or be imprudent.

We thus formed the opinion that the estimated valuation at 30 June, 2006 (*viz:* $1,369 m for transmission plus $1,482 m for distribution) has been prepared in accordance with the ODV methodology, is thus consistent with the requirements of section 6.46 of the Code and may be accepted as reasonable and appropriate for the intended purpose.

[33] Source: section 6 of the access arrangement.

4 Key Expenditure-Related Considerations

4.1 Expenditure Drivers and Initial Estimates

The expenditure drivers identified by Western Power – other than the usual ones such as the need to meet demand growth, replace ageing assets and maintain and operate a growing asset base, etc – were:

- the impact of previous budget constraints and a stated consequential backlog in the maintenance and replacement of its assets;
- forecast increases in generation capacity and the resulting transmission expenditures resulting from new connections after a period of relative inactivity in this area;
- correction of high levels of transformer utilisation;
- better asset management, leading to more maintenance expenditure;
- other reliability improvement programmes;
- compliance with more onerous safety, and health and environmental regulations;
- market reform and a resulting need for IT expenditure; and
- increasing resource and service costs of various types. [34]

Western Power then engaged Parsons Brinckerhoff Associates (PB Associates) to assist it with a "detailed and comprehensive assessment of its capital and operating expenditure necessary to deliver all the required performance outcomes (safety, new customer connections, reliability, prudent asset management, etc.)". The expenditure report, presented in appendix 7 of the access arrangement information, "details Western Power's expenditure needs, taking account of resource constraints but assuming no financing or pricing constraints" (see the access arrangement information, pp. 59-60). [35]

4.2 Subsequent Constraints on Capital Expenditure

Resource Constraints

The Corporation said that in relation to the transmission network, its "pre-constrained" capital expenditure estimate "showed a significant increase in requirements" compared to recent historical levels. It said that "the challenge facing the network business is to balance these increased capital expenditure requirements against the inevitable resource and financing constraints that must also be addressed" (source: access arrangement information, p. 60). [36]

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[34] Paraphrased from the access arrangement information, p. 6.

[35] We were advised that PB Associate's assistance to Western Power during the preparation of its access arrangement information was more internal in nature than an independent review of the type concluded in 2004 and that an independent report from PB was not available. PB Associates had also reviewed Western Power's expenditures in 2004 and its reports were made available to us through ERIU at that time and in relation to that work. However, as already mentioned, that information was assumed to be superseded by Western Power's 2005 information, submissions and responses to the Authority.

[36] Its position was similar in the case of distribution capex (access arrangement information, p. 103) but opex does not appear to be constrained, only "minimised" (access arrangement information, pp. 67 and 115).

The Corporation briefly summarised its main strategies for meeting the challenge of resource constraints. They include: extending the capability of in-house resources, encouraging the external market to build up its capacity to assist, and improving programming and work management systems (source: access arrangement information, p. 60). [37]

Financial Constraints

The Corporation also, briefly, described the financial constraints, saying: "In addition to resource constraints, Western Power must also take into account the financing and pricing constraints that impact on the aggregate level of capital expenditure. In particular, the proposed capital expenditure *has been strictly limited to Government-approved SDP levels in 2005/06* [38] and ramped up in subsequent years, commensurate with the assessed ability of industry to progressively increase its resource capability to undertake the higher expenditure levels" (source: access arrangement information, p. 61).[39] [40]

It said on p. 61 of the access arrangement information that: "The capital expenditure forecast presented in figure 8 shows the combined effect of the resource and financing constraints. Overall, the figure shows that in aggregate the capital expenditure proposals are *substantially below the capital expenditure requirements determined in the pre-constrained analysis conducted by Western Power and PB Associates*. Western Power's view is that the proposed expenditure reflects an *appropriate balance between the unconstrained expenditure requirements of the network; the resource constraints that limit the achievement of increased expenditure without compromising efficiency considerations; and the financing and pricing considerations that must also be considered*. [41]

However, it then added on p. 62: "Inevitably, capital expenditure which is less than the unconstrained requirements of the network will lead to higher life-cycle costs and/or lower levels of service than would otherwise be the case. With this consideration in mind, Western Power must prioritise its expenditure in a manner that, firstly, ensures that the business complies with safety, environmental and other mandatory statutory requirements. Once these requirements have been satisfied, Western Power will further manage the expenditure constraints to minimise any adverse impact on customers (in terms of both reliability and total life cycle costs)."

It is clear from the following statement on p. 8 of the access arrangement information that the financial constraints have been proposed after consultation with the Government: "*Following discussions with Government in its role as shareholder, Western Power has further reduced its proposed level of expenditure for this forthcoming access arrangement period in the light of these financing and pricing considerations. In aggregate the impact of these financing, resourcing and pricing constraints produces expenditure proposals that are significantly below those justified by business needs and validated by PB Associates"*

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[37] We comment later in this section on the resource constraints facing the electricity supply industry at the present time.

[38] The emphasis has been added by us.

[39] We asked for a copy of the Corporation's Strategic Development Plan (SDP) – which we understood from our work in 2004 to be the (or one of the) Corporation's principal performance agreement(s) with its shareholding ministers. The request was declined. After consideration, and in light of the fact that our task was to review the expenditures proposed for the access arrangement period, we did not consider it necessary to pursue the request.

[40] The Corporation's statements in various places in its access arrangement information that its capital expenditure has been or is still constrained is a separate matter of relevance in the context of the impact of past levels of expenditure on future expenditure requirements. That matter is discussed in section 4.5 of the report.

[41] The emphasis has been added by us.

Extent of Resulting Reduction in Capex Estimates

To put the constraints in perspective, the reductions made in capex appear to be around 50% of the unconstrained expenditure projection in the case of transmission capex and 40% in the case of distribution capex. [42] [43]

4.3 Observations on the Reductions in Capex

Network Performance v. Expenditure

Whilst we agree that a substantial increase in expenditure is needed from historical levels, we remain troubled by the perceived ambiguity in the Corporation's statements and the premise that its expenditure can be cut back to such an extent (after having been studied comprehensively by its expert advisers) whilst its projected network performance targets (principally SAIDI) are still met – unless they also were cut back or were not sufficiently challenging in the first place. [44]

We consider this further in later sections of the report.

Validity of the General Proposition

In addition to the point about the match between network performance targets and expenditure, we were unconvinced by Western Power's general proposition that since less capital expenditure is requested than required, that which was requested is efficient and justified. Our view was that all expenditures ought to be justified and we consider the justifications in our assessments and conclusions in the following sections of the report.

4.4 Impact of Past Levels of Expenditure

We considered whether past levels of capital expenditure were influencing the present expenditure proposals. Western Power's position is that its capital expenditure has been constrained. For example, it said that: "given the substantial growth in new customers over the same period, the consequence of the budget constraints has been to defer expenditure in relation to replacement and maintenance of the existing assets. This resulting backlog in works now needs to be addressed" (access arrangement information, p. 6) and: "Western Power's view is that the current level of expenditure is not sustainable, and will need to increase in the forthcoming access arrangement period. Further details of the reasons for the increase are provided below" (access arrangement information, p. 3). Other similar statements could be cited. [45]

The content of the submission received by the Authority from the Department of Treasury and Finance and dated 10 November, 2005 is relevant to the point and was also noted. On p. 2 of its submission, the department states that: "WP's total capital budget has traditionally

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[42] The figures are approximate as the data presented in the access arrangement information is graphical.

[43] When we pointed out the difficulty of attempting to assess the reduced level of expenditure finally proposed when the supporting documentation (in appendix 7 of the access arrangement information) related to different data, Western Power said that reductions largely related to customer-driven work – at least in relation to transmission expenditure. Whilst that is the case to some extent, it does not explain all the reductions – and it is not an explanation that is consistent with the other explanations made for the reductions, *viz:* resource and financial constraints. We did not, therefore, place any weight on that advice.

[44] We return to discuss distribution network reliability targets in section 7.4 of the report.

[45] Not every asset that is over-age needs to be replaced or should be considered to be part of a backlog, however.

[been] under-spent and, therefore, there has been some capacity for networks to spend more".[46]

Irrespective of the reasons given for past levels of expenditure, we noted high levels of distribution feeder utilisation on Western Power's system, continued growth in demand and an apparent deterioration in distribution network reliability, all of which suggested that the level of expenditure would need to be increased to ensure satisfactory network performance in the future. We took that into account when forming our opinion.[47] [48]

4.5 Sharper Focus Needed on Outcomes and Efficiency

Whilst recognising the improvements made in Western Power's documentation since 2004, we formed the view that its expenditure plans at the distribution level still tend to lack definition. By that we mean that a lack of finality in the documented asset management strategies and an accompanying, apparent, lack of targeting of expenditure are evident.[49]

This lack of definition is reflected in: a tendency to the generalised rather than to the incisive; marked differences in the levels of expenditure identified in the asset management plans and those presented in subsequent, higher-level documents; a lack of apparent confidence that the business "knows what it needs, is focussed on outcomes and efficiency, and knows what it needs to spend to achieve the desired result"; and a high level of expenditure on un-planned maintenance and reactive work compared with planned work, implying a shortfall of expenditure overall on the premise that only essential work is being done.

It was not clear to us that the business is focussing strongly enough on the factors most affecting network performance or on the actions needed to achieve results. This was evidenced by a lack of up-to-date strategies for specific classes of asset, slow progress on items previously identified as important, and the Corporation's view that it is under-resourced. It may also be a factor in the Corporation's lack of willingness to set more aggressive network performance targets or efficiency and innovation benchmarks.

This situation could be symptomatic of a number of factors, including a preoccupation over the last year or so with 'fire-fighting' or 'catch-up' activities; inadequacies in the data available (something that most distribution businesses in Australasia have already corrected or are well on the way to correcting); or problems inherited from the past.[50]

A stronger focus is needed on outcomes and efficiency, rather than on processes, combined with well-targeted capital investment.

A beneficial outcome of more focussed thinking is likely to be the more convincing articulation of expenditure requirements and their accompanying benefits, thus lessening the likelihood of refusal or reduction by higher levels of management or during the shareholder approval phase.

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[46] We ourselves noted in 2004 that we did not find adequate evidence to support the contention of a maintenance backlog (which is not to say that one did not exist, only that it was not made evident to us) and we also noted that the Corporation had been under-spending against its own budgets for growth and replacement capex but not for reactive maintenance.

[47] The principal causes of outages were apparently asset failures dues to overloading and physical failure.

[48] The analysis is presented on pp. 36-38 of the access arrangement information. However, we were not fully convinced by the arguments on pp. 37 and 38 as the figures on those pages are affected by a change in the basis of measurement during the period graphed, the particular selections of periods through which the trend lines are drawn, the small number of years for which comparable data was available and possibly other factors.

[49] We reached a similar conclusion in 2004.

[50] The reported problems of clashing conductors on rural lines may be an example of the last point as it suggests that the original design was deficient.

No doubt this will need to be accompanied by further cultural change in the organisation as it moves into the new era.

(For reasons we give later, it might also, desirably, be accompanied by a focus on the reduction of indirect costs.)

4.6 Planning and Design Criteria and the Draft Technical Rules

The Corporation has documented its network planning criteria, including security of supply criteria, permissible voltage limits and permissible plant loading guidelines in its *Draft technical rules* and these are under review by the Authority's technical rules committee with the assistance of PB Associates.[51] We did not review the rules ourselves other than to note their general content.

We noted that the access arrangement information refers (on p. 6, item 5 of table E4) to the application of new design standards to achieve a reduction in substation transformer loading but the Corporation made separate references in statements to us to proposed changes in the after-diversity maximum demand to be assumed for distribution system planning purposes and to other "incremental" changes in the need for customer-driven distribution capex. We were not able to discern details such as this in the draft rules, noting instead that clause 2.10 on p.38 of the rules incorporates the general statement that: "all residential subdivision networks will be designed to supply the 50-year maximum load anticipated for that area". Other than observing that that generalised statement would be open to a wide range of interpretations, we noted that the proposed changes would affect both distribution and transmission expenditures and that whilst LV and HV mains expenditure may be recoverable through increased levels of capital contribution, reinforcement expenditure elsewhere in the system may not.

We understand that the cost of these changes has not been included in the estimates in the access arrangement information. However, should these changes be endorsed by the committee and be included in the approved technical rules, a corresponding increase in forecast distribution capital expenditure would be proposed by Western Power. [52]

4.7 Overcoming the Resource Constraints

As a final observation in this section of the report, Western Power is not alone in requiring additional resources to undertake its network expansion and refurbishment programmes. We therefore considered again whether the Corporation would be able to implement its plans. Whilst the answer can only be conjectured, we see no reason why Western Power, along with others in the country and worldwide, cannot gear up for the additional workload foreseen, providing it does take concerted action for the purpose. [53]

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[51] The committee's review was not completed by the time of writing our report.

[52] Source: Western Power's covering letter of 24 August 2005 to the Authority, accompanying the proposed access arrangement. Western Power also noted that there would be an accompanying increase in capital contributions if the changes were endorsed.

[53] Its plans were noted in section 4.2.

5 Transmission Capex

5.1 Forecast Demand

The Code requires that the access arrangement information must include information detailing and supporting the service provider's system capacity and volume assumptions. We have briefly reviewed sections B2 and C2 of the access arrangement information in this regard, noting the methodology used for preparation of the forecasts. We have also noted the independent report in appendix 3 of the access arrangement information in which NIEIR review the suitability of the Corporation's forecasts of energy and peak demand for the purpose of establishing the access agreement. [54]

We note from the material provided to us that the forecast rate of growth in energy throughput over the period is projected to continue at its present level of 3.3%. Our experience suggests that that assumption is reasonable for the purpose of our review although this should not be taken as an endorsement of the forecast as we have not reviewed it. [55]

5.2 Proposed Expenditure

Western Power has proposed $514.7 m of capex on the transmission system over the period. Year-by-year historical and forecast expenditure is shown in Table 5.1.

A significant increase in expenditure is proposed, compared with the historical level. A comparison of the proposed average annual expenditures over the period with average expenditures over the previous three years, shown in Table 5.2, indicates a 63% increase.

The principal expenditure drivers are said to be:

- the impacts of previous budget constraints;
- facilitation of market reform;
- asset replacement;
- the connection of additional generation capacity;
- achieving and maintaining network performance in accordance with approved planning criteria; and
- compliance with more onerous safety, health, and environment regulations.

The impact of these factors is discussed under the various capex headings below or in the preceding general sections.

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[54] NIEIR: The National Institute of Economics and Industry Research.

[55] We noted that the service provider's forecasts should be reconcilable with the forecasts presented in the *Generation status review* (now titled the *Statement of opportunities).* The Corporation has apparently been unable to reconcile the forecasts in the 2005 *Statement of opportunities* with its own estimates – see Western Power's letter of 24 August, 2005 and its access arrangement information, p. 49 – but NIEIR has confirmed that the forecasts are "consistent with the transmission energy forecasts published in the 2004 GSR" (source: access arrangement information, p. 48). We noted that the expenditures we reviewed were based on the Corporation's own, verified, load growth forecasts and we were satisfied that that was appropriate for our purposes.

Table 5.1: Historical and Proposed Transmission Capex ($ m)

YE 30 June	Actual			Forecast	Proposed		
	2003	2004	2005	2006	2007	2008	2009
Network - demand related							
System capacity	83.0	78.0	66.2	81.2	83.0	103.4	110.5
Customer driven (bulk loads)	0.3	2.1	2.2	12.7	17.4	2.7	0.0
Customer driven (generation)	0.3	2.9	42.9	71.6	47.9	25.7	20.1
	83.6	83.0	111.2	165.4	148.3	131.8	130.6
Network - non-demand related							
Asset replacement	3.3	5.2	5.5	9.1	9.9	13.5	18.0
Safety, environmental and statutory	0.1	0.2	1.5	5.1	5.4	8.1	8.1
Reliability driven	0.9	1.3	0.7	1.2	1.8	1.8	1.8
	4.3	6.7	7.7	15.4	17.1	23.4	27.9
Other							
SCADA and communications	4.5	3.8	2.0	3.4	3.2	1.5	3.4
IT including market reform	0.5	0.4	1.1	2.6	5.9	4.2	4.8
Support	1.6	1.3	4.9	4.2	4.5	4.1	4.1
	94.5	**95.2**	**126.9**	**191.0**	**178.9**	**165.0**	**170.8**

Source: Western Power (as amended, November 2005).

Table 5.2: Comparison of Average Historical and Proposed Transmission Capex ($ m)

YE 30 June	Average Historical	Average Proposed	Increase (%)
Network - demand related			
System capacity	75.7	99.0	31
Customer driven (bulk loads)	1.5	6.7	346
Customer driven (generation)	15.4	31.2	103
	92.6	136.9	48
Network - non-demand related			
Asset replacement	4.7	13.8	196
Safety, environmental and statutory	0.6	7.2	1,080
Reliability driven	0.9	1.8	90
	6.2	22.8	267
Other			
SCADA and communications	3.4	2.7	(21)
IT including market reform	0.7	4.9	628
Support	2.6	4.2	61
	105.5	**171.6**	63

5.3 System Capacity Expenditure

Western Power is proposing to spend an annual average of $99.0 m on increasing transmission system capacity over the period, compared with an average of $75.7 m over the previous three years. This represents an increase of 31% and is the biggest increase numerically in the expenditure categories. Expenditure is forecast to rise from $83.0 m in the first year of the period to $110.5 m in the third year.

System capacity expenditure includes all demand-driven reinforcement of the transmission and sub-transmission systems, including zone substations. The primary driver is said to be peak demand growth, driven by the increasing use of air conditioning systems by residential and commercial customers, new residential developments, in-fill growth in mature suburbs and isolated larger customers such as retail, industrial and mining developments.

A second driver is the high level of asset utilisation presently being experienced, reflecting a lack of adequate expenditure in this area over recent years and a consequential lack of available capacity to meet recent, rapid, load growth. Evidence was given to us in support of the statement of present high plant utilisation.

The increased use of cable in place of overhead lines was said to be another factor.

The expenditures are said to be required notwithstanding the steps already taken to increase the permissible current ratings of certain overhead lines by re-stringing them (with reduce sag and increased ground clearances) and raising the maximum conductor operating temperatures.

We were provided with a list of 144 possible projects totalling this amount, ranging in size up to $16 m. The Corporation noted, correctly, that the mix of projects is expected to change but that it considered that the estimate in total was reasonable. Details of the projects were not requested although the need for expenditure was discussed, along with its salient features.

We reviewed the relevant planning standards and proposed network developments as outlined in section 2.3 of the *Transmission and distribution annual planning report 2005* and the draft rules and found them to be reasonable and appropriate and generally in accordance with international practice.

We also noted that the Corporation had engaged PB Associates to assist it with a "detailed and comprehensive assessment of its capital and operating expenditure necessary to deliver all the required performance outcomes (safety, new customer connections, reliability, prudent asset management, etc.)". (Source: access arrangement information, p. 59.)

The access arrangement information notes that the expenditure report attached to it (appendix 7) "details Western Power's expenditure needs, taking account of resource constraints but assuming no financing or pricing constraints". We reviewed appendix 7 and noted that it contained further descriptive material but did not support the proposed expenditures directly because it did not describe the work content that could be funded by the expenditures proposed in the main document. This was pointed out to the Corporation and clarification of the items of expenditure covered by the proposed estimates in the access arrangement information (the "constrained estimates") was sought and received.

Subject to the comments made in section 4, we were satisfied with the explanations received.

Level of Expenditure in Relation to Asset Base

Noting that a replacement value of the transmission assets at 30 June 2006 was estimated (by us) to be $2,649 m, we calculated that the proposed annual system capacity expenditure of $99.0 m represented 3.7% of the replacement cost of the transmission assets as a whole, compared with a forecast rate of increase in demand of 3.3% p.a. [56] Whilst that may appear reasonable, we also noted that additional capacity required due to load growth is being met

[56] The replacement cost of transmission assets of $2,248 m at 30 June 2004, reported on p. 49 of PwC's valuation report, plus other non-system assets (ibid) and major work in progress reported on p. 78 of the access arrangement information was used as a basis for the denominator in this calculation. Escalation was applied at the rate used in table 10 on p. 79. Gross capital expenditure, including vested assets, was added and disposals were allowed for at 1.5% p.a. to give an estimated replacement cost as at 30 June 2006 of $2,649 m.

under the connection-driven capex heading with an accompanying further expenditure and it is discussed in the next section.

5.4 Connection-Driven Expenditure

Western Power is proposing to spend an annual average of $37.9 m over the period on connection-driven work (referred to as customer-driven work in the tables and in Western Power's information) compared with an average of $16.9 m over the previous three years. This represents an increase of 124% and is the second-biggest increase numerically in the various expenditure categories.

The projections are understood to include the cost of transmission works associated with new generation capacity in the *Generation status review* of 2004 or with new generation capacity that was notified subsequently and is at a well-developed stage. The projections do not, we understand, include prospective extensions of the 330 kV network to the north-country region or to Kemerton, or the installation of converters on the line to the eastern goldfields region, or any works listed in appendix 8 of the access arrangement as qualifying capital expenditure projects. [57]

The projections also include the cost of transmission works (including zone substations) associated with new customer bulk loads.

In each case, work includes associated upgrades and augmentation related to the connection as well as the connection itself.

We were provided with a list of 22 possible projects totalling this amount, ranging in size up to $23 m. The Corporation noted, correctly, that the mix of projects is expected to change but that it considered that the estimate in total was reasonable. Details of the projects were not provided or requested.

The expenditure is contingent on customer developments and the commissioning of new generation capacity, both of which are uncertain. Of particular relevance, we note the uncertainty that surrounds the timing and location of future generation capacity additions and the consequential uncertainties that surround the need for transmission system investment.

No vested assets are foreseen.

Most of this expenditure is expected to be funded by the initiator of the work – the bulk load customers of the generators – and therefore any increase or decrease in expenditure should be matched by corresponding increases or decreases in capital contributions.

We were not able to form a view on the precise nature or efficiency of particular expenditure items, given that lack of detailed information available, but were satisfied for the purpose of our high-level review that the proposals were reasonable in total.

5.5 Asset Replacement Expenditure

Western Power is proposing to spend an average of $13.8 m p.a. on asset replacement over the period, compared with an average of $4.7 m over the previous three years. This represents an increase of 196%. Expenditure is forecast to rise from $9.9 m in the first year of the period to $18.0 m in the third year.

We were provided with a list of 41 possible projects totalling this amount, ranging in size up to $4 m. Details of the projects were not provided or requested.

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[57] The Corporation confirmed that no projects on that list were included in the estimates; and a check we made of the two did not reveal any overlap.

We reviewed the transmission asset management plan and noted the reasons for the proposed replacement capex.

To put the proposed level of expenditure in context, we note that it constitutes around 0.5% of the replacement cost of the transmission asset base. Notwithstanding its increase, it is at too low an annual average level to sustain the asset base in the long term. Having said that, the transmission system's performance appears to be adequate and the expenditure may well be sufficient for the short-to-medium term. We do not therefore recommend an increase in this item for the period.

5.6 Safety, Environmental and Statutory Expenditure

Transmission-related expenditure for safety, environmental and statutory reasons is projected to be an average of $7.2 m p.a. over the period, compared with an average of $0.6 m over the previous three years. Expenditure is forecast to rise from $5.4 m in the first year of the period to $8.1 m in the third year.

The biggest item ($6 m) relates to river crossing improvements and the remainder relate to a mix of projects. We were provided with a project list totalling the expenditure requested. We considered that the works appeared to be justifiable although the optimality of their timing could not be gauged.

5.7 Reliability Expenditure

Reliability-related expenditure of $1.8 m p.a. was noted and considered reasonable.

5.8 Other Expenditure

Other expenditure on the transmission network includes an average of $2.7 m for SCADA (down from the previous period), $4.9 m for IT (including market reform) and $4.2 m for support.

SCADA

Western Power is proposing to spend an average of $2.7 m p.a. on SCADA and communications capex over the period. This is a reduction of 21% on the average expenditure over the previous three years. We have reviewed the SCADA and Communications Strategic Plan and the major projects proposed over the period and consider that the expenditure is justified and is reasonable.

IT Expenditure

Western Power is proposing to spend an average of $4.9 m p.a. on IT capex over the period, compared to an average level of just $0.6 m over the previous three years. The Corporation stated that due to uncertainty over business reforms, expenditure on new IT capital projects has been put on hold for 2-3 years. The increase is needed to replace aging systems and to meet the needs of the new business structure

Our assessment is that Western Power needs to improve its information systems and its database for network planning and management purpose and that it will also need to develop new systems for business separation. We conclude that the proposed expenditure is reasonable.

Network Support

Western Power is proposing to spend an average of $4.2 m p.a. on network support capex over the period, compared to an average of $2.6 m over the previous three years. This represents an increase of 61%, although the average expenditure is similar to that incurred in FY 2005 and proposed for FY 2006. We considered the expenditure proposed to be reasonable in the context of the increased overall level of capital expenditure compared to the historical level.

5.9 Reasonableness of Total Transmission Capex

The average annual transmission capital expenditure over the period of $171.6 m equates to around 6.5% of the replacement cost of the transmission network asset base. [58] This level is at the high end of the range that we would consider reasonable for a transmission business experiencing load growth of 3.3% p.a. and represents a significant increase on historical expenditure levels. There are, however, a number of valid reasons for accepting this level of expenditure during the period including, particularly, the need to meet forecast load growth and to provide connections for new generation. On balance, we considered the level of total transmission capex to be acceptable.

[58] The calculation of the asset base is discussed in footnote 56.

6 Transmission Opex

6.1 Proposed Expenditure

Western Power has proposed $248.8 m of opex on the transmission system over the period. Year-by-year historical and forecast expenditure is shown in Table 6.1.

Table 6.1: Historical and Proposed Transmission Opex ($ m)

YE 30 June	Actual			Forecast	Proposed		
	2003	2004	2005	2006	2007	2008	2009
Maintenance Strategy	2.5	3.8	3.8	3.9	4.0	4.1	4.2
Preventative Condition	5.9	5.9	7.0	6.2	6.0	6.1	6.2
Preventative Routine	7.8	6.6	7.9	8.7	8.1	8.3	8.5
Corrective Deferred	3.1	2.9	3.7	2.0	2.1	1.9	1.9
Corrective Emergency	2.0	0.6	1.1	1.0	1.0	0.9	0.9
Maintenance (Total)	21.3	19.8	23.5	21.9	21.2	21.3	21.7
SCADA & Communications	1.9	3.1	2.4	5.3	5.4	5.6	5.7
Network Operations	7.7	8.9	8.2	9.5	12.1	13.3	13.2
IT&T	4.8	5.7	4.6	6.2	6.6	7.3	7.8
Network Support	16.4	16.4	21.3	28.3	31.6	35.5	40.6
Transmission Total	**52.1**	**53.9**	**60.0**	**71.2**	**76.9**	**82.9**	**89.0**

Source: Western Power.

Opex has been increasing steadily since FY 2003 and is forecast to keep increasing over the period. The Corporation states that the principal drivers of the increases in transmission opex from historical levels are:

- the impact of previous budget constraints;
- facilitation of market reform;
- facilitating the connection of additional generating capacity;
- compliance with more onerous safety, health and environment regulations;
- optimisation of maintenance expenditure; and
- increased insurance costs.

The impact of these factors is discussed under the headings below or in the preceding general sections.

A comparison of average expenditures proposed over the period and average expenditures from the previous three years of actual data is presented in Table 6.2. It shows that the average annual opex proposed is 50% higher over the period than in the previous three years.

Western Power states that it "has also sought to minimise the required increase in expenditure, recognising the costs drivers in the forthcoming regulatory period, the resource constraints, and the need to provide customers good value for money."[59] It goes on to say

[59] See the access arrangement information, p. 67.

that it "does not believe that it would be appropriate to constrain transmission [opex] to the same extent as [transmission capex]" for the reason that such constraints would expose the Corporation and its customers to excessive risk in respect of the long-term performance of the network. The Corporation considers it essential that all reasonable endeavours are made to increase preventive maintenance to levels that are consistent with good industry practice and that it has sufficient resources to comply with its health, safety and environmental obligations within reasonable time frames.

Table 6.2: Comparison of Average Historical and Proposed Transmission Opex ($ m)

YE 30 June	Average Historical	Average Proposed	Increase (%)
Maintenance Strategy	3.4	4.1	21
Preventative Condition	6.2	6.1	(3)
Preventative Routine	7.4	8.3	12
Corrective Deferred	3.2	2.0	(39)
Corrective Emergency	1.3	0.9	-27.2
Maintenance (Total)	21.5	21.4	(1)
SCADA & Communications	2.5	5.6	126
Network Operations	8.3	12.9	56
IT&T	5.1	7.2	43
Network Support	18.0	35.9	99
Transmission Total	**55.4**	**82.9**	50

The Corporation has undertaken to deliver opex efficiency gains for the network business unit as a whole of $10 m in FY 2006 and $20 m in FY 2007 and FY 2008. It outlined the main items in discussion with us, referring to savings anticipated in the cost of procurement of materials and bushfire clearance contracting.

6.2 Maintenance Expenditure

Western Power is proposing to spend an average of $21.4 m p.a. on maintenance over the period, a similar level to the average of $21.5 m over the previous three years. Expenditure is forecast to be similar in each of the three years of the period.

We noted that corrective maintenance was approximately 14% of total maintenance expenditure, much lower than the proportion of corrective maintenance for distribution. However the Corporation has stated that there is a back log of preventive maintenance and that an increase in expenditure on preventive maintenance is planned from FY 2006.

We reviewed the list of key maintenance activities proposed by the Corporation and found them to be appropriate.

The average annual maintenance expenditure including the expenditure for the period equates to around 1% of the replacement cost of transmission network assets. We considered that to be reasonable.

6.3 Network Operations Expenditure

Network operations expenditure is the transmission-related share of the costs of the Systems Operations Group which provides control, switching, operations planning and monitoring for both the transmission and distribution networks.

Western Power is proposing to spend an average of $12.9 m p.a. on network operations over the period, compared to an average of $8.3 m over the previous three years, an increase of 56%. Expenditure is forecast to rise from $12.1 m in the first year of the period to $13.2 m by the end of the period. Expenditure has been rising steadily since FY 2003 when it was $7.7 m.

Subsequent information provided to us by Western Power indicates that, of the proposed expenditure, sums of $2.1 m in FY 2007 and $2.3 m in FY 2008 and FY 2009 relate to system management activities and should be removed from the forecast expenditures in the access arrangement as they will be recovered from market participants via a separate mechanism under the Wholesale Electricity Market Rules.

With these adjustments, the average expenditure proposed for the period drops to $10.7 m, an increase of 29% on the average spent over the previous three years. The Corporation considers that this increase is driven by three factors: projected increases in labour costs of 4% and in materials costs of 1%; an increase in the size of the asset base as a result of the capital investment programme, requiring extra SCADA support staff; and an increase in operational personnel to carry out administrative tasks and data-gathering, following completion of the SCADA capital project. We accepted the explanations and the revised expenditure as reasonable.

6.4 Other Expenditure

Scada and Communications

Western Power is proposing to spend an average of $5.6 m p.a. on SCADA and communications opex over the period, compared to an average of $2.5 m over the previous three years. This represents an increase of 126%. Similar levels of expenditure are forecast for each of the three years of the period.

We noted that there is a step increase in expenditure between FY 2005 and FY 2006 and were advised that it is due to a large number of SCADA and communications facilities being installed as part of other transmission works. We considered the costs to be reasonable for the size and nature of Western Power's network.

Information Technology

Western Power is proposing to spend an average of $7.2 m p.a. on IT-related opex over the period, compared to an average of $5.1 m over the previous three years. This represents an increase of 43%. Expenditure is forecast to rise from $6.6 m in the first year of the period to $7.8 m by the end of the period. Reasons given for the increased expenditure include additional opex costs associated with the additional systems outlined in the capex section, and increased employee numbers. We accept the proposed expenditure as reasonable.

Network Support

Western Power is proposing to spend an average of $35.9 m p.a. on network support over the period, compared to an average of $18.0 m over the previous three years. This represents an increase of 99%. Expenditure is forecast to rise from $31.6 m in the first year of the period to $40.6 m by the end of the period. The only supporting information provided in the access arrangement information was in section 5 of appendix 7. The totals shown in figure 10 of the access arrangement information and the figures separately provided to us in a spreadsheet by Western Power are significantly greater than the totals in section 5 of the appendix. We were advised during our discussions with Western Power that the numbers in the submission had increased due "to some late allocations from corporate". We requested further supporting

information for the difference but were provided only with a breakdown of the expenditure under the categories of disaggregation, market reform, and business as usual. We noted that increases were forecast in all three categories but that no further supporting information was provided to indicate the purpose of the increased expenditure or why such large increases were necessary.

In the absence of satisfactory supporting information for the large increase in expenditure, we are not able to endorse it. We propose that an adjustment be made to cap network support expenditure at the level forecast for FY 2006, plus an allowance for inflation. A calculation is given in section 6.5 below.

6.5 Reasonableness of Total Transmission Opex

The average annual operation and maintenance expenditure proposed over the period is $82.9 m. However, as noted in section 6.3, the Corporation has advised us that a reduction of $2.2 m p.a. should be made for costs that are to be funded by wholesale market participants. This reduces the average proposed expenditure to $80.7 m p.a.. The reduced level of $80.7 m equates to 3.1% of the replacement cost of the transmission assets.[60] It is a considerable increase on historical levels and is at or, possibly, above the upper bound of the range we would consider reasonable.

In spite of this proposed increase, we note that network maintenance expenditure is to be maintained at present levels and that the majority of the increase relates to indirect expenditures and associated services such as network operations, SCADA and communications. This does not correlate with the reasons quoted by the Corporation for expenditure increases.

We appreciate that the Corporation's business units are to become stand-alone entities in place of the present, integrated, structure and that there is no history of expenditure on which to base the projections in this cost category.

On balance, due to the overall high level of opex and the lack of supporting information for increases in network support costs, we recommend that a reduction be made in allowed opex of an amount to bring network support costs back to FY 2006 levels (inflation adjusted). The calculation of the proposed reduction is shown in Table 6.3.

Table 6.3: Calculation of Network Support Reduction ($ m)

YE 30 June	Forecast	Proposed		
	2006	2007	2008	2009
Original Network Support Proposed	28.3	31.6	35.5	40.6
Network Support Recommended	28.3	29.1	30.0	30.9
Network Support Adjustment	0.0	-2.5	-5.5	-9.7

The level of total opex recommended after adjustments is shown in Table 6.4

[60] The calculation of the asset base is discussed in footnote 56.

Table 6.4: Recommended Level of Transmission Opex ($ m)

YE 30 June	Forecast	Proposed		
	2006	2007	2008	2009
Opex Total Proposed by Western Power	**71.2**	**76.9**	**82.9**	**89.0**
Network Operation Adjustment	0.0	-2.1	-2.3	-2.3
Network Suppot Adjustment	0.0	-2.5	-5.5	-9.7
Recommended Transmission Opex Total	**71.2**	**72.3**	**75.1**	**77.0**

After these adjustments, the average recommended level of total opex for the period is $74.8 m still represents a 35% increase over the average level for the previous three years.

7 Distribution Capex

7.1 Proposed Expenditure

Western Power has proposed $701.4 m of capex on the distribution system over the period. Year-by-year historical and forecast expenditure is shown in Table 7.1.

Table 7.1: Historical and Proposed Distribution Capex ($ m)

YE 30 June	Actual			Forecast	Proposed		
	2003	2004	2005	2006	2007	2008	2009
Network - demand related							
Distribution capacity	17.3	18.1	22.5	33.3	30.2	34.0	40.3
Customer driven	67.8	84.6	103.7	84.5	84.5	84.5	84.5
Vested assets	9.0	13.8	16.2	17.2	19.6	21.9	24.3
	94.0	116.5	142.4	135.0	134.3	140.4	149.1
Network - non-demand related							
Asset replacement	8.2	4.0	11.0	10.3	10.3	10.0	19.0
Reliability driven	0.0	0.3	0.1	7.7	7.7	12.0	21.9
Safety, environmental and statutory	0.0	4.3	25.1	23.9	28.2	40.0	44.7
State Undergrounding Program (SUPP)	16.0	8.2	19.3	17.1	17.1	16.3	17.1
Rural Power Improvement Program (RPIP)	0.0	0.0	10.4	10.3	10.3	10.6	0.0
	24.2	16.8	65.9	69.2	73.5	88.9	102.7
Other							
SCADA and communications	4.5	2.5	2.2	2.1	2.1	1.8	1.9
IT including market reform	0.7	1.1	5.2	15.2	15.2	11.4	13.0
Metering	4.5	4.5	13.6	4.4	4.4	8.1	10.0
Support	1.2	1.3	5.4	3.2	3.2	3.5	3.8
	129.2	**142.6**	**234.6**	**229.2**	**232.7**	**254.0**	**280.5**

Source: Western Power AAI, table 17, p. 110.

The Corporation considers that there are six principal drivers of the need to increase the level of expenditure. These are:

- the impact of previous budget constraints;
- investment required to facilitate market reform;
- load growth and a review of design standards;
- a need to improve reliability;
- asset condition; and
- safety, environment and statutory compliance obligations.

The impact of these factors is discussed under the headings below or in the preceding general sections.

A comparison of average expenditures proposed over the period and those in the previous three years is presented in Table 7.2. It shows that average total distribution capex is proposed to be 52% higher over the period, compared to the previous three years.

Table 7.2: Comparison of Average Historical and Proposed Distribution Capex ($ m)

YE 30 June	Average Historical	Average Proposed	Increase (%)
Network - demand related			
Distribution capacity	19.3	34.8	81
Customer driven	85.3	84.5	(1)
Vested assets	13.0	21.9	69
	117.6	141.2	20
Network - non-demand related			
Asset replacement	7.8	13.1	69
Reliability driven	0.1	13.9	9,946
Safety, environmental and statutory	9.8	37.6	284
State Undergrounding Program (SUPP)	14.5	16.8	16
Rural Power Improvement Program (RPIP)	3.5	7.0	100
	35.6	88.4	148
Other			
SCADA and communications	3.1	1.9	(37)
IT including market reform	2.3	13.2	465
Metering	7.5	7.5	()
Support	2.6	3.5	36
	168.8	**255.8**	52

7.2 System Capacity Expenditure

Western Power is proposing to spend an average of $34.8 m p.a. increasing distribution system capacity over the period, compared to an average of $19.3m over the previous three years. This represents an increase of 81%. Expenditure is forecast to rise from $30.2 m in the first year of the period to $40.3 m in the third year.

This expenditure includes all demand-driven reinforcement of the HV and LV distribution systems. HV expenditure includes feeder reinforcement to cope with load growth, to achieve or maintain compliance with the planning criteria, and to accommodate new substation developments. LV expenditure includes distribution transformer and LV feeder upgrades.

The Corporation advised us that the proposed expenditure, and in particular its increased level, is required to: support increased customer connections in line with increased expenditure on customer connections; reduce network feeder utilisation levels; integrate 15 new zone substations; upgrade overloaded distribution transformers; and upgrade conductor that has insufficient fault rating for the prospective fault levels. [61]

Load growth has been driven from both new connections and increasing load from existing connections, principally due to a rapid increase in the number of residential properties with air conditioners. The Corporation stated that network capacity augmentation has not kept up with growth over the last decade due to capex restrictions, resulting in high HV feeder utilisation with 28% of feeders loaded above the Corporation's planning limit of 80% of normal rating. Load increases are also said to have resulted in distribution transformer failures and there is evidence of overloading of LV circuits.

[61] The Corporation advised us that there is a significant amount of small under-rated conductor with a high concentration in outer metropolitan areas.

Fifteen new zone substations are planned on the transmission network before the end of the period. For each new zone substation, three to four new HV feeders need to be constructed. Installation of feeder exit cables, upgrading of under-rated overhead networks, the addition of switchgear and the reconfiguration of existing feeders are also required.

A programme has commenced to replace overloaded distribution transformers and this will continued through the period. It is also proposed to upgrade a large number of LV feeders in both the residential and commercial areas over the period.

We reviewed the distribution network planning standards as outlined in section 2.4 of the *Transmission and distribution annual planning report* and the *Draft technical rules*. We found the planning standards used for CBD, metropolitan, semi-rural and rural areas to be reasonable and generally in accordance with industry practice.

We were provided with a list of projects tentatively proposed for the period and found their nature to be generally consistent with the general description of projects in the access arrangement information.

We noted that the proposed annual expenditure of $34 m represents around 0.8% of the replacement cost of the distribution asset base. Noting that the distribution network is under considerable stress at present due to the factors already mentioned, we considered the proposed expenditure to be at a reasonable level for the period. [62]

7.3 Customer Driven Expenditure

Western Power is proposing to spend $84.5 m p.a. on customer-driven capex. In addition, the Corporation is expecting to acquire an average of $21.9 m p.a. of vested assets.

Our view is that when assessing customer-related expenditure levels, vested assets should be treated no differently from other customer-driven capex and should be considered to be part of the total expenditure level of the Corporation under this heading, the vesting being only a different form of capital contribution. Therefore, in our assessment, the total customer-driven capex averages $106.4 m p.a. during the period, compared to $98.3 m p.a. over the previous three years. This represents an increase of 8.2%.

Historical and forecast customer numbers are shown in Table 7.3 together with an indication of total capex and capex per customer. The analysis shows that the average cost per customer rose significantly over the three years to 2003/04 but is projected to fall from the 2004/05 level of $4,529 per connection to $3,652 in 2008/09. This suggests that either the 2003/04 level was unusually high or the expenditure forecasts for the access period are based on historical information rather than the most recent cost of new connections.

[62] The replacement cost of distribution assets of $3,442 m at 30 June 2004, reported on p. 48 of PwC's valuation report, plus the adjustments reported on the same page, was used as a basis for the denominator in this calculation. Escalation was applied at the rate used in table 21 on p. 120 of the access arrangement information. Gross capital expenditure, including vested assets, was added and disposals were allowed for at 1.5% p.a. to give an estimated replacement cost as at 30 June 2006 of $4,142 m.

Table 7.3: New Customer Connections

YE 30 June	Actual			Forecast	Proposed		
	2003	2004	2005	2006	2007	2008	2009
New Connections	23,173	24,094	26,453	24,985	26,972	28,429	29,793
New Connection Capex $ m (inc Vested Assets)	76.8	98.4	119.8	101.7	104.1	106.4	108.8
Cost per connection ($)	3,314	4,084	4,529	4,070	3,860	3,743	3,652

Source: Western Power (as amended, November 2005).

Overall, we considered the average cost per connection to be reasonable, given that most new connections were occurring on newly developed sites. However, we were advised by the Corporation that the expenditure forecasts are based on a continuation of present subdivision design standards despite appendix 7 of the access arrangement information mentioning proposed changes that will result in increased costs. [63] The changes referred to, and Western Power's estimated direct capital expenditure impacts, are shown in Table 7.4. (As mentioned earlier, there may be other accompanying costs arising in the network as well.)

Table 7.4: Estimated Cost of Proposed Design Changes

Proposed Change	Cost Effect ($ m p.a.)
EPA requirement for low ambient noise near residences	0.8 (non-subdivision work only)
Increased residential ADMDs	19.1
Increased industrial/commercial ADMDs	5.2
Increased street lighting level	1.8
Increased cost of work approvals	4.8
Fire proof construction	2.3
Substitution of Jarrah poles which are running out	3.7
Reduced number of customers on spur feeders	5.4

Source: Western Power.

We draw the Authority's attention to the projected cost of these changes, should the technical rules committee endorse them as suitable.

7.4 Asset Replacement Expenditure

Western Power is proposing to spend an average of $13.1 m p.a. on asset replacement over the period, compared to an average of $7.8 m over the previous three years. This represents an increase of 69%. Expenditure is forecast to increase from $10.3 m in the first year of the period to $19.0 m in the third year.

In support of the proposed replacement expenditure, the Corporation has stated that it engaged PB Associates to develop an age, condition and risk-based replacement expenditure

[63] We were also advised that the *Draft technical rules* incorporate the proposed changes but, as already discussed in section 4.6, we could not identify them in the rules.

model. This model was populated with the Corporation's distribution asset data and incorporated a stated backlog of assets identified for replacement in the 'MIMS' database. [64]

The Corporation also stated that the model had predicted expenditures over the period of approximately $145 million and that this level of expenditure would be accompanied by a decline in the weighted average remaining life of the assets from 54% to 52% over the period. [65]

The Corporation has proposed replacement expenditure of $39.3 m for the period or an average of $13.1 m p.a., 27% of that predicted by the PB Associates model. This level of expenditure corresponds to an annual rate of 0.3% of the replacement cost of distribution network asset base but replacements will also arise under other expenditure categories such as safety compliance and reliability expenditure, in addition to which the cost of replacing 'run to failure' assets is expensed.

Overall, therefore, we were satisfied with this level of replacement expenditure for the period but wish to draw to the Authority's attention to the fact that this level will be insufficient in the medium- to longer-term to sustain the asset base.

(In passing, we noted that Western Power has embarked on programmes to improve the monitoring and recording of asset conditions and this will allow improved more asset-specific expenditure forecasting in the future.)

7.5 Reliability Improvement Expenditure

Western Power is proposing to spend an average of $13.9 m p.a. on capex to improve the reliability of supply over the period, compared to an average of $0.1 m over the previous three years. Expenditure is forecast from $7.7 m in the first year of the period to $21.9 m in the third year.

We noted that this is effectively a new expenditure category, specifically targeting reliability and that the Corporation has committed to improvements in SAIDI performance for urban and rural customers in the SWIS by the end of the period. The service standard benchmarks for the distribution network for each year of the access arrangement are shown in Table 7.5.

Table 7.5: Proposed Distribution Network SAIDI Benchmarks (minutes p.a.)

	YE June 2007	YE June 2008	YE June 2009
SWIS total	277	259	224
Urban sub-network	242	226	195
Rural sub-network	509	476	410

Source: access arrangement information, p. 5.

We noted that the SAIDI benchmarks have been set based on a recent history of poor and deteriorating reliability levels. In our opinion, the benchmark levels that have been set do not represent good industry practice levels and lower SAIDI levels should be achievable with properly targeted and prioritised actions.

As in the rest of the country, projects are to include distribution automation and remedial work on the worst-performing feeders.

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64 The model also calculated the weighted average remaining life of the assets to be 55% in 2005.

65 See appendix 7 of the access arrangement information, p. 102.

7.6 Safety, Environmental and Statutory Expenditure

Western Power is proposing to spend an average of $37.6 m p.a. on safety, environmental and statutory capex over the period, compared to an average of $9.8 m over the previous three years. This represents an increase of 284%. Expenditure is forecast to rise from $28.2 m in the first year of the period to $44.7 m in the third year.

The increased expenditure is said to be necessary for the Corporation to comply with directives and remedial actions agreed with the Energy Safety Directorate (ESD), the Electricity (Supply Standards and System Safety) Regulations 2001 and its other obligations.

We were advised that all projects included in this category relate to the achievement of mandated safety, environmental, and compliance obligations or accepted good practice employed to manage risk prudently. [66]

Subject to the fact that we were not provided with information on the unit costs of construction, other than through the valuation report, we considered the proposed level of expenditure to be reasonable.

7.7 Other Expenditure

State-Assisted Programmes (SUPP and RPIP)

Western Power is proposing to spend an average of $23.8 m p.a. on two State-assisted programmes over the period. The programmes are the State Underground Power Program (SUPP) and the Rural Power Improvement Program (RPIP).

SUPP is a governmental initiative to underground 50% of the Perth metropolitan area with a corresponding increase in regional areas by the year 2010. Funding is 25% by Western Power, 25% by the Government and 50% by the Local Government Authority (LGA). An average of $16.8 m p.a. has been proposed for the period. We accepted the expenditure as reasonable but noted that the full expenditure has been allowed for in the Corporation's estimates with the contributions from the other parties included in capital contributions.

RPIP is a targeted 4-year $48 m capital expenditure programme with the objective of enhancing power supplies in rural areas. The programme commenced in FY 2005 and is scheduled for completion in FY 2008. Expenditures of $10.3 m and $10.6 m have been proposed for the first two years of the period to complete the four-year programme. The nature of this expenditure appears to be reliability and capacity improvement that would normally have a lower priority due to the small number of customers affected or that would be uneconomic. We were advised that the full expenditure is included in the Corporation's proposed expenditure but that Government is to contribute 50% by way of accepting a lower dividend. [67]

We considered the proposed level of expenditure to be reasonable for the work undertaken but do not express any opinion on the technical or economic merit of the programmes.

Metering

Western Power is proposing to spend an average of $7.5 m p.a. on metering capex over the period, compared to an average of $7.5 m over the previous three years. While the forecast

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[66] Projects include the rectification of systemic faults in network components. The faults have arisen from poor design, inadequate maintenance or deterioration due to age. There are many thousands of installations in each category and it will be a major undertaking to inspect and, where necessary, repair or replace these items. The work will take several years and will need to be prioritised.

[67] The Authority might note that unless adjusted for, this implies that the Corporation would receive a return on the full expenditure in its regulated revenue.

and historical levels are similar, the historical average was boosted by a large level of expenditure in FY 2005. We were advised by the Corporation that this increase in FY 2005 was caused by "a review of work in progress status on numerous projects and activities, not to be repeated in future years". We have therefore made our assessment on the basis that the base level of metering capex is $4.5 m p.a.

Expenditure is forecast to rise from $4.4 m in the first year of the period to $10.0 m in the third year. The increase in expenditure in the second and third years of the period arises from the introduction of a programme to replace 101,000 single-phase meters that do not meet the required accuracy class. The delay in commencing this programme has apparently been due to the constraints that Western Power has applied to its capital programme.

We have reviewed the unit costs associated with the metering expenditure and the overall metering programme and are satisfied that the expenditure proposed is reasonable.

SCADA

Western Power is proposing to spend an average of $1.9 m p.a. on SCADA and communications capex over the period. We have reviewed the SCADA and Communications Strategic Plan and the major projects proposed over the period and consider that the expenditure is justified and is reasonable.

Information Technology

Western Power is proposing to spend an average of $13.2 m p.a. on IT capex over the period. Major 'business as usual' projects include the replacement of the GIS system, a new workforce management system and a new customer information system suitable for retail competition. In addition, a number of reform projects are proposed, including a compliance reporting system, a separate network customer information system and a separate business system to meet the requirements of separation and ring-fencing.

Our assessment is that Western Power needs to improve its information systems and its database for network planning and management purpose and that it will also need to develop new systems for business separation. We conclude that the proposed expenditure is reasonable.

Network Support

Western Power is proposing to spend an average of $3.5 m p.a. on network support capex over the period, compared to an average of $2.6 m over the previous three years. This represents an increase of 36%. The expenditure relates to the purchase of tools and equipment and the direct management of capital works. We considered the expenditure proposed to be reasonable in the context of the increased overall level of capital expenditure compared to the historical level.

7.8 Reasonableness of Total Distribution Capex

The average annual distribution capital expenditure over the period of $255.8 m equates to around 6.2% of the replacement cost of the distribution network asset base. [68] This level is at the high end of the range that we would consider reasonable for a distribution business experiencing load growth of 3.3% p.a. and represents a significant increase on historical expenditure levels.

[68] The calculation of the asset base is discussed in footnote 62.

There are, however, a number of valid reasons for accepting this level of expenditure during the period including, particularly, the current high levels of feeder utilisation, the desirability of improving the present poor levels of distribution network reliability, and the desirability of rectifying latent safety risks.

Overall, therefore, we consider the level of total distribution capex to be acceptable but for reasons we explain later in this report, we believe that it ought to be accompanied by more challenging network reliability improvement targets.

8 Distribution Opex

8.1 Proposed Expenditure

Western Power has proposed $484.8 m of opex on its distribution system over the period. Year-by-year historical and forecast expenditure is shown in Table 8.1.

Table 8.1: Historical and Proposed Distribution Opex ($ m)

YE 30 June	Actual			Forecast	Proposed		
	2003	2004	2005	2006	2007	2008	2009
Maintenance Strategy	3.0	3.6	3.8	5.8	6.3	6.3	6.4
Preventative Condition	8.6	8.9	16.3	18.4	13.5	13.8	14.3
Preventative Routine	8.9	9.3	26.6	23.8	23.3	23.9	24.8
Corrective Deferred	13.2	13.3	15.8	15.1	11.9	11.1	10.9
Corrective Emergency	30.6	27.0	30.0	27.5	22.4	21.0	20.5
Maintenance (Total)	64.3	62.1	92.5	90.5	77.3	76.0	76.8
Reliability	0.0	0.0	0.0	3.7	4.5	4.5	4.5
SCADA & Communications	0.0	0.0	0.5	0.8	0.9	0.9	0.9
Network Operations	3.9	5.2	7.4	7.2	8.5	8.8	9.2
IT&T	8.8	8.0	8.2	10.5	11.2	12.8	15.1
Metering	8.8	9.2	9.3	11.7	14.4	14.4	15.9
Call Centre	4.5	4.7	5.0	5.7	6.6	6.9	7.2
Network Support	22.2	26.2	26.6	25.1	33.0	37.4	37.3
Distribution Total	**112.5**	**115.4**	**149.5**	**155.2**	**156.2**	**161.6**	**166.9**

Source: Western Power.

Proposed opex for the period is at similar levels in real terms to the expenditure in FY 2004 and that proposed for FY 2005. However, there was a significant increase in opex in FY 2005 from the previous two years.

The Corporation identified the principal drivers of the additional expenditure as:

- the impact of previous budget constraints;
- compliance with health, safety and environmental obligations;
- specific programmes to meet reliability targets;
- programmes to extend the life of assets;
- growth in network assets base;
- increasing labour and material costs;
- increased metering costs from larger customer base and increased demands for interval meters;
- call centre costs for faults handling not previously charged to the network business;
- additional requirements from new regulatory and market environment; and
- increased insurance costs.

The impact of these factors is discussed under the headings below or in the preceding general sections.

A comparison of average expenditures proposed over the period and average expenditures during the previous three years is presented in Table 8.2 and shows that average total distribution opex will be 28% higher over the period compared to the previous three years, although as just noted, there was a step change from FY 2004 to FY 2005.

Table 8.2: Comparison of Average Historical and Proposed Distribution Opex ($ m)

YE 30 June	Average Historical	Average Proposed	Increase (%)
Maintenance Strategy	3.4	6.3	84
Preventative Condition	11.3	13.9	23
Preventative Routine	14.9	24.0	60
Corrective Deferred	14.1	11.3	-20
Corrective Emergency	29.2	21.3	-27.1
Maintenance (Total)	73.0	76.7	5
Reliability	0.0	4.5	n/a
SCADA & Communications	0.2	0.9	463
Network Operations	5.5	8.8	60
IT&T	8.3	13.0	56
Metering	9.1	14.9	64
Call Centre	4.7	6.9	46
Network Support	25.0	35.9	44
Distribution Total	**125.8**	**161.6**	28

As with transmission opex, Western Power has sought to minimise the required increase in expenditure and has undertaken to deliver opex efficiency gains – see section 6.1.

8.2 Maintenance and Reliability Expenditure

Western Power is proposing to spend an average of $76.7 m p.a. on maintenance over the period, compared to an average of $73.0 m over the previous three years. This represents an increase of 5%.

The proposed increase is modest, given that many of the drivers of increased expenditure outlined by the Corporation relate to maintenance. The proposed maintenance expenditure for each year in the period is in fact a reduction of approximately 15% on the levels spent in FY 2004 and forecast for FY 2005. Reductions are expected in corrective maintenance and preventive routine maintenance over the review period.

We noted that past maintenance expenditures have had a much higher corrective component than is desirable. The Corporation has attributed this to budgetary constraints but we consider that poor monitoring and maintenance strategies are likely to have been a contributing factor.

As already mentioned, the Corporation is now implementing improved strategies to monitor asset condition and improve its preventive programmes and this good network management practice should allow it to reduce corrective maintenance as a proportion of total maintenance

and to achieve network reliability improvements. This is another area in which we believe that efforts to reach those goals should be accelerated.

We noted that reliability opex was listed as a separate category from maintenance. We appreciate the desire to emphasise this item but consider that the type of expenditure planned under the reliability heading during the period is essentially preventive maintenance and should be included under the maintenance heading. [69]

The proposed average annual maintenance expenditure over the period, including the expenditure proposed for reliability improvements, equates to around 1.9% of the replacement cost of distribution asset base [70] and is considered reasonable for the period.

8.3 Network Operations Expenditure

Network operations expenditure is the distribution-related share of the costs of the Systems Operations Group which provides control, switching, operations planning and monitoring for both the transmission and distribution networks.

Western Power is proposing to spend an average of $8.8 m p.a. on network operations over the period, compared to an average of $5.5 m over the previous three years. This represents an increase of 60%. Expenditure has been rising steadily since FY 2003 when it was $3.9 m.

The supporting information in appendix 7 of the access arrangement information in respect of these costs is inconsistent with the reported actual expenditure. [71] An explanation was sought and Western Power provided an updated 'Figure 108' and new wording for a paragraph on p. 136 of appendix 7. The changed wording contradicted the earlier reason for the proposed increase in expenditure.

We remained of the view that we had not been provided with sufficient supporting information to assess the reasonableness of the increased expenditure in this item. We therefore propose that a reasonable level of expenditure be taken to be the level forecast for FY 2006 plus an allowance for inflation. A calculation of the figure is given in section 8.6.

8.4 Metering Expenditure

Western Power is proposing to spend an average of $14.9 m p.a. on metering opex over the period, compared to an average of $9.1 m over the previous three years. This represents an increase of 64%. Expenditure is forecast to rise from $14.4 m in the first year of the period to $15.9 m by the end of the period.

Expenditure under this category covers: meter reading; data management (which involves processing of metering data for settlement and customer billing); meter provision (including the maintenance of high voltage meter installations and related laboratory activities); and inspection services (which include installation inspections, contractor auditing and the investigation of breaches).

We were advised that approximately 50% of meter reading was contracted out with the balance undertaken in-house. We were also advised that meter reading costs were benchmarked every two years and that the benchmarking showed Western Power to be one of the better performers.

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[69] The amount provided for reliability opex is $4.5 m p.a. over the review period and is associated mostly with the worst-performing feeder improvement programme.

[70] The calculation of the asset base is discussed in footnote 62.

[71] Actual expenditure rose by 42% in FY 2005 but it is stated in appendix 7 that expenditure will remain steady until FY 2006, when an increase in staff numbers will be required for various reasons.

Additional expenditure of $4.4m has been included in this category for surveys of network connection points. [72]

The cost of inspection services is expected to increase in line with the rate of new connections.

The Corporation has also allowed for some increased costs associated with market reforms and we considered these to be reasonable.

We noted an inconsistency between the total proposed metering expenditure and the sum of the four categories making up the proposed expenditure but did not consider the difference material.

We assessed the total expenditure for this category on a cost per customer basis and considered it reasonable. We also considered the proposed increases, after taking into account the extra survey work and the expected increase in connections, to be reasonable.

8.5 Other Expenditure

Call Centre

Western Power is proposing to spend an average of $6.9 m p.a. on call centre costs over the period, compared to an average of $4.7 m over the previous three years. The Corporation states in appendix 7 of its access arrangement information that it has not had to bear the costs of the retail business unit taking fault calls to date but it will have to in future.

We noted an inconsistency between the historical information provided to us, as shown in table 8.1 and figure 17 of the access arrangement information and figure 113 of appendix 7 which shows little historical expenditure. However, we did not consider that to be material in assessing the proposed level of future expenditure under this category as we assessed it on a cost-per-customer basis and considered it to be reasonable.

SCADA and Communications

Western Power is proposing to spend an average of $0.9 m p.a. on SCADA and communications opex over the period, compared to an average of $0.2 m over the previous three years. We were advised that distribution expenditure under this category was combined with transmission until 2003/04 but with the implementation of the new SCADA distribution master station these costs were separated in 2004/05. This explains the increase in costs for the period. We considered the costs to be reasonable for the size and nature of Western power's network.

IT Expenditure

Western Power is proposing to spend an average of $13.0 m p.a. on IT opex over the period, compared to an average of $8.3 m over the previous three years. This represents an increase of 56%. Expenditure is forecast to rise from $11.2 m in the first year of the period to $15.1 m by the end of the period.

The reasons cited for the increased expenditure included: additional opex costs associated with the additional systems outlined in the capex section of this report, increased employee numbers and the conversion of manual systems to electronic systems. We were also advised that prior to FY 2004, the Corporation did not have processes in place to fully capture IT expenditure and it is considered that its historical expenditure under this heading was higher

[72] This is related to the identified safety issue with respect to 'Twisty' connections.

than that shown for FY 2004 and FY 2005. We have accepted the explanations and the proposed expenditure as reasonable.

Network Support

Western Power is proposing to spend an average of $35.9 m p.a. on network support over the period, compared to an average of $25.0 m over the previous three years. This represents an increase of 44%. Expenditure is forecast to rise from $33.0 m in the first year of the period to $37.4 m by the end of the period.

Approximately 30% of distribution network support costs for the period relate to insurance costs. Insurance premiums have risen significantly over the last two years and the Corporation has projected that these will continue to rise. We noted that these projections were based on an allocation of present group insurance costs and the Corporation has yet to get insurance quotes for the stand-alone network business.

The only supporting information provided in the access arrangement information was in section 5 of appendix 7. The totals shown in figure 17 of the access arrangement information and the figures separately provided to us in a spreadsheet by Western Power are significantly greater than the totals in section 5 of the appendix. We were advised during our discussions with Western Power that the numbers in the submission had increased due "to some late allocations from corporate". We requested further supporting information for the difference but were provided only with a breakdown of the expenditure under the categories of disaggregation, market reform, and business as usual. We noted that increases were forecast in all three categories but that no further supporting information was provided to indicate the purpose of the increased expenditure or why such large increases were necessary.

In the absence of satisfactory supporting information for the large increase in expenditure, we are not able to endorse it. As with transmission network support, we propose that an adjustment be made to cap network support expenditure at the level forecast for FY 2006, plus an allowance for inflation. A calculation is given in section 8.6 below.

8.6 Reasonableness of Total Distribution Opex

The average annual operation and maintenance expenditure over the period of $161.6 m equates to a level of 3.9% of the replacement cost of the distribution assets or around $200 per customer. This level is at the high end of the range of what we would expect for a distribution business with the characteristics of Western Power, a business with a mix or urban and rural loads and without any sub-transmission network.

As outlined above we reviewed individual expenditure categories and accepted that for the direct network maintenance and operating costs there are valid reasons for the expenditure. These include a failure to complete sufficient preventive maintenance in previous years leading to a backlog and past budget constraints on capital expenditure that have resulted in higher levels of asset failure due to age or overloading. We have concerns over the increases that have been proposed for indirect costs, particularly for network operations and network support costs for which insufficient supporting information was provided.

We appreciate that the Corporation's business units are to become stand-alone entities in place of the present, integrated, structure and that there is no history of expenditure on which to base the projections in this cost category. However, on balance, due to the overall high level of opex and the lack of supporting information for increases in network operations and network support costs, we recommend that reductions be made to bring these two items back

to forecast FY 2006 levels (inflation adjusted[73]). The calculation of the proposed reduction is shown in Table 8.3.

Table 8.3: Proposed Reductions ($ m)

YE 30 June	Forecast	Proposed		
	2006	2007	2008	2009
Original Network Operations Proposed	7.2	8.5	8.8	9.2
Network Operations Recommended	7.2	7.4	7.6	7.8
Network Operations Adjustment	0.0	-1.1	-1.2	-1.4
Original Network Support Proposed	25.1	33.0	37.4	37.3
Network Support Recommended	25.1	25.9	26.6	27.4
Network Support Adjustment	0.0	-7.1	-10.7	-9.8

The level of total opex recommended after adjustments is shown in Table 8.4

Table 8.4: Recommended Level of Distribution Opex ($ m)

YE 30 June	Forecast	Proposed		
	2006	2007	2008	2009
Opex Total Proposed by Western Power	**155.2**	**156.2**	**161.6**	**166.9**
Network Operation Adjustment	0.0	-1.1	-1.2	-1.4
Network Suppot Adjustment	0.0	-7.1	-10.7	-9.8
Recommended Distribution Opex Total	**155.2**	**148.0**	**149.7**	**155.7**

After these adjustments, the average recommended level of total opex for the period is $151.1 m still represents a 20% increase over the average level for the previous three years.

[73] An inflation adjustment of 3% p.a. has been allowed.

9 Comparison with Other Network Businesses

9.1 Studies Commissioned by Western Power

The terms of reference called for a comparison of Western Power's opex and capex forecasts and historical averages against data for similar network businesses elsewhere. This was to be undertaken for both transmission and distribution expenditures. However, for the reasons given near the end of section 2.6 (see pp. 11-12), we have restricted our comparison to distribution opex (although we do report some findings of other studies in relation to transmission opex).

In preparing this analysis, we first had regard to the benchmarking studies commissioned by Western Power and reported in section 5 of part A of the access arrangement information, p. 36, and discussed further in appendix 7 of the access arrangement information (pp. 10-23). Three studies are discussed, one by Meyrick & Associates, [74] another by Benchmark Economics [75] and a third by PB Associates. [76] The Corporation presents a summary of these studies in appendix 7 and concludes by saying (access arrangement information, p. 36): *"Contrary to [the expectation that its vast service area, physical environment and relative isolation might lead to its recent cost performance being compared unfavourably with other network businesses in Australia, the] recent studies undertaken by Meyrick & Associates and Benchmark Economics have all identified Western Power's network business as a better-than-average cost performer"*.

Meyrick & Associates

The Meyrick study reviewed Western Power's distribution business performance over the period 1999 to 2003 against twelve other identified Australian distribution businesses whose performance data are kept confidential. (We know the identities of the participants in the survey but individual performance measures are not identified.) Performance measures examined included: financial performance; network charges; reliability performance; complaints; total and partial productivity indexes; labour productivity; operating expenditure efficiency; capital stock efficiency; and capital expenditure efficiency.

The usual difficulties were reported in compiling data including differing network configurations and differing expenditure accounting practices. Quite different rural-to-urban ratios were noted and an effort was made to 'normalise' the expenditures.

The study stated in respect of network reliability that: *"Western Power's SAIDI more than doubled from 131 minutes in 2002 to 288 minutes in 2003 to give it a rank of eleventh on this measure. In 2002 Western Power ranked fifth on SAIDI."* (We noted that performance further declined in 2004 and 2005: see p. 37 of the access arrangement information.)

In terms of total factor productivity, Western Power ranked fifth. In terms of opex partial productivity it ranked second best showing improvement over the five-year period and it had the 'ninth highest' capital partial productivity of the thirteen businesses. In terms of opex

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[74] *'Benchmarking Western Power's electricity distribution operations and maintenance and capital expenditure'*, Meyrick & Associates, February 2005.

[75] *'Western Power network cost analysis and efficiency indicators'*, Benchmark Economics, July 2005.

[76] Discussed in appendix 7 of the access arrangement information, pp.10-23. A separate report was not presented.

efficiency, it ranked fifth on opex per MWh, third lowest per network kilometre and third per customer.

In terms of asset replacement cost as a measure of the efficiency of use of capital stock, it ranked seventh out of twelve in terms of cost per kWh, fourth per network kilometre and sixth per customer. [77]

Further details of the study are presented in appendices 1 and 7 to the access arrangement information.

The general impression given was that the company was performing reasonably well relative to the sample but low prices and a high return on assets suggest to us that it may have been consistently under-spending on opex, capex or both.

We noted that the study relates to a prior period and that the Corporation's expenditure levels have since changed markedly.

Benchmark Economics

Benchmark Economics' study covered the 'current' period FY 2005 and the following five-year period FY 2006-10. The business is compared against twelve other companies and three aggregated states and the transmission business is compared to other state networks. [78]

The usual difficulties were reported in compiling data, including Western Power's inclusion of its sub-transmission assets in its transmission business, differing network characteristics, differing treatments of capital contributions and, importantly, changes in capital budgets associated with regulatory determinations or periods.

Based on FY 2005 data, the distribution business was identified as one of the lowest-cost businesses in Australia with expenditure levels that are *"well within the expected range set by comparable networks"*. [79]

(The transmission business's FY 2005 opex was considered to be at acceptable levels when measured against the other businesses; and the transmission business's FY 2005 capex was considered to be in line with its peers. Capex in subsequent years was commented on but the comments were not considered by us for reasons we discussed in section 2.6.)

The general impression given was that the company was performing at a comparable level to the other businesses in the sample.

We considered Benchmark Economics' study to be more relevant than Meyrick's because it was more recent and generally followed a methodology that we thought suitable for the purpose. We noted, however, that it was concluded in June 2005 but that, during the period April to August 2005, the Corporation had reduced its projected capital expenditures substantially. We were not able to verify that the expenditures studied by Benchmark Economics were those included in the access arrangement information. Additionally, the second period covered by the study (FY 2006-2010) is not the period of the access arrangement.

For these reasons, we carried out our own analysis using the data in the Corporation's access arrangement information, adopting similar methods to Benchmark Economics but supplementing the analysis with an additional test. We present the results in the following section of the report.

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[77] All items are quoted from Meyrick's executive summary.

[78] The study aggregated data for Victoria, New South Wales and Queensland to give a more relevant comparison with Western Power's state-wide activities. We consider that the inclusion of these aggregated totals along with all the individual company data was double-counting and may have affected the presentation of the graphs and thus the analysis.

[79] It was the lowest-cost network excluding sub-transmission assets and the third lowest including them.

PB Associates

The analysis attributed to PB Associates and detailed in appendix 7 of the access arrangement information suggests that Western Power's expenditures are low in comparison with its peers. However, it was not clear which period had been examined. Also, low ratios might imply inadequate expenditure as much as efficiency and it was not clear which was to be inferred from PB Associates' analysis.

9.2 Our Analysis of Distribution Opex

For the reasons just explained, we made our own comparison of Western Power's distribution opex with that of other companies, both excluding its sub-transmission assets (WP) and including them (WPST). The WPST point is highlighted in the figures below because it is considered more comparable with the other businesses. The businesses considered in the analysis were: AGL Electricity (AGL), CitiPower (CP), Powercor Australia (PC), SP AusNet (SPA), United Energy (UE) from Victoria; Energy Australia (EA), Integral Energy (IE) and Country Energy (CE) from New South Wales; and the New Zealand (NZ) distributors as a whole. [80]

As far as possible, FY 2006 projections were used; and all Australian data were converted to 2005-06 dollars using the Australian consumer price index. [81]

We noted, of course, that the distributors vary significantly in scale and nature – Western Power has the third lowest customer density of the sample and the fourth lowest average customer consumption – and thus the analysis needs to be treated with the usual measure of caution, as emphasised in section 2.6 of our report.

Analysis v. Customer Density

The following figures show opex per unit of network investment, line km and customer numbers against customer density, adopting a similar presentation to Benchmark Economics' report but using data in the Corporation's access arrangement information and the latest data available from other sources.

Figure 9.1 shows that Western Power's opex is at the high end of the range but has costs per unit of network investment on the best-fit line. Likewise in the case of figure 9.2, cost per km. In figure 9.3, cost per customer, Western Power's expenditure is below the best-fit line. Western Power's position excluding sub-transmission (the WP points in the figures) differs slightly in most cases.

All three figures reflect the differences between rural and urban businesses.

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[80] The depreciated replacement cost of the sub-transmission assets ($605 m) was taken from Benchmark Economics' report and a replacement cost value was estimated using pro rata from the SWIS transmission assets. Annual expenditures on the sub-transmission assets were also estimated pro rate from the total SWIS transmission asset costs.

[81] A 10-year historical average was used for future years. Roll-forward of the replacement cost valuations incorporated the historical average CPI escalation rate, gross capex and an indicative disposal rate of 1.5%. All sample company expenditures are net of metering.

Figure 9.1: Opex per Unit of Network Investment (%)

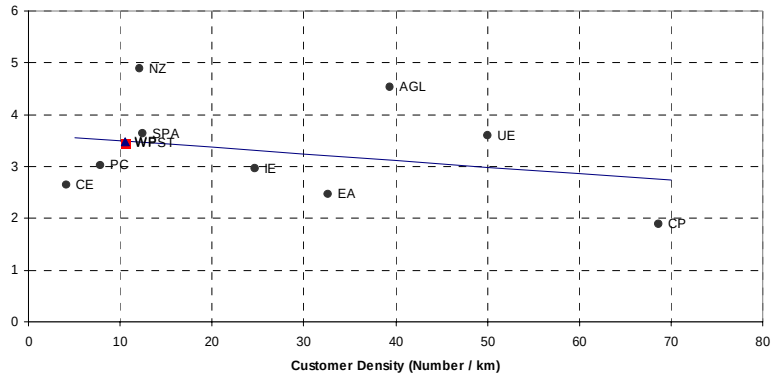


Figure 9.2: Opex per Line km ($)

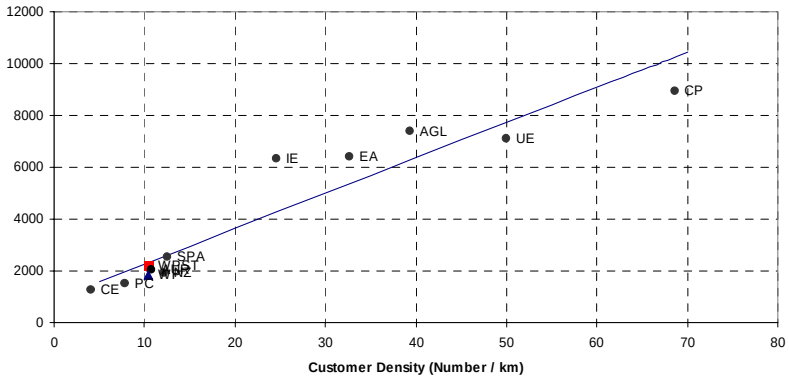
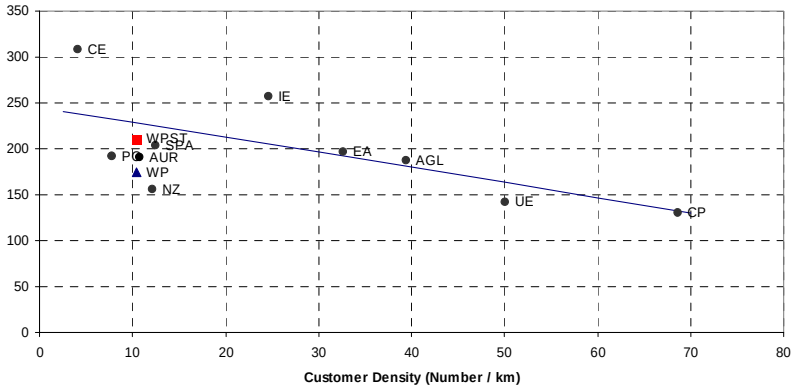


Figure 9.3: Opex per Customer ($)



9.3 Trade-Off between Reliability and Opex

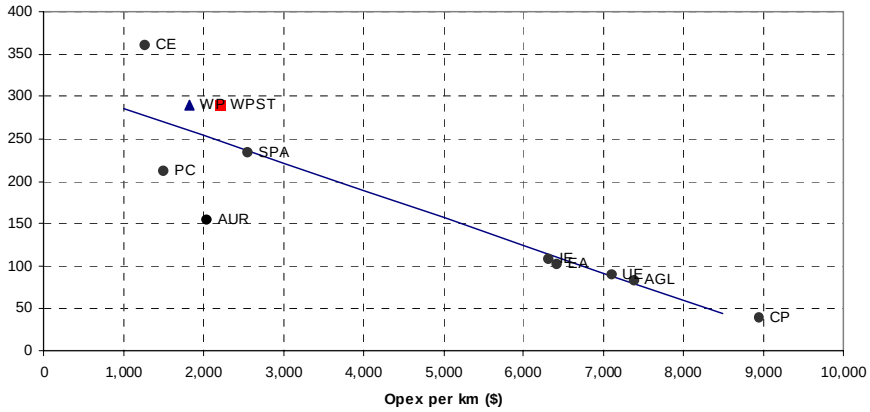
The following supplementary figures examine the trade-off between reliability, measured by SAIDI, and opex, measured per km of line length, for the businesses. [82] The best-performing businesses achieve better-than-average reliability with lower-than-average cost.

The first figure shows that Western Power is amongst the worst-performing in terms of reliability but amongst the lowest in terms of cost.

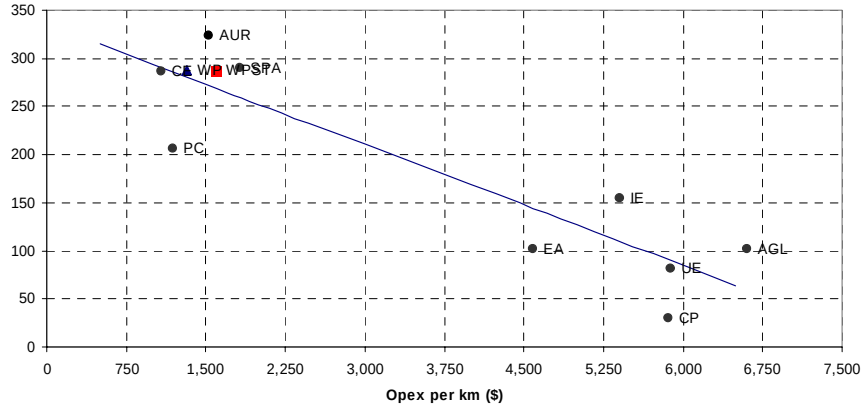
The second figure shows the same information for 2003, the year for which Western Power's reliability data appeared to be most representative of the last five years. Western Power is similarly positioned, although a comparison of the two figures highlights large movements in the positions of some businesses.

Again, in both cases, the figures reflect the differences between rural and urban businesses.

SAIDI v. Opex / km (2006)



SAIDI v. Opex / km (2003)



82 Sources: NSW DNSPs: *'NSW electricity distribution pricing 2004/05 to 2008/09: final report'*, IPART Report No OP-23, Sydney, June 2004; Victorian DNSPs: 2006-10 price service proposal submission templates (template 17, long-term reliability), *'Electricity Distribution Businesses - Comparative Performance Report for the Calendar Year 2003'*, Essential Services Commission, 2004; Western Power: *'Access Arrangement Information for the South West Interconnected System owned by Western Power Corporation, Submission to the Economic Regulation Authority'*, Western Power, 2005, *'Benchmarking Western Power's electricity distribution operations and maintenance and capital expenditure'*, Meyrick & Associates, February 2005.; Aurora Energy: *'2004 Reliability Review Final Report'*, OTTER, 2005.

9.4 Conclusion

In forming our final opinion, we had regard to the other expert opinions summarised in this section of the report, noting that they suggested that Western Power's operating and maintenance expenditures were reasonable. However, we also noted that Meyrick & Associate's analysis was of a prior period (2003) and that we were not able to verify that the expenditures studied by Benchmark Economics were those included in Western Power's access arrangement information. Additionally, the second period covered by Benchmark Economics' study (FY 2006-2010) is not the period of the access arrangement.

We had regard to the fact that Western Power has increased its opex significantly since 2003 and that it proposes to make further significant increases during the access arrangement period, the reasons for some of which were not explained to our satisfaction. We further had regard to the fact that Western Power's network exhibits poor reliability at the distribution level.

We concluded that other expert opinions expressed in this section ought not to cause us to alter the opinions reached in our own detailed assessments of the proposed expenditures.

10 Conclusions and Recommendations

10.1 Summary of Main Conclusions

In summary, the main conclusions arising from the review are these.

(a) Having considered as described in section 3 of this report the valuation methodology used, the robustness of the data available, the estimates and assumptions made, the asset registers and depreciation schedules, the valuer's assessment of the level of accuracy and the adjustments needed to derive a valuation at 30 June 2006, our opinion is that the estimated valuation at 30 June, 2006 (*viz:* $1,369 m for transmission plus $1,482 m for distribution) has been prepared in accordance with the ODV methodology, is thus consistent with the requirements of section 6.46 of the Code and may be accepted as reasonable and appropriate for the intended purpose.

(b) As noted in section 3.6, however, we did not consider ourselves competent to express a view on the correctness of the adjustments made for the written-down value of capital contributions at 30 June 2004 or for capital expenditure or depreciation in the two years ending 30 June 2006 as their verification is an accounting matter. We did, however, consider that the figures appeared to be reasonable.

(c) Having considered as described in sections 4 to 9 of this report the reasonableness and appropriateness of the components and values in Western Power's south-west transmission and distribution network's proposed operations, maintenance and capital expenditure, considered also such other expert opinion as was available to us on the matter and compared the forecast expenditures with historical levels and with those of other network businesses, our opinion in respect of Western Power's proposed expenditures is as set out in (d), (e) and (f) below.

(d) Western Power's proposed transmission and distribution capex during the access arrangement period may be accepted as reasonable in the context of a prudent service provider acting in accordance with good industry practice and seeking to minimise costs efficiently whilst meeting its agreed service standards.

(e) Consideration should be given to reducing Western Power's proposed transmission opex during the access arrangement period to the figures stated in table 6.4 in section 6.5 of this report.

(f) Consideration should be given to reducing Western Power's proposed distribution opex during the access arrangement period to the figures stated in table 8.4 in section 8.6 of this report.

(g) Western Power ought to set or be required to set a tougher performance target for its distribution network reliability, particularly in relation to SAIDI, as its present target is not considered by us to be sufficiently challenging.

(h) At the same time and for the same reason, the Authority might consider why Western Power ought not to set or be required to set accompanying efficiency and innovation benchmarks as well.

The reductions proposed in recommendations (e) and (f) above arise from the lack of supporting information available to us to justify to our satisfaction the network support expenditure and network operations expenditure proposed for transmission and distribution. These expenditure categories exhibit large, unexplained, increases from their present levels.

We have not proposed a distribution network reliability target for the Authority's consideration since reliability matters are subject to review by others.

10.2 Key Expenditure-Related Matters for Consideration

In concluding this report, we draw the Authority's attention to the key expenditure-related matters discussed in section 4 of the report:

Constrained Expenditure v. Network Reliability

Western Power prepared expenditure estimates with expert engineering assistance (section 4.1) but subsequently reduced the estimates by around 50% in the case of its transmission capex and 40% in the case of distribution capex from the levels that had been validated (Western Power's word) by its expert advisers (section 4.2).

Whilst we agree that a substantial increase in expenditure is needed from historical levels, we remain troubled by the perceived ambiguity in the Corporation's statements and the premise that its expenditure can be cut back to such an extent (after having been studied comprehensively by its expert advisers) whilst its projected network performance targets (principally SAIDI) are still met – unless they also were cut back or were not sufficiently challenging in the first place (section 4.3).

Validity of the General Proposition

We were unconvinced by Western Power's general proposition that since less capital expenditure is requested than required, that which was requested is efficient and justified (section 4.3). We argued instead that all expenditures ought to be justified. In some instances, expenditures were not justified to our satisfaction and we have proposed that they be reduced or rejected. Having accepted the remainder, our view is that they should be accompanied by a more challenging distribution network reliability performance target and this also has been recommended.

Impact of Past Levels of Expenditure

We considered whether past levels of capital expenditure were influencing the present expenditure proposals. Western Power's position is that its capital expenditure has been constrained but the Department of Treasury and Finance has expressed a different view (section 4.4).

Irrespective of the reasons given for past levels of expenditure, we accepted that the level of expenditure would need to be increased to ensure satisfactory network performance in the future and this is reflected in our recommendations.

Sharper Focus Needed on Outcomes and Efficiency

We formed the view that Western Power's expenditure plans at the distribution level still tend to lack definition. By that we mean that a lack of finality in the documented asset management strategies and an accompanying, apparent, lack of targeting of expenditure are evident (section 4.5).

It was not clear to us that the business is focussing strongly enough on the factors most affecting network performance or on the actions needed to achieve results. This was evidenced by a lack of up-to-date strategies for specific classes of assets, slow progress on items previously identified as important, and the Corporation's view that it is under-resourced. It may also be a factor in the Corporation's lack of willingness to set more aggressive network performance targets or efficiency and innovation benchmarks.

A stronger focus is needed on outcomes and efficiency, rather than on processes, combined with well-targeted capital investment.

A beneficial outcome of more focussed thinking is likely to be the more convincing articulation of expenditure requirements and their accompanying benefits, thus lessening the likelihood of refusal or reduction by higher levels of management or during the shareholder approval phase.

No doubt this will need to be accompanied by further cultural change in the organisation as it moves into the new era.

It might also, desirably, be accompanied by a focus on the reduction of indirect costs.

Planning and Design Criteria and the Draft Technical Rules

New design standards have been contemplated but the associated costs have not been included in the estimates in Western Power's access arrangement information. Should the changes be endorsed, a corresponding increase in forecast distribution capital expenditure would be proposed by Western Power (section 4.6).

Overcoming the Resource Constraints

As a final observation, Western Power is not alone in requiring additional resources to undertake its network expansion and refurbishment programmes. We therefore considered again whether the Corporation would be able to implement its plans. Whilst the answer can only be conjectured, we see no reason why Western Power, along with others in the country and worldwide, cannot gear up for the additional workload foreseen, providing it does take concerted action for the purpose (section 4.7).

10.3 Disclaimer

Wilson Cook & Co Limited has prepared this report in accordance with the instructions of its client on the basis that all data and information that may affect its conclusions have been made available to it. No responsibility is accepted if full disclosure has not been made. No responsibility is accepted for any consequential error or defect in our conclusions resulting from any error, omission or inaccuracy in the data or information supplied directly or indirectly.

This report has been prepared solely for our client for the stated purpose. Wilson Cook & Co Limited, its officers, agents, subcontractors and their staff owe no duty of care and accept no liability to any other party, make no representation or warranty as to the accuracy or completeness of the information or opinions set out in the report to any person other than to

its client including any errors or omissions howsoever caused, and do not accept any liability to any party if the report is used for other than is stated purpose.

Appendix A: Terms of Reference

Background

Western Power owns the only network "covered" by the *Electricity Networks Access Code 2004* (the Code) in the South West Interconnected System (SWIS). This network is known as the South West Interconnected Network (SWIN).

Western Power is expected to submit its proposed Access Arrangement to the Economic Regulation Authority (Authority) by 24 August 2005.

Tasks

The Authority seeks to engage an expert consultant from the electricity panel established under RFT 3905 to provide an assessment of the:

- technical merit;
- appropriateness of the methodologies employed; and
- reasonableness of the cost bases,

of Western Power's proposed capital base valuation; and forecasts of capital and operations and maintenance expenditure for the three year forthcoming regulatory period.

The consultant's advice will assist the Authority in its review and approval process for the Access Arrangement.

The consultant will be required to provide to the Authority draft and final written (including a copy in an agreed electronic format) expert engineering recommendations and comments in relation to Western Power's proposed valuations and forecasts.

- The detailed statement of requirements of the consultancy task is included in Attachment A.

The consultant is to have regard to industry best practice, all applicable legislation, precedent relevant to regulated energy infrastructure in Australia, including the objectives of the Code (refer Code s. 2.1) and the characteristics of the SWIN, as defined in the *Electricity Industry Act 2004* (the Act).

The Consultant should be aware that Western Power may seek to adopt, as its network valuation, the outcome of a valuation exercise prepared by PricewaterhouseCoopers (PwC) on behalf of Western Power and the Office of Energy during 2004.

Timing

The Authority expects Western Power to lodge its Access Arrangement by Wednesday 24 August 2005.

The successful tenderer will be requested to commence this assignment immediately upon notification by the Authority, which is likely to be soon after receipt of Western Power's proposed Access Arrangement.

The successful tenderer will be required to submit a draft report for review and discussion with the Authority prior to finalising its advice.

The successful tenderer will be required to submit its final report to the Authority no later than 35 business days following its receipt of Western Power's proposed Access Arrangement, or as otherwise agreed with the Authority.

Attachment A – Statement of Requirement

The consultant will be required to address the following matters for Western Power's Covered infrastructure in the South West Interconnected System (SWIS) for both transmission and distribution networks and infrastructure.

Initial Capital Base Valuation

The consultant will be required to review and comment on the following:

- valuation methodology proposed by Western Power, including relevant considerations and benefits of alternative valuation methodologies (for example optimised deprival valuation (ODV) and depreciated optimised replacement cost (DORC), and consistent with the requirements of section 6.46 of the Code;
- appropriateness of specific assumptions made by Western Power in its valuation calculations, such as replacement costs, asset lives, asset ages and approach to optimisation and economic valuation;
- Western Power's asset registers, including levels of accuracy and maintenance and the extent to which they can be relied upon as a meaningful basis for determining an asset base valuation for the SWIN;
- appropriateness and accuracy of depreciation schedules applicable to the relevant asset classes;
- assessment of the level of confidence held regarding the correctness of the underlying data and the calculations used by Western Power in its valuation, including the quality of data and degree of estimation and subjectivity involved; and
- identify any other specific issues that in the opinion of the consultant have arisen and may warrant further consideration.

Capital Expenditure and Operations and Maintenance Expenditure Forecasts

The consultant will be required to review and comment on the following areas relevant to the forthcoming regulatory period:

- review and comment on the reasonableness, and appropriateness of, or recommend alternatives to, the components and values in Western Power's SWIN transmission and distribution networks proposed Operations and maintenance (OPEX) and capital expenditure (CAPEX);
- review relevant Western Power consultants' reports of OPEX and CAPEX forecasts for the transmission and distribution businesses;
- compare Western Power OPEX and CAPEX forecasts with historical OPEX and CAPEX expenditure;
- investigate and comment on any discrepancies and make recommendations;
- compare Western Power OPEX and CAPEX forecasts and historical averages against data for similar wires businesses elsewhere; and
- investigate and comment on any discrepancies and make recommendations.

It is anticipated that this work will involve discussions with Western Power personnel as well as reviewing relevant Western Power records and financial models in Perth.

Appendix B: List of Personnel Met

Meetings or discussions were held with the following personnel:

The Authority

Mr Lyndon Rowe, Chairman
Mr Peter Kolf, General Manager
Mr Alistair Butcher, Acting Director, Electricity Access
Ms Annette Stokes, Acting Manager, Projects
Mr Robert Pullella, Acting Executive Director, Industry Policy
Mr Matt Robson, Manager, Projects
Mr Greg Shales, Contractor.

Western Power's Network Business Unit

Mr Peter Mattner, Network Pricing and Regulation Manager
Mr Phil Southwell, Manager, Networks Strategy and Regulation Branch
Mr Andrew Wood, Metering Services Manager
Mr Bill Bignell, System Capacity Manager
Mr Neil Chivers, Access Services Manager
Mr Laurie Curro, Network Performance Manager
Mr Brett Donovan, Information Technology Strategic Analyst
Mr Gavin Forrest, Organisation and Business Improvement Manager
Mr Neil Gibbney, Network Pricing Engineer
Dr Nenad Kolibas, Networks Asset Manager
Mr Syd McDowell, Manager, System Optimisation Branch
Mr Peter Martino, Distribution Development Manager
Mr Rob Rogerson, Distribution Asset Integration Manager
Mr Max Szmekura, Manager, Finance and Administration Branch
Mr Robert Walker, Business Analysis Resource Engineer.

Alistair Butcher

From: Jeffrey Wilson [jeffrey.wilson@wilsoncook.co.nz]
Sent: Tuesday, 17 January 2006 11:40 AM
To: Alistair Butcher; Annette Stokes
Cc: Derek Walker at Wilson Cook
Subject: Review of Additional Information Received from Western Power on 13 January 2006

Dear Alistair and Annette,

In response to your email of Friday 13th January titled "FW: Info for Wilson Cook review (7)" we report as follows.

1. NETWORK OPERATIONS COSTS

The spreadsheet titled "NOCC cost info for ERA 13 JAN 06 per DMS#2612757v7A.XLS" and the Word document titled "Further justification of network operations costs for ERA 13 Jan 06 per DMS#2725431v1.doc" were provided to us by Western Power through your office and have been reviewed. The main points noted from our review and analysis of the revised data are:

(a) Most of the justification for additional costs relates to extra staff necessary for activities in the control room.

(b) The proposed increase in labour costs between YE 2006 and YE 2007 is 32% but the number of extra staff proposed does not appear to correspond to the stated level of increase.

(c) Labour estimates in the various employment categories appear to have been prepared by taking total labour cost and allocating it to the labour categories based on FY 2006 staff numbers, suggesting an estimate made after the event rather than a robust bottom-up basis for the estimation.

(d) One new position is related to RPIP but that programme has only two years to run and would not meet the "efficiently minimising costs" test anyway.

(e) The doubling of half-year costs to give an annualised cost is not necessarily a good measure: the main variation appears to be in materials, not labour, and that could be influenced by the timing of the expenditures.

If this information had been provided to us earlier, it is possible that some increase in costs from FY 2006 to FY 2007 may have been found justifiable after further examination but in our opinion it is unlikely that they would be found acceptable to the extent proposed by Western Power.

Any adjustment that we might now make based on the information received would not be material and thus no adjustment is proposed.

2. NETWORK SUPPORT COSTS

The spreadsheet titled "Revised support costs for the ERA 13 Jan 06" was provided to us by Western Power through your office. The spreadsheet contains revised network support costs and Western Power's accompanying email explains the changes saying:

“We have now reviewed the Opex Support expenditure, particularly in light of the recently completed State Budget Forecast (SBF). Please note that the network support opex detailed in this response is different to that originally submitted in the access arrangement. This is because the original numbers were prepared based on a set of assumptions, as they were understood at the time, related to the disaggregation of Western Power. Those assumptions have now been revised in light of the finalisation of arrangements for disaggregation. The SBF was signed off by the Western Power board on 10/01/06 and we do not expect there to be further changes.

“The major items on which we now have more clarity are:
• Costs of forming a stand-alone Networks business - e.g. Board, Corporate Finance, Governance etc. These are referred to in the SBF as "Reform Impact" costs. In the original submission, Corporate Allocations were used as a proxy estimate for these costs.
• Insurance estimates are now more accurate as the insurance strategy has been completed and we have more accurate estimates from insurers.
• A clearer view of Reform related projects - predominantly IT. Theses are referred to as "Reform Projects" in the SBF. “

Detailed breakdowns of expenditure that had not been provided in the AAI have been provided in the spreadsheet. There are also three hidden columns in the spreadsheet which on opening were found to contain a breakdown of costs that appears to reconcile approximately with the costs reported in the AAI.

The main points noted from our review and analysis of the revised data are:

(a) No changes have been made to the internal business unit cost estimates, the changes being in corporate cost allocations and insurance estimates.

(b) The revised transmission proposal is very close to our proposed level.

(c) The revised distribution proposal is less than Western Power’s original estimate but higher than our proposal. Increased insurance costs account for about 60% of the difference.

(d) The allocations between distribution and transmission exhibit some conflicting patterns. For example, distribution’s share of executive management costs varies over the period between 8% and 21% of the total whereas most corporate costs are allocated 65% to distribution. Another example is the large expenditure proposed under the heading ‘customer service and process improvement’, starting from FY 2006 and continuing through the review period. It is around $6.5 m p.a. in total, of which only 36% is allocated to distribution with the remainder allocated to transmission.

(e) Whilst insurance costs are projected to increase significantly, we note that actual insurance costs in FY 2006 are well below that forecast for that year (see the presentation material given to us during our visit) and the costs included in Appendix 7 of the AAI, raising questions about the necessity for the level estimated.

We do not consider that the additional information provides a sufficiently robust basis for a change in the opinion stated in our Final Report of 21 December, 2005 in regard to these costs. However, the Authority might consider whether there is a mechanism for allowing the recovery of increased insurance costs should they arise during the period, subject to receiving satisfactory supporting evidence at the time.

On behalf of Wilson Cook & Co Limited
Yours faithfully,
Jeffrey Wilson

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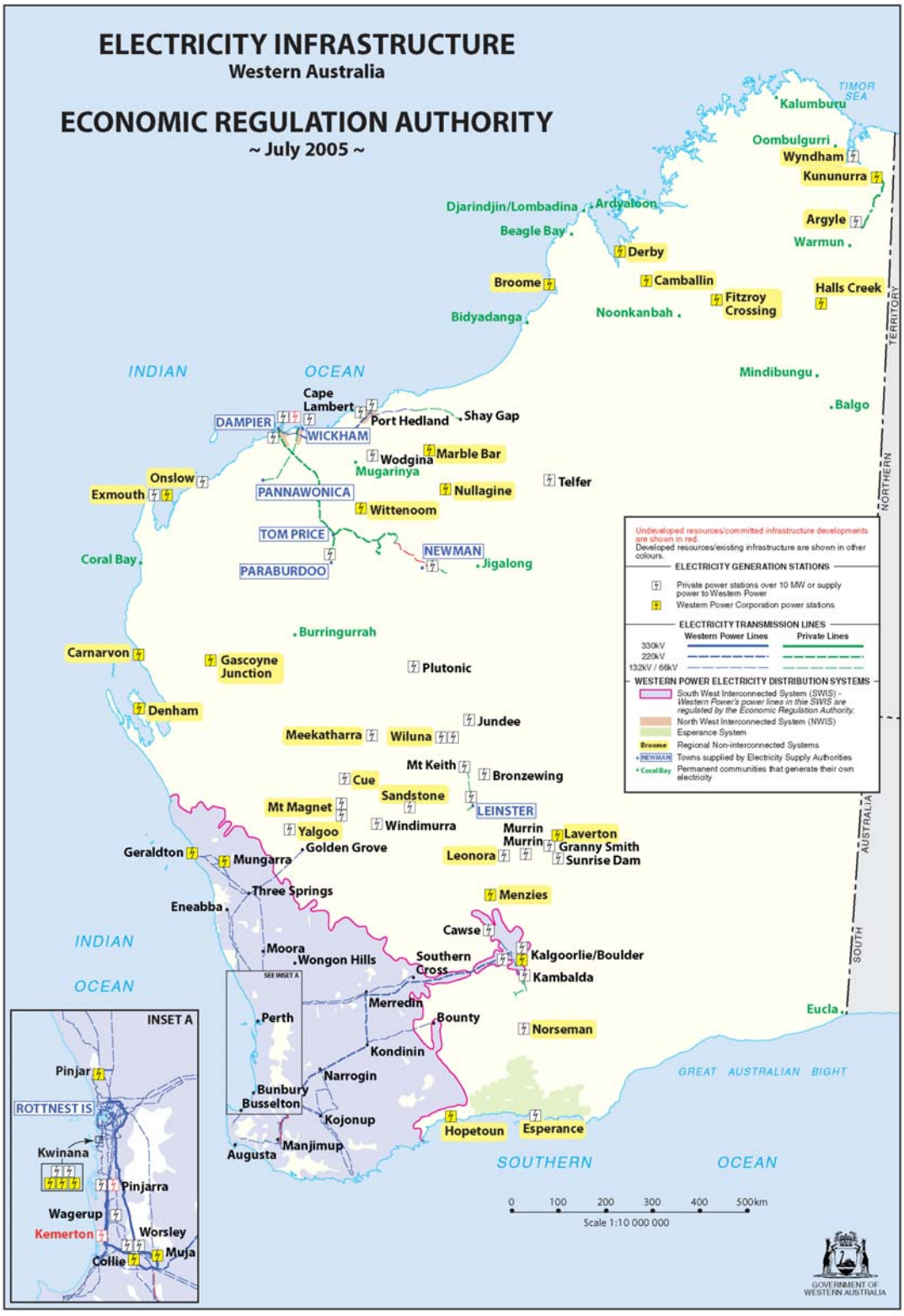
Appendix 4 Map of Western Australian Electricity Supply Network



Appendix 5 Authority's revenue model

Western Power Draft Decision Real Pre-tax Model

WACC Updated as at 28 Feb 2006

All model inputs are entered into the inputs cells of this worksheet denoted as; **13.480**

Ref	2	3	5	7	9
6			Total WPC	Distribution	Transmission
7		**30/06/2006 Asset Value [m$ 30/06/06]**	**Real**	**Real**	**Real**
8		Asset Value	2,852.097	1,480.700	1,371.397
9		Working Capital	-	-	-
10		Regulatory Asset Base	2,852.097	1,480.700	1,371.397
11		**30/06/2009 Asset Value [m$ 30/06/06]**			
12		Asset Value	3,620.664	1,916.072	1,704.592
13		Working Capital	-	-	-
14		Regulatory Asset Base	3,620.664	1,916.072	1,704.592
15		**PV of Gross Cost of Service [m$ 30/06/06]**			
16		Opex	573.117	383.211	189.905
17		Depreciation	389.205	250.192	139.013
18		Redundant Assets (Accelerated Depreciation)	-	-	-
19		Return on Assets	496.820	258.583	238.238
20		Return on Working Capital	0.000	-	0.000
21		Cost of Service	1,459.142	891.986	567.156
22		**PV of Gross Regulatory Revenue [m$ 30/06/06]**			
23		Opex	573.117	383.211	189.905
24		Capex	1,083.865	646.803	437.063
25		Asset Disposal	-9.957	-9.957	-
26		Asset Opening Value	2,852.097	1,480.700	1,371.397
27		Asset Residual Value	-3,039.979	-1,608.771	-1,431.208
28		Working Capital Variation	-	-	-
29		Gross Regulatory Revenue	1,459.142	891.986	567.156
30		**Check**	**OK**	**OK**	**OK**
31		**PV of Net Regulatory Revenue [m$ 30/06/06]**			
32		Gross CoS	1,459.142	891.986	567.156
33		Miscellaneous Revenue	-16.208	-16.208	-
34		Tariff Equalisation	152.598	152.598	-
35		Capital Contribution	-250.938	-235.779	-15.159
36		Net Regulatory Revenue	1,344.594	792.597	551.997
37		**PV of Smoothed Revenue (AARR) [m$ 30/06/06]**			
38		PV of Allowable Annual Regulatory Revenue	1,344.594	792.597	551.997
39		**Check**	**OK**	**OK**	**OK**
40		Smoothed Allowable Annual Regulatory Revenue	503.026	296.518	206.507
41		**PV of Net Cash Flow [m$ 30/06/06]**			
42		Revenue	1,344.594	792.597	551.997
43		Opex	-573.117	-383.211	-189.905
44		Capex	-1,083.865	-646.803	-437.063
45		Asset Disposal	9.957	9.957	-
46		Miscellaneous Revenue	16.208	16.208	-
47		Tariff Equalisation	-152.598	-152.598	-
48		Capital Contribution	250.938	235.779	15.159
49		Asset Opening Value	-2,852.097	-1,480.700	-1,371.397
50		Asset Residual Value	3,039.979	1,608.771	1,431.208
51		Working Capital Variation	-	-	-
52		Net Cash Flow	-	-	-
53		**Check**	**OK**	**OK**	**OK**
54		**Internal Rate of Return**	**Pre-tax WACC**		
55		Real	6.00%	6.00%	6.00%
56		Nominal	9.13%	9.13%	9.13%
57		**Check**		**OK**	**OK**
58		**Check**		**OK**	**OK**

Western Power Draft Decision Real Pre-tax Model

Ref	2	3	5	7	8	9	10	11
3		**Determination of the Weighted Average Cost**	**WPC**	**ERA**	**ERA**	**ERA**	**ERA**	**ERA**
4		**of Capital (WACC)**	**Model**	**Lo**	**Hi**	**Lo + 10%**	**Hi - 10%**	**DD**
5		**Date of Risk Free Rates**	**?????**	**28-Feb-06**	**28-Feb-06**	**28-Feb-06**	**28-Feb-06**	**28-Feb-06**
6		**Nominal Risk Free Rate (Rfn)**	**6.00%**	**5.28%**	**5.28%**	**5.28%**	**5.28%**	**5.28%**
7		**Real Risk Free Rate (Rfr)**	**3.33%**	**2.26%**	**2.26%**	**2.26%**	**2.26%**	**2.26%**
8		Inflation Rate (I)	2.58%	2.95%	2.95%	2.95%	2.95%	2.95%
9		**Debt Proportion (D)**	**60%**	**60%**	**60%**			
10		Equity Proportion (E)	40%	40%	40%			
11		**Cost of Debt; Debt Risk Premium (Drp)**		**1.100%**	**1.300%**			
12		**Cost of Debt; Debt Issuing Cost (Disc)**		**0.125%**	**0.125%**			
13		Cost of Debt; Risk Margin (DRm)	**0.800%**	1.225%	1.425%			
14		Australian Market Risk Premium (Rp)	**8.2015%**	**5.00%**	**6.00%**			
15		Debt Beta (Bd)	0.10	0.25	0.24			
16		**Equity Beta (Be)**	**0.82**	**0.80**	**1.00**			
17		Asset Beta (Ba)	0.39	0.47	0.54			
18		**Corporate Tax Rate (T)**	**30%**	**30%**	**30%**	**30%**	**30%**	**30%**
19		**Franking Credit (g)**	**50%**	**60%**	**30%**			
20		Imputation Adj (G)	82.4%	79.5%	88.6%			
21	**Debt**							
22		Nominal Cost of Debt (DPn)	6.80%	6.51%	6.71%			
23		Real Cost of Debt (DPr)	4.11%	3.45%	3.64%			
24	**Equity**							
25		Nominal Pre Tax Cost of Equity (EPn)	14.97%	10.55%	14.28%			
26		Real Pre Tax Cost of Equity (EPr)	12.08%	7.37%	11.00%			
27		Nominal After Tax Cost of Equity (EAn)	12.73%	9.28%	11.28%			
28		Real After Tax Cost of Equity (EAr)	9.89%	6.15%	8.09%			
29	**WACC; Pre-tax Officer (Market Practise or Forward Transformation)**							
30		Nominal Pre Tax WACC (WPn)	10.07%	8.12%	9.73%	8.28%	9.57%	9.13%
31		**Real Pre Tax WACC (WPr)**	**7.30%**	**5.02%**	**6.59%**	**5.18%**	**6.43%**	**6.00%**
32	**WACC; After-tax Officer**							
33		Nominal After Tax WACC (WAn)	7.05%	5.68%	6.81%	5.80%	6.70%	6.39%
34		Real After Tax WACC (WAr)	4.36%	2.65%	3.75%	2.76%	3.64%	3.34%

Western Power Draft Decision Real Pre-tax Model

Ref	2	3	4	5	6	8	9	10	11	12	13
Year ending 30 June						**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Project Year						**-2**	**-1**	**0**	**1**	**2**	**3**
5	**WPC's Inflation**										
6	June CPI					**144.8**	**148.4**	152.2	156.2	160.2	164.3
7	Annual Inflation						2.49%	2.58%	2.58%	2.58%	2.58%
8	Inflation Factor							1.000	1.026	1.052	1.079
9	**ERA's Inflation**										
10	June CPI					**144.8**	**148.4**	152.8	157.3	161.9	166.7
11	Annual Inflation						2.49%	2.95%	2.95%	2.95%	2.95%
12	Inflation Factor							1.000	1.030	1.060	1.091
13	**Pre-tax WACC**										
14	Real							6.00%	6.00%	6.00%	6.00%
15	Real Discount Factor							1.000	1.060	1.124	1.191
16	Nominal							9.13%	9.13%	9.13%	9.13%
17	Nominal Discount Factor							1.000	1.091	1.191	1.300
18											

ICB											
Year ending 30 June											
Project Year											
ICB [m$ 30/06/2006]			**Life as at 30 June 2006 [Years]**								
23	**Distribution**		**WPC**	**ERA**	**Modelled**				**WPC**	**ERA**	**Modelled**
24	Wooden Pole Lines		**14.199**	14.199	14.199				**444.839**	444.839	444.839
25	Underground Cables		**34.937**	34.937	34.937				**489.764**	489.764	489.764
26	Transformers		**16.424**	16.424	16.424				**190.294**	190.294	190.294
27	Switchgear		**12.893**	12.893	12.893				**99.798**	99.798	99.798
28	Street lighting		**1.200**	1.200	1.200				**5.200**	5.200	5.200
29	Meters and Services		**8.900**	8.900	8.900				**157.900**	157.900	157.900
30	IT&T		**25.150**	25.150	25.150				**20.096**	20.096	20.096
31	SCADA & Communications		**25.150**	25.150	25.150				**12.434**	12.434	12.434
32	Other Distribution Non-Network		**25.150**	25.150	25.150				**43.474**	43.474	43.474
33	Distribution Land & Easements			-	-				**16.900**	16.900	16.900
34	Total Distribution								1,480.700	1,480.700	1,480.700
35											

Capex									
Year ending 30 June				2004	2005	2006	2007	2008	2009
Project Year				-2	-1	0	1	2	3
WPC's Capex [m$ OD]	Life as at 30 June 2006 [Years]								
40 Distribution	WPC	ERA	Modelled						
41 Wooden Pole Lines	41.000	41.000	41.000				51.040	65.605	75.052
42 Underground Cables	60.000	60.000	60.000				94.898	99.420	108.588
43 Transformers	35.000	35.000	35.000				28.211	27.186	27.678
44 Switchgear	35.000	35.000	35.000				21.871	25.221	27.173
45 Street lighting	20.000	20.000	20.000				11.572	11.772	13.224
46 Meters and Services	25.000	25.000	25.000				4.401	8.089	10.000
47 IT&T	10.158	10.158	10.158				15.212	11.382	13.000
48 SCADA & Communications	10.158	10.158	10.158				2.137	1.767	1.900
49 Other Distribution Non-Network	10.158	10.158	10.158				3.213	3.534	3.800
50 Distribution Land & Easements		-	-				-	-	-
51 Total Distribution Capex							232.555	253.974	280.415
Capex Adjustment [m$ OD]		Life as at 30 June 2006 [Years]							
53 Distribution									
54 Wooden Pole Lines			41.000				-	-	-
55 Underground Cables			60.000				-	-	-
56 Transformers			35.000				-	-	-
57 Switchgear			35.000				-	-	-
58 Street lighting			20.000				-	-	-
59 Meters and Services			25.000				-	-	-
60 IT&T			10.158				-	-	-
61 SCADA & Communications			10.158				-	-	-
62 Other Distribution Non-Network			10.158				-	-	-
63 Distribution Land & Easements			-				-	-	-
64 Total Distribution Capex							-	-	-
Approved Capex [m$ OD]		Life as at 30 June 2006 [Years]							
66 Distribution									
67 Wooden Pole Lines			41.000				51.040	65.605	75.052
68 Underground Cables			60.000				94.898	99.420	108.588
69 Transformers			35.000				28.211	27.186	27.678
70 Switchgear			35.000				21.871	25.221	27.173
71 Street lighting			20.000				11.572	11.772	13.224
72 Meters and Services			25.000				4.401	8.089	10.000
73 IT&T			10.158				15.212	11.382	13.000
74 SCADA & Communications			10.158				2.137	1.767	1.900
75 Other Distribution Non-Network			10.158				3.213	3.534	3.800
76 Distribution Land & Easements			-				-	-	-
77 Total Distribution Capex							232.555	253.974	280.415
Modelled Capex [m$ 30/06/06]		Life as at 30 June 2006 [Years]							
79 Distribution									
80 Wooden Pole Lines			41.000				49.757	62.346	69.531
81 Underground Cables			60.000				92.512	94.482	100.599
82 Transformers			35.000				27.501	25.835	25.642
83 Switchgear			35.000				21.320	23.968	25.174
84 Street lighting			20.000				11.281	11.187	12.251
85 Meters and Services			25.000				4.291	7.687	9.264
86 IT&T			10.158				14.829	10.817	12.044
87 SCADA & Communications			10.158				2.083	1.679	1.760
88 Other Distribution Non-Network			10.158				3.133	3.358	3.520
89 Distribution Land & Easements			-				-	-	-
90 Total Distribution Capex							226.706	241.360	259.784
Modelled Capex [m$ OD]		Life as at 30 June 2006 [Years]							
92 Distribution									
93 Wooden Pole Lines			41.000				51.226	66.083	75.875
94 Underground Cables			60.000				95.244	100.145	109.777
95 Transformers			35.000				28.314	27.384	27.982
96 Switchgear			35.000				21.950	25.405	27.471
97 Street lighting			20.000				11.614	11.857	13.369
98 Meters and Services			25.000				4.417	8.148	10.110
99 IT&T			10.158				15.267	11.465	13.142
100 SCADA & Communications			10.158				2.144	1.780	1.921
101 Other Distribution Non-Network			10.158				3.225	3.559	3.841
102 Distribution Land & Easements			-				-	-	-
103 Total Distribution Capex							233.401	255.826	283.487
104									

	Capex Contribution									
	Year ending 30 June				2004	2005	2006	2007	2008	2009
	Project Year				-2	-1	0	1	2	3
	WPC's Capex Contribution [m$ OD]			Life as at 30 June 2006 [Years]						
109	Distribution	WPC	ERA	WPC						
110	Wooden Pole Lines	41.000	41.000	41.000				2.338	2.320	2.339
111	Underground Cables	60.000	60.000	60.000				63.504	64.826	66.988
112	Transformers	35.000	35.000	35.000				10.284	10.466	10.785
113	Switchgear	35.000	35.000	35.000				6.611	6.727	6.931
114	Street lighting	20.000	20.000	20.000				7.915	8.099	8.382
115	Meters and Services	25.000	25.000	25.000				-	-	-
116	IT&T	10.158	10.158	10.158				-	-	-
117	SCADA & Communications	10.158	10.158	10.158				-	-	-
118	Other Distribution Non-Network	10.158	10.158	10.158				-	-	-
119	Distribution Land & Easements		-	-				-	-	-
120	Total Distribution Capex Contributions							90.652	92.438	95.425
	Capex Contribution Adjustment [m$ OD]			Life as at 30 June 2006 [Years]						
122	Distribution									
123	Wooden Pole Lines			41.000				-	-	-
124	Underground Cables			60.000				-	-	-
125	Transformers			35.000				-	-	-
126	Switchgear			35.000				-	-	-
127	Street lighting			20.000				-	-	-
128	Meters and Services			25.000				-	-	-
129	IT&T			10.158				-	-	-
130	SCADA & Communications			10.158				-	-	-
131	Other Distribution Non-Network			10.158				-	-	-
132	Distribution Land & Easements			-				-	-	-
133	Total Distribution Capex Contributions							-	-	-
	Approved Capex Contribution [m$ OD]			Life as at 30 June 2006 [Years]						
135	Distribution									
136	Wooden Pole Lines			41.000				2.338	2.320	2.339
137	Underground Cables			60.000				63.504	64.826	66.988
138	Transformers			35.000				10.284	10.466	10.785
139	Switchgear			35.000				6.611	6.727	6.931
140	Street lighting			20.000				7.915	8.099	8.382
141	Meters and Services			25.000				-	-	-
142	IT&T			10.158				-	-	-
143	SCADA & Communications			10.158				-	-	-
144	Other Distribution Non-Network			10.158				-	-	-
145	Distribution Land & Easements			-				-	-	-
146	Total Distribution Capex Contributions							90.652	92.438	95.425
	Modelled Capex Contribution [m$ 30/06/06]			Life as at 30 June 2006 [Years]						
148	Distribution									
149	Wooden Pole Lines			41.000				2.279	2.205	2.167
150	Underground Cables			60.000				61.907	61.606	62.059
151	Transformers			35.000				10.025	9.946	9.992
152	Switchgear			35.000				6.445	6.393	6.421
153	Street lighting			20.000				7.716	7.696	7.766
154	Meters and Services			25.000				-	-	-
155	IT&T			10.158				-	-	-
156	SCADA & Communications			10.158				-	-	-
157	Other Distribution Non-Network			10.158				-	-	-
158	Distribution Land & Easements			-				-	-	-
159	Total Distribution Capex Contributions							88.372	87.847	88.404
	Modelled Capex Contribution [m$ OD]			Life as at 30 June 2006 [Years]						
161	Distribution									
162	Wooden Pole Lines			41.000				2.346	2.337	2.364
163	Underground Cables			60.000				63.736	65.299	67.722
164	Transformers			35.000				10.321	10.543	10.903
165	Switchgear			35.000				6.635	6.776	7.007
166	Street lighting			20.000				7.944	8.158	8.474
167	Meters and Services			25.000				-	-	-
168	IT&T			10.158				-	-	-
169	SCADA & Communications			10.158				-	-	-
170	Other Distribution Non-Network			10.158				-	-	-
171	Distribution Land & Easements			-				-	-	-
172	Total Distribution Capex Contributions							90.982	93.112	96.470
173										

Asset Disposal							
Year ending 30 June		2004	2005	2006	2007	2008	2009
Project Year		-2	-1	0	1	2	3
Asset Disposal [m$ OD]							
178	Distribution						
179	Wooden Pole Lines				2.936	2.936	2.936
180	Underground Cables				-	-	-
181	Transformers				0.783	0.783	0.783
182	Switchgear				0.196	0.196	0.196
183	Street lighting						
184	Meters and Services				-	-	-
185	IT&T				-	-	-
186	SCADA & Communications				-	-	-
187	Other Distribution Non-Network				-	-	-
188	Distribution Land & Easements				-	-	-
189	Total Asset Disposal						
Asset Disposal [m$ OD]							
191	Distribution						
192	Wooden Pole Lines				-	-	-
193	Underground Cables				-	-	-
194	Transformers				-	-	-
195	Switchgear				-	-	-
196	Street lighting				-	-	-
197	Meters and Services				-	-	-
198	IT&T				-	-	-
199	SCADA & Communications				-	-	-
200	Other Distribution Non-Network				-	-	-
201	Distribution Land & Easements				-	-	-
202	Total Asset Disposal				-	-	-
Asset Disposal [m$ OD]							
204	Distribution						
205	Wooden Pole Lines				2.936	2.936	2.936
206	Underground Cables				-	-	-
207	Transformers				0.783	0.783	0.783
208	Switchgear				0.196	0.196	0.196
209	Street lighting				-	-	-
210	Meters and Services				-	-	-
211	IT&T				-	-	-
212	SCADA & Communications				-	-	-
213	Other Distribution Non-Network				-	-	-
214	Distribution Land & Easements				-	-	-
215	Total Asset Disposal				3.915	3.915	3.915
Asset Disposal [m$ OD]							
217	Distribution						
218	Wooden Pole Lines				2.862	2.790	2.720
219	Underground Cables				-	-	-
220	Transformers				0.763	0.744	0.725
221	Switchgear				0.191	0.186	0.182
222	Street lighting				-	-	-
223	Meters and Services				-	-	-
224	IT&T				-	-	-
225	SCADA & Communications				-	-	-
226	Other Distribution Non-Network				-	-	-
227	Distribution Land & Easements				-	-	-
228	Total Asset Disposal				3.817	3.721	3.627
Asset Disposal [m$ OD]							
230	Distribution						
231	Wooden Pole Lines				2.947	2.957	2.968
232	Underground Cables				-	-	-
233	Transformers				0.786	0.789	0.792
234	Switchgear				0.197	0.197	0.198
235	Street lighting				-	-	-
236	Meters and Services				-	-	-
237	IT&T				-	-	-
238	SCADA & Communications				-	-	-
239	Other Distribution Non-Network				-	-	-
240	Distribution Land & Easements				-	-	-
241	Total Asset Disposal				3.929	3.944	3.958
242							

Opex							
Year ending 30 June		2004	2005	2006	2007	2008	2009
Project Year		-2	-1	0	1	2	3
WPC's Opex [m$ OD]							
247	Distribution						
248	Maintenance Strategy				6.271	6.318	6.397
249	Preventative Condition				13.480	13.818	14.275
250	Preventative Routine				23.253	23.853	24.774
251	Corrective Deferred				11.868	11.104	10.857
252	Corrective Emergency				22.437	20.956	20.497
253	Reliability				4.469	4.501	4.523
254	SCADA & Communications				0.867	0.902	0.935
255	Network Operations				8.487	8.829	9.192
256	IT&T				11.190	12.780	15.110
257	Metering				14.354	14.354	15.892
258	Call Centre				6.561	6.856	7.202
259	Network Support				33.007	37.359	37.252
260	Total Distribution Opex				156.245	161.631	166.905
Opex Adjustment [m$ OD]							
262	Distribution						
263	Maintenance Strategy				-	-	-
264	Preventative Condition				-	-	-
265	Preventative Routine				-	-	-
266	Corrective Deferred				-	-	-
267	Corrective Emergency				-	-	-
268	Reliability				-	-	-
269	SCADA & Communications				-	-	-
270	Network Operations				-1.102	-1.253	-1.420
271	IT&T				-	-	-
272	Metering				-	-	-
273	Call Centre				-	-	-
274	Network Support				-7.259	-10.947	-10.159
275	Total Distribution Opex				-8.361	-12.200	-11.579
Approved Opex [m$ OD]							
277	Distribution						
278	Maintenance Strategy				6.271	6.318	6.397
279	Preventative Condition				13.480	13.818	14.275
280	Preventative Routine				23.253	23.853	24.774
281	Corrective Deferred				11.868	11.104	10.857
282	Corrective Emergency				22.437	20.956	20.497
283	Reliability				4.469	4.501	4.523
284	SCADA & Communications				0.867	0.902	0.935
285	Network Operations				7.386	7.576	7.772
286	IT&T				11.190	12.780	15.110
287	Metering				14.354	14.354	15.892
288	Call Centre				6.561	6.856	7.202
289	Network Support				25.748	26.412	27.093
290	Total Distribution Opex				147.884	149.431	155.326
Modelled Opex [m$ 30/06/06]							
292	Distribution						
293	Maintenance Strategy				6.113	6.004	5.927
294	Preventative Condition				13.141	13.131	13.224
295	Preventative Routine				22.668	22.669	22.951
296	Corrective Deferred				11.570	10.552	10.058
297	Corrective Emergency				21.873	19.915	18.989
298	Reliability				4.357	4.278	4.190
299	SCADA & Communications				0.846	0.857	0.866
300	Network Operations				7.200	7.200	7.200
301	IT&T				10.909	12.145	13.998
302	Metering				13.993	13.641	14.723
303	Call Centre				6.396	6.516	6.672
304	Network Support				25.100	25.100	25.100
305	Total Distribution Opex				144.165	142.009	143.898
Modelled Opex [m$ OD]							
307	Distribution						
308	Maintenance Strategy				6.294	6.364	6.468
309	Preventative Condition				13.529	13.918	14.431
310	Preventative Routine				23.337	24.027	25.045
311	Corrective Deferred				11.912	11.185	10.976
312	Corrective Emergency				22.519	21.109	20.721
313	Reliability				4.486	4.534	4.572
314	SCADA & Communications				0.871	0.909	0.945
315	Network Operations				7.413	7.632	7.857
316	IT&T				11.231	12.873	15.276
317	Metering				14.406	14.458	16.066
318	Call Centre				6.585	6.906	7.281
319	Network Support				25.841	26.604	27.390
320	Total Distribution Opex				148.422	150.520	157.028
321							

Other Inputs							
Year ending 30 June		**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Project Year		**-2**	**-1**	**0**	**1**	**2**	**3**
Working Capital							
326	Proposed Value [m$ OD]			**31.668**	**38.493**	**45.723**	**49.112**
327	Adjustment [m$ OD]			**-31.668**	**-38.493**	**-45.723**	**-49.112**
328	Approved Value [m$ OD]			-	-	-	-
329	Modelled Real [m$ 30/06/2005]			-	-	-	-
330	Modelled Nominal [m$ OD]			-	-	-	-
331							
Year ending 30 June		**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Project Year		**-2**	**-1**	**0**	**1**	**2**	**3**
Tariff Equalisation							
335	Proposed Value [m$ OD]				**60.000**	**60.000**	**60.000**
336	Adjustment [m$ OD]				**-**	**-**	**-**
337	Approved Value [m$ OD]				60.000	60.000	60.000
338	Real Value [m$ 30/06/06]				58.491	57.020	55.586
339	Nominal Value [m$ OD]				60.218	60.437	60.657
340							
Year ending 30 June		**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Project Year		**-2**	**-1**	**0**	**1**	**2**	**3**
Miscellaneous Services							
344	Nominal Value [m$ OD]				**6.373**	**6.373**	**6.373**
345	Adjustment [m$ OD]				**-**	**-**	**-**
346	Approved Value [m$ OD]				6.373	6.373	6.373
347	Real Value [m$ 30/06/06]				6.213	6.056	5.904
348	Nominal Value [m$ OD]				6.396	6.419	6.443
349							
Year ending 30 June		**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Project Year		**-2**	**-1**	**0**	**1**	**2**	**3**
WPC's Expected Revenue							
353	AAI's Value [m$ OD]				**351.000**	**378.000**	**404.000**
354	Real Value [m$ 30/06/06]				342.172	359.225	374.277
355	Nominal Value [m$ OD]				352.277	380.756	408.426

Western Power Draft Decision Real Pre-tax Model

Ref	2	3	4	5	8	9	10	11	12	13
Year ending 30 June					**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Project Year					**-2**	**-1**	**0**	**1**	**2**	**3**
5	**WPC's Inflation**									
6		June CPI			144.8	148.4	152.2	156.2	160.2	164.3
7		Annual Inflation				2.49%	2.58%	2.58%	2.58%	2.58%
8		Inflation Factor					1.000	1.026	1.052	1.079
9	**ERA's Inflation**									
10		June CPI			144.8	148.4	152.8	157.3	161.9	166.7
11		Annual Inflation				2.49%	2.95%	2.95%	2.95%	2.95%
12		Inflation Factor					1.000	1.030	1.060	1.091
13	**Pre-tax WACC**									
14		Real					6.00%	6.00%	6.00%	6.00%
15		Real Discount Factor					1.000	1.060	1.124	1.191
16		Nominal					9.13%	9.13%	9.13%	9.13%
17		Nominal Discount Factor					1.000	1.091	1.191	1.300
18										
Distribution, Real Calculations [m$ 30/06/06]										
Year ending 30 June					**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Project Year					**-2**	**-1**	**0**	**1**	**2**	**3**
Asset Value [m$ 30/06/06]										
23	**Asset Value**									
24		Opening Asset Value						1,480.700	1,613.819	1,758.577
25		Adjusted Opening Asset Value								
26		Capex						226.706	241.360	259.784
27		Asset Disposal						-3.817	-3.721	-3.627
28		Depreciation						-89.771	-92.881	-98.663
29		Closing Asset Value					1,480.700	1,613.819	1,758.577	1,916.072
30		**Check**	**OK**							
31	**Asset & Working Capital Value**									
32		Opening Asset Value						1,480.700	1,613.819	1,758.577
33		Opening Working Capital						-	-	-
34		Regulatory Opening Asset Value						1,480.700	1,613.819	1,758.577
35										

	Year ending 30 June	2004	2005	2006	2007	2008	2009
	Project Year	-2	-1	0	1	2	3
	Asset Account [m$ 30/06/06]						
39	**Opening Value**						
40	Wooden Pole Lines				444.839	460.405	487.636
41	Underground Cables				489.764	568.257	647.179
42	Transformers				190.294	205.446	218.214
43	Switchgear				99.798	113.188	128.636
44	Street lighting				5.200	12.147	21.904
45	Meters and Services				157.900	144.449	134.223
46	IT&T				20.096	34.127	42.685
47	SCADA & Communications				12.434	14.023	15.002
48	Other Distribution Non-Network				43.474	44.878	46.199
49	Distribution Land & Easements				16.900	16.900	16.900
50	Total Distribution Capex				1,480.700	1,613.819	1,758.577
51	**Capex**						
52	Wooden Pole Lines				49.757	62.346	69.531
53	Underground Cables				92.512	94.482	100.599
54	Transformers				27.501	25.835	25.642
55	Switchgear				21.320	23.968	25.174
56	Street lighting				11.281	11.187	12.251
57	Meters and Services				4.291	7.687	9.264
58	IT&T				14.829	10.817	12.044
59	SCADA & Communications				2.083	1.679	1.760
60	Other Distribution Non-Network				3.133	3.358	3.520
61	Distribution Land & Easements				-	-	-
62	Total Distribution Capex				226.706	241.360	259.784
63	**Asset Disposal**						
64	Wooden Pole Lines				-2.862	-2.790	-2.720
65	Underground Cables				-	-	-
66	Transformers				-0.763	-0.744	-0.725
67	Switchgear				-0.191	-0.186	-0.182
68	Street lighting				-	-	-
69	Meters and Services				-	-	-
70	IT&T				-	-	-
71	SCADA & Communications				-	-	-
72	Other Distribution Non-Network				-	-	-
73	Distribution Land & Easements				-	-	-
74	Total Distribution Capex				-3.817	-3.721	-3.627
75	**Depreciation**						
76	Wooden Pole Lines				-31.329	-32.325	-33.617
77	Underground Cables				-14.019	-15.560	-17.135
78	Transformers				-11.586	-12.323	-13.009
79	Switchgear				-7.740	-8.333	-9.001
80	Street lighting				-4.333	-1.431	-1.123
81	Meters and Services				-17.742	-17.913	-18.221
82	IT&T				-0.799	-2.259	-3.324
83	SCADA & Communications				-0.494	-0.699	-0.865
84	Other Distribution Non-Network				-1.729	-2.037	-2.368
85	Distribution Land & Easements				-	-	-
86	Total Distribution Capex				-89.771	-92.881	-98.663
87	**Closing Value**						
88	Wooden Pole Lines			444.839	460.405	487.636	520.829
89	Underground Cables			489.764	568.257	647.179	730.642
90	Transformers			190.294	205.446	218.214	230.122
91	Switchgear			99.798	113.188	128.636	144.628
92	Street lighting			5.200	12.147	21.904	33.031
93	Meters and Services			157.900	144.449	134.223	125.266
94	IT&T			20.096	34.127	42.685	51.404
95	SCADA & Communications			12.434	14.023	15.002	15.897
96	Other Distribution Non-Network			43.474	44.878	46.199	47.352
97	Distribution Land & Easements			16.900	16.900	16.900	16.900
98	Total Distribution Capex			1,480.700	1,613.819	1,758.577	1,916.072
99							

	Year ending 30 June			2004	2005	2006	2007	2008	2009
	Project Year			-2	-1	0	1	2	3
	ICB [m$ 30/06/06]			Life as at 30 June 2006 [Years]					
103	**Opening Value**								
104	Wooden Pole Lines						444.839	410.649	376.747
105	Underground Cables						489.764	475.745	461.727
106	Transformers						190.294	177.944	165.663
107	Switchgear						99.798	91.867	83.957
108	Street lighting						5.200	0.867	-
109	Meters and Services						157.900	140.158	122.417
110	IT&T						20.096	19.297	18.498
111	SCADA & Communications						12.434	11.940	11.445
112	Other Distribution Non-Network						43.474	41.746	40.017
113	Distribution Land & Easements						16.900	16.900	16.900
114	Total Distribution Capex						1,480.700	1,387.113	1,297.371
115	**Asset Disposal**								
116	Wooden Pole Lines						-2.862	-2.790	-2.720
117	Underground Cables						-	-	-
118	Transformers						-0.763	-0.744	-0.725
119	Switchgear						-0.191	-0.186	-0.182
120	Street lighting						-	-	-
121	Meters and Services						-	-	-
122	IT&T						-	-	-
123	SCADA & Communications						-	-	-
124	Other Distribution Non-Network						-	-	-
125	Distribution Land & Easements						-	-	-
126	Total Distribution Capex						-3.817	-3.721	-3.627
127	**Depreciation**	**Total**	**Check**						
128	Wooden Pole Lines	-93.324	**OK**	14.199			-31.329	-31.112	-30.883
129	Underground Cables	-42.056	**OK**	34.937			-14.019	-14.019	-14.019
130	Transformers	-34.608	**OK**	16.424			-11.586	-11.537	-11.485
131	Switchgear	-23.171	**OK**	12.893			-7.740	-7.724	-7.707
132	Street lighting	-5.200	**OK**	1.200			-4.333	-0.867	-
133	Meters and Services	-53.225	**OK**	8.900			-17.742	-17.742	-17.742
134	IT&T	-2.397	**OK**	25.150			-0.799	-0.799	-0.799
135	SCADA & Communications	-1.483	**OK**	25.150			-0.494	-0.494	-0.494
136	Other Distribution Non-Network	-5.186	**OK**	25.150			-1.729	-1.729	-1.729
137	Distribution Land & Easements	-	**OK**	-			-	-	-
138	Total Distribution Capex	-260.650	**OK**				-89.771	-86.022	-84.857
139	**Closing Value**								
140	Wooden Pole Lines					444.839	410.649	376.747	343.144
141	Underground Cables					489.764	475.745	461.727	447.708
142	Transformers					190.294	177.944	165.663	153.453
143	Switchgear					99.798	91.867	83.957	76.068
144	Street lighting					5.200	0.867	-	-
145	Meters and Services					157.900	140.158	122.417	104.675
146	IT&T					20.096	19.297	18.498	17.699
147	SCADA & Communications					12.434	11.940	11.445	10.951
148	Other Distribution Non-Network					43.474	41.746	40.017	38.288
149	Distribution Land & Easements					16.900	16.900	16.900	16.900
150	Total Distribution Capex					1,480.700	1,387.113	1,297.371	1,208.887
151									

					2004	2005	2006	2007	2008	2009
	Year ending 30 June									
	Project Year				-2	-1	0	1	2	3
	CAPEX [m$ 30/06/06]									
155	**Opening Value**									
156	Wooden Pole Lines							-	49.757	110.889
157	Underground Cables							-	92.512	185.452
158	Transformers							-	27.501	52.551
159	Switchgear							-	21.320	44.680
160	Street lighting							-	11.281	21.904
161	Meters and Services							-	4.291	11.806
162	IT&T							-	14.829	24.186
163	SCADA & Communications							-	2.083	3.557
164	Other Distribution Non-Network							-	3.133	6.182
165	Distribution Land & Easements							-	-	-
166	Total Distribution Capex							-	226.706	461.206
167	**Capex**									
168	Wooden Pole Lines							49.757	62.346	69.531
169	Underground Cables							92.512	94.482	100.599
170	Transformers							27.501	25.835	25.642
171	Switchgear							21.320	23.968	25.174
172	Street lighting							11.281	11.187	12.251
173	Meters and Services							4.291	7.687	9.264
174	IT&T							14.829	10.817	12.044
175	SCADA & Communications							2.083	1.679	1.760
176	Other Distribution Non-Network							3.133	3.358	3.520
177	Distribution Land & Easements							-	-	-
178	Total Distribution Capex							226.706	241.360	259.784
179	**Depreciation**	**Total**	**Check**							
180	Wooden Pole Lines	-3.948	**OK**		41.000			-	-1.214	-2.734
181	Underground Cables	-4.658	**OK**		60.000			-	-1.542	-3.117
182	Transformers	-2.310	**OK**		35.000			-	-0.786	-1.524
183	Switchgear	-1.903	**OK**		35.000			-	-0.609	-1.294
184	Street lighting	-1.687	**OK**		20.000			-	-0.564	-1.123
185	Meters and Services	-0.651	**OK**		25.000			-	-0.172	-0.479
186	IT&T	-3.985	**OK**		10.158			-	-1.460	-2.525
187	SCADA & Communications	-0.575	**OK**		10.158			-	-0.205	-0.370
188	Other Distribution Non-Network	-0.947	**OK**		10.158			-	-0.308	-0.639
189	Distribution Land & Easements	-	**OK**		-			-	-	-
190	Total Distribution Capex	-20.664	**OK**					-	-6.859	-13.805
191	**Closing Value**									
192	Wooden Pole Lines						-	49.757	110.889	177.686
193	Underground Cables						-	92.512	185.452	282.934
194	Transformers						-	27.501	52.551	76.669
195	Switchgear						-	21.320	44.680	68.560
196	Street lighting						-	11.281	21.904	33.031
197	Meters and Services						-	4.291	11.806	20.591
198	IT&T						-	14.829	24.186	33.705
199	SCADA & Communications						-	2.083	3.557	4.947
200	Other Distribution Non-Network						-	3.133	6.182	9.063
201	Distribution Land & Easements						-	-	-	-
202	Total Distribution Capex						-	226.706	461.206	707.185

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Ref	2	3	8	9	10	11	12	13
Year ending 30 June			**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Project Year			**-2**	**-1**	**0**	**1**	**2**	**3**
5	**WPC's Inflation**							
6		June CPI	144.8	148.4	152.2	156.2	160.2	164.3
7		Annual Inflation		2.49%	2.58%	2.58%	2.58%	2.58%
8		Inflation Factor			1.000	1.026	1.052	1.079
9	**ERA's Inflation**							
10		June CPI	144.8	148.4	152.8	157.3	161.9	166.7
11		Annual Inflation		2.49%	2.95%	2.95%	2.95%	2.95%
12		Inflation Factor			1.000	1.030	1.060	1.091
13	**Pre-tax WACC**							
14		Real			6.00%	6.00%	6.00%	6.00%
15		Real Discount Factor			1.000	1.060	1.124	1.191
16		Nominal			9.13%	9.13%	9.13%	9.13%
17		Nominal Discount Factor			1.000	1.091	1.191	1.300
18								
Distribution, Real Calculations [m$ 30/06/06]								
Year ending 30 June			**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Project Year			**-2**	**-1**	**0**	**1**	**2**	**3**
Asset Value [m$ 30/06/06]								
23	**Asset Value**							
24		Opening Asset Value				1,480.700	1,613.819	1,758.577
25		Adjusted Opening Asset Value						
26		Capex				226.706	241.360	259.784
27		Asst Disposal				-3.817	-3.721	-3.627
28		Depreciation				-89.771	-92.881	-98.663
29		Closing Asset Value			1,480.700	1,613.819	1,758.577	1,916.072
30	**Asset & Working Capital Value**							
31		Opening Asset Value				1,480.700	1,613.819	1,758.577
32		Opening Working Capital				-	-	-
33		Regulatory Opening Asset Value				1,480.700	1,613.819	1,758.577
34								

	Year ending 30 June	2004	2005	2006	2007	2008	2009
	Project Year	-2	-1	0	1	2	3
	Cost of Service [m$ 30/06/06]						
38	**Gross Cost of Service**	**PV**					
39	Opex	**383.211**			144.165	142.009	143.898
40	Depreciation	**250.192**			89.771	92.881	98.663
41	Redundant Assets (Accelerated Depreciation)	**-**			-	-	-
42	Return on Assets	**258.583**			88.842	96.829	105.515
43	Return on Working Capital	**-**			-	-	-
44	Cost of Service	**891.986**			322.777	331.719	348.076
45	**Gross Regulatory Revenue**	**PV**					
46	Opex	**383.211**			144.165	142.009	143.898
47	Capex	**646.803**			226.706	241.360	259.784
48	Asset Disposal	**-9.957**			-3.817	-3.721	-3.627
49	Asset Opening Value	**1,480.700**		1,480.700	-	-	-
50	Asset Residual Value	**-1,608.771**			-	-	-1,916.072
51	Working Capital Variation	**-**		-	-	-	-
52	Gross Regulatory Revenue	**891.986**		1,480.700	367.054	379.648	-1,516.016
53	**Check**	**OK**					
54	**Net Regulatory Revenue**	**PV**					
55	Gross CoS	**891.986**			322.777	331.719	348.076
56	Miscellaneous Revenue	**-16.208**			-6.213	-6.056	-5.904
57	Tariff Equalisation	**152.598**			58.491	57.020	55.586
58	Capital Contribution	**-235.779**			-88.372	-87.847	-88.404
59	Net Regulatory Revenue	**792.597**			286.683	294.835	309.353
60							

	Year ending 30 June	2004	2005	2006	2007	2008	2009
	Project Year	-2	-1	0	1	2	3
	Smoothed Cost of Service [m$ 30/06/06]						
64	**Net Revenue Requirements**	**PV**					
65	Net Cost of Service	**792.597**			286.683	294.835	309.353
66	Smoothed Allowable Annual Regulatory Revenue	**792.597**			296.518	296.518	296.518
67	Delta PV	**0.000**			-9.835	-1.683	12.834
68	**Net Cash Flow**	**PV**					
69	Revenue	**792.597**			296.518	296.518	296.518
70	Opex	**-383.211**			-144.165	-142.009	-143.898
71	Capex	**-646.803**			-226.706	-241.360	-259.784
72	Asset Disposal	**9.957**			3.817	3.721	3.627
73	Miscellaneous Revenue	**16.208**			6.213	6.056	5.904
74	Tariff Equalisation	**-152.598**			-58.491	-57.020	-55.586
75	Capital Contribution	**235.779**			88.372	87.847	88.404
76	Asset Opening Value	**-1,480.700**		-1,480.700	-	-	-
77	Asset Residual Value	**1,608.771**			-	-	1,916.072
78	Working Capital Variation	**-**		-	-	-	-
79	Net Cash Flow	**-**		-1,480.700	-34.442	-46.246	1,851.258
80	**Check**	**OK**					
81	**Internal Rate of Return**						
82	IRR	6.00%					
83	**Check**	**OK**					
84	**Nominal from Real**	**PV**					
85	Net Cash Flow	**-**		-1,480.700	-35.459	-49.018	2,020.166
86	**Internal Rate of Return**						
87	IRR	9.13%					
88	**Check**	**OK**					

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Ref	2	3	4	5	6	8	9	10	11	12	13
Year ending 30 June						**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Project Year						**-2**	**-1**	**0**	**1**	**2**	**3**
5	**WPC's Inflation**										
6	June CPI					144.8	148.4	152.2	156.2	160.2	164.3
7	Annual Inflation						2.49%	2.58%	2.58%	2.58%	2.58%
8	Inflation Factor							1.000	1.026	1.052	1.079
9	**ERA's Inflation**										
10	June CPI					144.8	148.4	152.8	157.3	161.9	166.7
11	Annual Inflation						2.49%	2.95%	2.95%	2.95%	2.95%
12	Inflation Factor							1.000	1.030	1.060	1.091
13	**Pre-tax WACC**										
14	Real							6.00%	6.00%	6.00%	6.00%
15	Real Discount Factor							1.000	1.060	1.124	1.191
16	Nominal							9.13%	9.13%	9.13%	9.13%
17	Nominal Discount Factor							1.000	1.091	1.191	1.300
18											

ICB											
Year ending 30 June											
Project Year											
ICB [m$ 30/06/2006]		**Life as at 30 June 2006 [Years]**									
23	**Transmission**	**WPC**	**ERA**	**Modelled**					**WPC**	**ERA**	**Modelled**
24	Transmission cables	**38.173**	38.173	38.173					**12.028**	12.028	12.028
25	Transmission steel towers	**41.096**	41.096	41.096					**353.923**	353.923	353.923
26	Transmission wood poles	**20.888**	20.888	20.888					**172.407**	172.407	172.407
27	Transmission Metering	**25.969**	25.969	25.969					**2.112**	2.112	2.112
28	Transmission transformers	**25.586**	25.586	25.586					**154.404**	154.404	154.404
29	Transmission reactors	**27.002**	27.002	27.002					**3.914**	3.914	3.914
30	Transmission capacitors	**23.061**	23.061	23.061					**75.809**	75.809	75.809
31	Transmission circuit breakers	**28.268**	28.268	28.268					**453.225**	453.225	453.225
32	SCADA and Communications	**11.176**	11.176	11.176					**32.709**	32.709	32.709
33	IT&T	**3.379**	3.379	3.379					**4.167**	4.167	4.167
34	Other Non-Network Assets	**9.773**	9.773	9.773					**19.915**	19.915	19.915
35	Land & Easements		-	-					**86.784**	86.784	86.784
36	Total Transmission								1,371.397	1,371.397	1,371.397
37											

	Capex								
	Year ending 30 June			2004	2005	2006	2007	2008	2009
	Project Year			-2	-1	0	1	2	3
	WPC's Capex [m$ OD]		Life as at 30 June 2006 [Years]						
42	Transmission	WPC	ERA	Modelled					
43	Transmission cables	55.000	55.000	55.000			6.559	9.039	0.468
44	Transmission steel towers	60.000	60.000	60.000			53.633	35.290	47.087
45	Transmission wood poles	45.000	45.000	45.000			3.742	8.325	25.990
46	Transmission Metering	40.000	40.000	40.000			-	-	-
47	Transmission transformers	50.000	50.000	50.000			26.318	23.049	27.029
48	Transmission reactors	50.000	50.000	50.000			0.250	-	-
49	Transmission capacitors	40.000	40.000	40.000			4.935	3.331	3.116
50	Transmission circuit breakers	50.000	50.000	50.000			48.409	42.821	44.441
51	SCADA and Communications	34.152	34.152	34.152			4.083	2.220	4.292
52	IT&T	16.846	16.846	16.846			5.800	4.200	4.800
53	Other Non-Network Assets	16.846	16.846	16.846			4.590	4.171	4.106
54	Land & Easements		-	-			20.657	32.624	9.461
55	Total Transmission						178.976	165.070	170.791
	Capex Adjustment [m$ OD]		Life as at 30 June 2006 [Years]						
57	Transmission								
58	Transmission cables			55.000			-	-	-
59	Transmission steel towers			60.000			-	-	-
60	Transmission wood poles			45.000			-	-	-
61	Transmission Metering			40.000			-	-	-
62	Transmission transformers			50.000			-	-	-
63	Transmission reactors			50.000			-	-	-
64	Transmission capacitors			40.000			-	-	-
65	Transmission circuit breakers			50.000			-	-	-
66	SCADA and Communications			34.152			-	-	-
67	IT&T			16.846			-	-	-
68	Other Non-Network Assets			16.846			-	-	-
69	Land & Easements			-			-	-	-
70	Total Transmission						-	-	-
	Approved Capex [m$ OD]		Life as at 30 June 2006 [Years]						
72	Transmission								
73	Transmission cables			55.000			6.559	9.039	0.468
74	Transmission steel towers			60.000			53.633	35.290	47.087
75	Transmission wood poles			45.000			3.742	8.325	25.990
76	Transmission Metering			40.000			-	-	-
77	Transmission transformers			50.000			26.318	23.049	27.029
78	Transmission reactors			50.000			0.250	-	-
79	Transmission capacitors			40.000			4.935	3.331	3.116
80	Transmission circuit breakers			50.000			48.409	42.821	44.441
81	SCADA and Communications			34.152			4.083	2.220	4.292
82	IT&T			16.846			5.800	4.200	4.800
83	Other Non-Network Assets			16.846			4.590	4.171	4.106
84	Land & Easements			-			20.657	32.624	9.461
85	Total Transmission						178.976	165.070	170.791
	Modelled Capex [m$ 30/06/06]		Life as at 30 June 2006 [Years]						
87	Transmission								
88	Transmission cables			55.000			6.394	8.590	0.434
89	Transmission steel towers			60.000			52.284	33.537	43.623
90	Transmission wood poles			45.000			3.648	7.911	24.078
91	Transmission Metering			40.000			-	-	-
92	Transmission transformers			50.000			25.657	21.904	25.040
93	Transmission reactors			50.000			0.244	-	-
94	Transmission capacitors			40.000			4.811	3.165	2.887
95	Transmission circuit breakers			50.000			47.191	40.695	41.171
96	SCADA and Communications			34.152			3.980	2.110	3.977
97	IT&T			16.846			5.654	3.991	4.447
98	Other Non-Network Assets			16.846			4.475	3.964	3.804
99	Land & Easements			-			20.137	31.004	8.765
100	Total Transmission						174.474	156.871	158.226
	Modelled Capex [m$ OD]		Life as at 30 June 2006 [Years]						
102	Transmission								
103	Transmission cables			55.000			6.583	9.105	0.474
104	Transmission steel towers			60.000			53.828	35.547	47.603
105	Transmission wood poles			45.000			3.756	8.385	26.275
106	Transmission Metering			40.000			-	-	-
107	Transmission transformers			50.000			26.414	23.217	27.325
108	Transmission reactors			50.000			0.251	-	-
109	Transmission capacitors			40.000			4.953	3.355	3.150
110	Transmission circuit breakers			50.000			48.585	43.134	44.928
111	SCADA and Communications			34.152			4.098	2.237	4.339
112	IT&T			16.846			5.821	4.231	4.853
113	Other Non-Network Assets			16.846			4.607	4.201	4.151
114	Land & Easements			-			20.732	32.862	9.565
115	Total Transmission						179.627	166.274	172.662
116									

Capex Contribution										
Year ending 30 June				2004	2005	2006	2007	2008	2009
Project Year				-2	-1	0	1	2	3
WPC's Capex Contribution [m$ OD]			Life as at 30 June 2006 [Years]						
121	Transmission	WPC	ERA	Modelled					
122	Transmission cables	55.000	55.000	55.000			1.800	0.200	
123	Transmission steel towers	60.000	60.000	60.000			2.125	0.045	
124	Transmission wood poles	45.000	45.000	45.000					
125	Transmission Metering	40.000	40.000	40.000					
126	Transmission transformers	50.000	50.000	50.000			0.210	-	
127	Transmission reactors	50.000	50.000	50.000					
128	Transmission capacitors	40.000	40.000	40.000					
129	Transmission circuit breakers	50.000	50.000	50.000			9.740	2.440	
130	SCADA and Communications	34.152	34.152	34.152					
131	IT&T	16.846	16.846	16.846					
132	Other Non-Network Assets	16.846	16.846	16.846			-	-	-
133	Land & Easements		-	-			0.125	0.015	
134	Total Transmission						14.000	2.700	-
Capex Contribution Adjustment [m$ OD]			Life as at 30 June 2006 [Years]						
136	Transmission								
137	Transmission cables			55.000			-	-	-
138	Transmission steel towers			60.000			-	-	-
139	Transmission wood poles			45.000			-	-	-
140	Transmission Metering			40.000			-	-	-
141	Transmission transformers			50.000			-	-	-
142	Transmission reactors			50.000			-	-	-
143	Transmission capacitors			40.000			-	-	-
144	Transmission circuit breakers			50.000			-	-	-
145	SCADA and Communications			34.152			-	-	-
146	IT&T			16.846			-	-	-
147	Other Non-Network Assets			16.846			-	-	-
148	Land & Easements			-			-	-	-
149	Total Transmission						-	-	-
Approved Capex Contribution [m$ OD]			Life as at 30 June 2006 [Years]						
151	Transmission								
152	Transmission cables			55.000			1.800	0.200	-
153	Transmission steel towers			60.000			2.125	0.045	-
154	Transmission wood poles			45.000			-	-	-
155	Transmission Metering			40.000			-	-	-
156	Transmission transformers			50.000			0.210	-	-
157	Transmission reactors			50.000			-	-	-
158	Transmission capacitors			40.000			-	-	-
159	Transmission circuit breakers			50.000			9.740	2.440	-
160	SCADA and Communications			34.152			-	-	-
161	IT&T			16.846			-	-	-
162	Other Non-Network Assets			16.846			-	-	-
163	Land & Easements			-			0.125	0.015	-
164	Total Transmission						14.000	2.700	-
Modelled Capex Contribution [m$ 30/06/06]			Life as at 30 June 2006 [Years]						
166	Transmission								
167	Transmission cables			55.000			1.755	0.190	-
168	Transmission steel towers			60.000			2.072	0.043	-
169	Transmission wood poles			45.000			-	-	-
170	Transmission Metering			40.000			-	-	-
171	Transmission transformers			50.000			0.205	-	-
172	Transmission reactors			50.000			-	-	-
173	Transmission capacitors			40.000			-	-	-
174	Transmission circuit breakers			50.000			9.495	2.319	-
175	SCADA and Communications			34.152			-	-	-
176	IT&T			16.846			-	-	-
177	Other Non-Network Assets			16.846			-	-	-
178	Land & Easements			-			0.122	0.014	-
179	Total Transmission						13.648	2.566	-
Modelled Capex Contribution [m$ OD]			Life as at 30 June 2006 [Years]						
181	Transmission								
182	Transmission cables			55.000			1.807	0.201	-
183	Transmission steel towers			60.000			2.133	0.045	-
184	Transmission wood poles			45.000			-	-	-
185	Transmission Metering			40.000			-	-	-
186	Transmission transformers			50.000			0.211	-	-
187	Transmission reactors			50.000			-	-	-
188	Transmission capacitors			40.000			-	-	-
189	Transmission circuit breakers			50.000			9.775	2.458	-
190	SCADA and Communications			34.152			-	-	-
191	IT&T			16.846			-	-	-
192	Other Non-Network Assets			16.846			-	-	-
193	Land & Easements			-			0.125	0.015	-
194	Total Transmission						14.051	2.720	-
195									

Asset Disposal							
Year ending 30 June		2004	2005	2006	2007	2008	2009
Project Year		-2	-1	0	1	2	3
Asset Disposal [m$ OD]							
200	Transmission						
201	Transmission cables				-	-	-
202	Transmission steel towers				-	-	-
203	Transmission wood poles				-	-	-
204	Transmission Metering				-	-	-
205	Transmission transformers				-	-	-
206	Transmission reactors				-	-	-
207	Transmission capacitors				-	-	-
208	Transmission circuit breakers (and Site)				-	-	-
209	SCADA and Communications				-	-	-
210	IT&T				-	-	-
211	Other Non-Network Assets				-	-	-
212	Land & Easements				-	-	-
213	Total Transmission				-	-	-
Asset Disposal [m$ OD]							
215	Transmission						
216	Transmission cables				-	-	-
217	Transmission steel towers				-	-	-
218	Transmission wood poles				-	-	-
219	Transmission Metering				-	-	-
220	Transmission transformers				-	-	-
221	Transmission reactors				-	-	-
222	Transmission capacitors				-	-	-
223	Transmission circuit breakers (and Site)				-	-	-
224	SCADA and Communications				-	-	-
225	IT&T				-	-	-
226	Other Non-Network Assets				-	-	-
227	Land & Easements				-	-	-
228	Total Transmission				-	-	-
Asset Disposal [m$ OD]							
230	Transmission						
231	Transmission cables				-	-	-
232	Transmission steel towers				-	-	-
233	Transmission wood poles				-	-	-
234	Transmission Metering				-	-	-
235	Transmission transformers				-	-	-
236	Transmission reactors				-	-	-
237	Transmission capacitors				-	-	-
238	Transmission circuit breakers (and Site)				-	-	-
239	SCADA and Communications				-	-	-
240	IT&T				-	-	-
241	Other Non-Network Assets				-	-	-
242	Land & Easements				-	-	-
243	Total Transmission				-	-	-
Asset Disposal [m$ 30/06/06]							
245	Transmission						
246	Transmission cables				-	-	-
247	Transmission steel towers				-	-	-
248	Transmission wood poles				-	-	-
249	Transmission Metering				-	-	-
250	Transmission transformers				-	-	-
251	Transmission reactors				-	-	-
252	Transmission capacitors				-	-	-
253	Transmission circuit breakers (and Site)				-	-	-
254	SCADA and Communications				-	-	-
255	IT&T				-	-	-
256	Other Non-Network Assets				-	-	-
257	Land & Easements				-	-	-
258	Total Transmission				-	-	-
Asset Disposal [m$ OD]							
260	Transmission						
261	Transmission cables				-	-	-
262	Transmission steel towers				-	-	-
263	Transmission wood poles				-	-	-
264	Transmission Metering				-	-	-
265	Transmission transformers				-	-	-
266	Transmission reactors				-	-	-
267	Transmission capacitors				-	-	-
268	Transmission circuit breakers (and Site)				-	-	-
269	SCADA and Communications				-	-	-
270	IT&T				-	-	-
271	Other Non-Network Assets				-	-	-
272	Land & Easements				-	-	-
273	Total Transmission				-	-	-
274							

Opex							
	Year ending 30 June	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
	Project Year	**-2**	**-1**	**0**	**1**	**2**	**3**
	WPC's Opex [m$ OD]						
279	**Transmission**						
280	Maintenance Strategy				**4.005**	**4.110**	**4.233**
281	Preventative Condition				**5.968**	**6.078**	**6.223**
282	Preventative Routine				**8.135**	**8.299**	**8.512**
283	Corrective Deferred				**2.122**	**1.902**	**1.859**
284	Corrective Emergency				**0.978**	**0.901**	**0.877**
285	SCADA & Communications				**5.409**	**5.566**	**5.719**
286	Network Operations				**12.138**	**13.260**	**13.200**
287	IT&T				**6.570**	**7.280**	**7.820**
288	Network Support				**31.575**	**35.505**	**40.557**
289	Total Distribution Opex				76.900	82.900	89.000
	Opex Adjustment [m$ OD]						
291	**Transmission**						
292	Maintenance Strategy				**-**	**-**	**-**
293	Preventative Condition				**-**	**-**	**-**
294	Preventative Routine				**-**	**-**	**-**
295	Corrective Deferred				**-**	**-**	**-**
296	Corrective Emergency				**-**	**-**	**-**
297	SCADA & Communications				**-**	**-**	**-**
298	Network Operations				**-2.100**	**-2.300**	**-2.300**
299	IT&T				**-**	**-**	**-**
300	Network Support				**-2.500**	**-5.500**	**-9.700**
301	Total Distribution Opex				-4.600	-7.800	-12.000
	Approved Opex [m$ OD]						
303	**Transmission**						
304	Maintenance Strategy				4.005	4.110	4.233
305	Preventative Condition				5.968	6.078	6.223
306	Preventative Routine				8.135	8.299	8.512
307	Corrective Deferred				2.122	1.902	1.859
308	Corrective Emergency				0.978	0.901	0.877
309	SCADA & Communications				5.409	5.566	5.719
310	Network Operations				10.038	10.960	10.900
311	IT&T				6.570	7.280	7.820
312	Network Support				29.075	30.005	30.857
313	Total Distribution Opex				72.300	75.100	77.000
	Modelled Opex [m$ 30/06/06]						
315	**Transmission**						
316	Maintenance Strategy				3.904	3.906	3.921
317	Preventative Condition				5.818	5.776	5.765
318	Preventative Routine				7.930	7.887	7.886
319	Corrective Deferred				2.068	1.807	1.723
320	Corrective Emergency				0.954	0.856	0.813
321	SCADA & Communications				5.273	5.290	5.298
322	Network Operations				9.786	10.416	10.098
323	IT&T				6.405	6.918	7.245
324	Network Support				28.344	28.515	28.587
325	Total Distribution Opex				70.482	71.370	71.335
	Modelled Opex [m$ OD]						
327	**Transmission**						
328	Maintenance Strategy				4.020	4.140	4.279
329	Preventative Condition				5.990	6.122	6.291
330	Preventative Routine				8.164	8.359	8.605
331	Corrective Deferred				2.129	1.915	1.880
332	Corrective Emergency				0.982	0.907	0.887
333	SCADA & Communications				5.429	5.607	5.781
334	Network Operations				10.075	11.040	11.019
335	IT&T				6.594	7.333	7.906
336	Network Support				29.181	30.224	31.195
337	Total Distribution Opex				72.563	75.648	77.844
338							
	Other Inputs						
	Year ending 30 June	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
	Project Year	**-2**	**-1**	**0**	**1**	**2**	**3**
	Working Capital						
343	Proposed Value [m$ OD]			**3.483**	**8.820**	**14.452**	**18.019**
344	Adjustment [m$ OD]			**-3.483**	**-8.820**	**-14.452**	**-18.019**
345	Approved Value [m$ OD]			-	-	-0.000	0.000
346	Modelled Real [m$ 30/06/2005]			-	-	-0.000	0.000
347	Modelled Nominal [m$ OD]			-	-	-0.000	0.000
348							
	Year ending 30 June	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
	Project Year	**-2**	**-1**	**0**	**1**	**2**	**3**
	Tariff Equalisation						
352	Proposed Value [m$ OD]				**-**	**-**	**-**
353	Adjustment [m$ OD]				**-**	**-**	**-**
354	Approved Value [m$ OD]				-	-	-
355	Modelled Real [m$ 30/06/2005]				-	-	-
356	Nominal Value [m$ OD]				-	-	-
357							
	Year ending 30 June	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
	Project Year	**-2**	**-1**	**0**	**1**	**2**	**3**
	Miscellaneous Services						
361	Proposed Value [m$ OD]				**-**	**-**	**-**
362	Adjustment [m$ OD]				**-**	**-**	**-**
363	Approved Value [m$ OD]				-	-	-
364	Modelled Real [m$ 30/06/2005]				-	-	-
365	Nominal Value [m$ OD]				-	-	-
366							
	Year ending 30 June	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
	Project Year	**-2**	**-1**	**0**	**1**	**2**	**3**
	WPC's Expected Revenue						
370	AAI's Value [m$ OD]				**225.300**	**247.500**	**271.000**
371	Modelled Real [m$ 30/06/2005]				219.633	235.207	251.062
372	Nominal Value [m$ OD]				226.120	249.304	273.969

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Ref	2	3	4	5	8	9	10	11	12	13
Year ending 30 June					**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Project Year					**-2**	**-1**	**0**	**1**	**2**	**3**
5	**WPC's Inflation**									
6	June CPI				144.8	148.4	152.2	156.2	160.2	164.3
7	Annual Inflation					2.49%	2.58%	2.58%	2.58%	2.58%
8	Inflation Factor						1.000	1.026	1.052	1.079
9	**ERA's Inflation**									
10	June CPI				144.8	148.4	152.8	157.3	161.9	166.7
11	Annual Inflation					2.49%	2.95%	2.95%	2.95%	2.95%
12	Inflation Factor						1.000	1.030	1.060	1.091
13	**Pre-tax WACC**									
14	Real						6.00%	6.00%	6.00%	6.00%
15	Real Discount Factor						1.000	1.060	1.124	1.191
16	Nominal						9.13%	9.13%	9.13%	9.13%
17	Nominal Discount Factor						1.000	1.091	1.191	1.300
18										
Transmission, Real Calculations [m$ 30/06/06]										
Year ending 30 June					**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Project Year					**-2**	**-1**	**0**	**1**	**2**	**3**
Asset Value [m$ 30/06/06]										
23	**Asset Value**									
24	Opening Asset Value							1,371.397	1,496.910	1,601.452
25	Adjusted Opening Asset Value									
26	Capex							174.474	156.871	158.226
27	Asset Disposal							-	-	-
28	Depreciation							-48.961	-52.329	-55.085
29	Closing Asset Value						1,371.397	1,496.910	1,601.452	1,704.592
30	**Check**		**OK**							
31	**Asset & Working Capital Value**									
32	Opening Asset Value							1,371.397	1,496.910	1,601.452
33	Opening Working Capital							-	-0.000	0.000
34	Regulatory Opening Asset Value							1,371.397	1,496.910	1,601.452
35										

	Year ending 30 June	2004	2005	2006	2007	2008	2009
	Project Year	-2	-1	0	1	2	3
	Asset Account [m$ 30/06/06]						
39	**Opening Value**						
40	Transmission cables				12.028	18.107	26.265
41	Transmission steel towers				353.923	397.595	421.649
42	Transmission wood poles				172.407	167.801	167.377
43	Transmission Metering				2.112	2.031	1.949
44	Transmission transformers				154.404	174.026	189.382
45	Transmission reactors				3.914	4.013	3.863
46	Transmission capacitors				75.809	77.333	77.091
47	Transmission circuit breakers				453.225	484.382	508.100
48	SCADA and Communications				32.709	33.762	32.829
49	IT&T				4.167	8.588	11.011
50	Other Non-Network Assets				19.915	22.352	24.012
51	Land & Easements				86.784	106.921	137.925
52	Total Distribution Capex				1,371.397	1,496.910	1,601.452
53	**Capex**						
54	Transmission cables				6.394	8.590	0.434
55	Transmission steel towers				52.284	33.537	43.623
56	Transmission wood poles				3.648	7.911	24.078
57	Transmission Metering				-	-	-
58	Transmission transformers				25.657	21.904	25.040
59	Transmission reactors				0.244	-	-
60	Transmission capacitors				4.811	3.165	2.887
61	Transmission circuit breakers				47.191	40.695	41.171
62	SCADA and Communications				3.980	2.110	3.977
63	IT&T				5.654	3.991	4.447
64	Other Non-Network Assets				4.475	3.964	3.804
65	Land & Easements				20.137	31.004	8.765
66	Total Distribution Capex				174.474	156.871	158.226
67	**Asset Disposal**						
68	Transmission cables				-	-	-
69	Transmission steel towers				-	-	-
70	Transmission wood poles				-	-	-
71	Transmission Metering				-	-	-
72	Transmission transformers				-	-	-
73	Transmission reactors				-	-	-
74	Transmission capacitors				-	-	-
75	Transmission circuit breakers				-	-	-
76	SCADA and Communications				-	-	-
77	IT&T				-	-	-
78	Other Non-Network Assets				-	-	-
79	Land & Easements				-	-	-
80	Total Distribution Capex				-	-	-
81	**Depreciation**						
82	Transmission cables				-0.315	-0.431	-0.588
83	Transmission steel towers				-8.612	-9.484	-10.043
84	Transmission wood poles				-8.254	-8.335	-8.511
85	Transmission Metering				-0.081	-0.081	-0.081
86	Transmission transformers				-6.035	-6.548	-6.986
87	Transmission reactors				-0.145	-0.150	-0.150
88	Transmission capacitors				-3.287	-3.408	-3.487
89	Transmission circuit breakers				-16.033	-16.977	-17.791
90	SCADA and Communications				-2.927	-3.043	-3.105
91	IT&T				-1.233	-1.569	-1.806
92	Other Non-Network Assets				-2.038	-2.303	-2.539
93	Land & Easements				-	-	-
94	Total Distribution Capex				-48.961	-52.329	-55.085
95	**Closing Value**						
96	Transmission cables			12.028	18.107	26.265	26.112
97	Transmission steel towers			353.923	397.595	421.649	455.229
98	Transmission wood poles			172.407	167.801	167.377	182.944
99	Transmission Metering			2.112	2.031	1.949	1.868
100	Transmission transformers			154.404	174.026	189.382	207.436
101	Transmission reactors			3.914	4.013	3.863	3.713
102	Transmission capacitors			75.809	77.333	77.091	76.490
103	Transmission circuit breakers			453.225	484.382	508.100	531.480
104	SCADA and Communications			32.709	33.762	32.829	33.700
105	IT&T			4.167	8.588	11.011	13.652
106	Other Non-Network Assets			19.915	22.352	24.012	25.278
107	Land & Easements			86.784	106.921	137.925	146.690
108	Total Distribution Capex			1,371.397	1,496.910	1,601.452	1,704.592
109							

	Year ending 30 June			**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
	Project Year			**-2**	**-1**	**0**	**1**	**2**	**3**
	ICB [m$ 30/06/06]		**Life as at 30 June 2006 [Years]**						
113	**Opening Value**								
114	Transmission cables						12.028	11.713	11.398
115	Transmission steel towers						353.923	345.311	336.699
116	Transmission wood poles						172.407	164.153	155.899
117	Transmission Metering						2.112	2.031	1.949
118	Transmission transformers						154.404	148.369	142.334
119	Transmission reactors						3.914	3.769	3.624
120	Transmission capacitors						75.809	72.521	69.234
121	Transmission circuit breakers						453.225	437.191	421.158
122	SCADA and Communications						32.709	29.782	26.855
123	IT&T						4.167	2.934	1.701
124	Other Non-Network Assets						19.915	17.878	15.840
125	Land & Easements						86.784	86.784	86.784
126	Total Distribution Capex						1,371.397	1,322.436	1,273.475
127	**Asset Disposal**								
128	Transmission cables								
129	Transmission steel towers						-	-	-
130	Transmission wood poles						-	-	-
131	Transmission Metering						-	-	-
132	Transmission transformers						-	-	-
133	Transmission reactors						-	-	-
134	Transmission capacitors						-	-	-
135	Transmission circuit breakers						-	-	-
136	SCADA and Communications						-	-	-
137	IT&T						-	-	-
138	Other Non-Network Assets						-	-	-
139	Land & Easements						-	-	-
140	Total Distribution Capex						-	-	-
141	**Depreciation**	**Total**	**Check**						
142	Transmission cables	-0.945	**OK**	38.173			-0.315	-0.315	-0.315
143	Transmission steel towers	-25.836	**OK**	41.096			-8.612	-8.612	-8.612
144	Transmission wood poles	-24.762	**OK**	20.888			-8.254	-8.254	-8.254
145	Transmission Metering	-0.244	**OK**	25.969			-0.081	-0.081	-0.081
146	Transmission transformers	-18.104	**OK**	25.586			-6.035	-6.035	-6.035
147	Transmission reactors	-0.435	**OK**	27.002			-0.145	-0.145	-0.145
148	Transmission capacitors	-9.862	**OK**	23.061			-3.287	-3.287	-3.287
149	Transmission circuit breakers	-48.100	**OK**	28.268			-16.033	-16.033	-16.033
150	SCADA and Communications	-8.780	**OK**	11.176			-2.927	-2.927	-2.927
151	IT&T	-3.700	**OK**	3.379			-1.233	-1.233	-1.233
152	Other Non-Network Assets	-6.113	**OK**	9.773			-2.038	-2.038	-2.038
153	Land & Easements	-	**OK**	-			-	-	-
154	Total Distribution Capex	-146.882	**OK**				-48.961	-48.961	-48.961
155	**Closing Value**								
156	Transmission cables					12.028	11.713	11.398	11.083
157	Transmission steel towers					353.923	345.311	336.699	328.087
158	Transmission wood poles					172.407	164.153	155.899	147.645
159	Transmission Metering					2.112	2.031	1.949	1.868
160	Transmission transformers					154.404	148.369	142.334	136.300
161	Transmission reactors					3.914	3.769	3.624	3.479
162	Transmission capacitors					75.809	72.521	69.234	65.947
163	Transmission circuit breakers					453.225	437.191	421.158	405.124
164	SCADA and Communications					32.709	29.782	26.855	23.928
165	IT&T					4.167	2.934	1.701	0.468
166	Other Non-Network Assets					19.915	17.878	15.840	13.802
167	Land & Easements					86.784	86.784	86.784	86.784
168	Total Distribution Capex					1,371.397	1,322.436	1,273.475	1,224.514
169									

	Year ending 30 June			2004	2005	2006	2007	2008	2009
	Project Year			-2	-1	0	1	2	3
	CAPEX [m$ 30/06/06]								
173	Opening Value								
174	Transmission cables						-	6.394	14.867
175	Transmission steel towers						-	52.284	84.950
176	Transmission wood poles						-	3.648	11.478
177	Transmission Metering						-	-	-
178	Transmission transformers						-	25.657	47.047
179	Transmission reactors						-	0.244	0.239
180	Transmission capacitors						-	4.811	7.856
181	Transmission circuit breakers						-	47.191	86.942
182	SCADA and Communications						-	3.980	5.974
183	IT&T						-	5.654	9.310
184	Other Non-Network Assets						-	4.475	8.173
185	Land & Easements						-	20.137	51.141
186	Total Distribution Capex						-	174.474	327.977
187	Capex								
188	Transmission cables						6.394	8.590	0.434
189	Transmission steel towers						52.284	33.537	43.623
190	Transmission wood poles						3.648	7.911	24.078
191	Transmission Metering						-	-	-
192	Transmission transformers						25.657	21.904	25.040
193	Transmission reactors						0.244	-	-
194	Transmission capacitors						4.811	3.165	2.887
195	Transmission circuit breakers						47.191	40.695	41.171
196	SCADA and Communications						3.980	2.110	3.977
197	IT&T						5.654	3.991	4.447
198	Other Non-Network Assets						4.475	3.964	3.804
199	Land & Easements						20.137	31.004	8.765
200	Total Distribution Capex						174.474	156.871	158.226
201	Depreciation	Total	Check						
202	Transmission cables	-0.389	OK	55.000			-	-0.116	-0.272
203	Transmission steel towers	-2.302	OK	60.000			-	-0.871	-1.430
204	Transmission wood poles	-0.338	OK	45.000			-	-0.081	-0.257
205	Transmission Metering	-	OK	40.000			-	-	-
206	Transmission transformers	-1.464	OK	50.000			-	-0.513	-0.951
207	Transmission reactors	-0.010	OK	50.000			-	-0.005	-0.005
208	Transmission capacitors	-0.320	OK	40.000			-	-0.120	-0.199
209	Transmission circuit breakers	-2.702	OK	50.000			-	-0.944	-1.758
210	SCADA and Communications	-0.295	OK	34.152			-	-0.117	-0.178
211	IT&T	-0.908	OK	16.846			-	-0.336	-0.573
212	Other Non-Network Assets	-0.767	OK	16.846			-	-0.266	-0.501
213	Land & Easements	-	OK	-			-	-	-
214	Total Distribution Capex	-9.493	OK				-	-3.369	-6.125
215	Closing Value								
216	Transmission cables					-	6.394	14.867	15.029
217	Transmission steel towers					-	52.284	84.950	127.142
218	Transmission wood poles					-	3.648	11.478	35.299
219	Transmission Metering					-	-	-	-
220	Transmission transformers					-	25.657	47.047	71.136
221	Transmission reactors					-	0.244	0.239	0.234
222	Transmission capacitors					-	4.811	7.856	10.544
223	Transmission circuit breakers					-	47.191	86.942	126.355
224	SCADA and Communications					-	3.980	5.974	9.772
225	IT&T					-	5.654	9.310	13.184
226	Other Non-Network Assets					-	4.475	8.173	11.476
227	Land & Easements					-	20.137	51.141	59.906
228	Total Distribution Capex					-	174.474	327.977	480.078

Western Power Draft Decision Real Pre-tax Model

Ref	2	3	8	9	10	11	12	13
Year ending 30 June			**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Project Year			**-2**	**-1**	**0**	**1**	**2**	**3**
5	**WPC's Inflation**							
6		June CPI	144.8	148.4	152.2	156.2	160.2	164.3
7		Annual Inflation		2.49%	2.58%	2.58%	2.58%	2.58%
8		Inflation Factor			1.000	1.026	1.052	1.079
9	**ERA's Inflation**							
10		June CPI	144.8	148.4	152.8	157.3	161.9	166.7
11		Annual Inflation		2.49%	2.95%	2.95%	2.95%	2.95%
12		Inflation Factor			1.000	1.030	1.060	1.091
13	**Pre-tax WACC**							
14		Real			6.00%	6.00%	6.00%	6.00%
15		Real Discount Factor			1.000	1.060	1.124	1.191
16		Nominal			9.13%	9.13%	9.13%	9.13%
17		Nominal Discount Factor			1.000	1.091	1.191	1.300
18								
Transmission, Real Calculations [m$ 30/06/06]								
Year ending 30 June			**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Project Year			**-2**	**-1**	**0**	**1**	**2**	**3**
Asset Value [m$ 30/06/06]								
23	**Asset Value**							
24		Opening Asset Value				1,371.397	1,496.910	1,601.452
25		Adjusted Opening Asset Value						
26		Capex				174.474	156.871	158.226
27		Asst Disposal				-	-	-
28		Depreciation				-48.961	-52.329	-55.085
29		Closing Asset Value			1,371.397	1,496.910	1,601.452	1,704.592
30	**Asset & Working Capital Value**							
31		Opening Asset Value				1,371.397	1,496.910	1,601.452
32		Opening Working Capital				-	-0.000	0.000
33		Regulatory Opening Asset Value				1,371.397	1,496.910	1,601.452
34								

	Year ending 30 June	2004	2005	2006	2007	2008	2009
	Project Year	-2	-1	0	1	2	3
	Cost of Service [m$ 30/06/06]						
38	**Gross Cost of Service**	**PV**					
39	Opex	**189.905**			70.482	71.370	71.335
40	Depreciation	**139.013**			48.961	52.329	55.085
41	Redundant Assets (Accelerated Depreciation)	**-**			-	-	-
42	Return on Assets	**238.238**			82.284	89.815	96.087
43	Return on Working Capital	**0.000**			-	-0.000	0.000
44	Cost of Service	**567.156**			201.726	213.514	222.508
45	**Gross Regulatory Revenue**	**PV**					
46	Opex	**189.905**			70.482	71.370	71.335
47	Capex	**437.063**			174.474	156.871	158.226
48	Asset Disposal	**-**			-	-	-
49	Asset Opening Value	**1,371.397**		1,371.397	-	-	-
50	Asset Residual Value	**-1,431.208**			-	-	-1,704.592
51	Working Capital Variation	**0.000**		-	-0.000	0.000	-0.000
52	Gross Regulatory Revenue	**567.156**		1,371.397	244.956	228.241	-1,475.032
53	**Check**	**OK**					
54	**Net Regulatory Revenue**	**PV**					
55	Gross CoS	**567.156**			201.726	213.514	222.508
56	Miscellaneous Revenue	**-**			-	-	-
57	Tariff Equalisation	**-**			-	-	-
58	Capital Contribution	**-15.159**			-13.648	-2.566	-
59	Net Regulatory Revenue	**551.997**			188.078	210.948	222.508
60							

	Year ending 30 June		**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
	Project Year		**-2**	**-1**	**0**	**1**	**2**	**3**
	Smoothed Cost of Service [m$ 30/06/06]			-				
64	**Net Revenue Requirements**		**PV**					
65		Cost of Service	**551.997**			188.078	210.948	222.508
66		Smoothed Annual Aggregate Revenue	**551.997**			206.507	206.507	206.507
67		Delta PV	**0.000**			-18.429	4.440	16.000
68	**Net Cash Flow**		**PV**					
69		Revenue	**551.997**			206.507	206.507	206.507
70		Opex	**-189.905**			-70.482	-71.370	-71.335
71		Capex	**-437.063**			-174.474	-156.871	-158.226
72		Asset Disposal	**-**			-	-	-
73		Miscellaneous Revenue	**-**			-	-	-
74		Tariff Equalisation	**-**			-	-	-
75		Capital Contribution	**15.159**			13.648	2.566	-
76		Asset Opening Value	**-1,371.397**		-1,371.397	-	-	-
77		Asset Residual Value	**1,431.208**			-	-	1,704.592
78		Working Capital Variation	**-0.000**		-	0.000	-0.000	0.000
79		Net Cash Flow	**-**		-1,371.397	-24.801	-19.168	1,681.539
80		**Check**	**OK**					
81	**Internal Rate of Return**							
82		IRR	6.00%					
83		**Check**	**OK**					
84	**Nominal from Real**		**PV**					
85		Net Cash Flow	**-**		-1,371.397	-25.533	-20.316	1,834.963
86	**Internal Rate of Return**							
87		IRR	9.13%					
88		**Check**	**OK**					