
Proposed Revisions to the Access
Arrangement for the South West
Network owned by Western Power



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1 Introduction

Purpose of this document

- 1.1A. This document incorporates the *proposed revisions* to the current *Access Arrangement* that was approved by the *Authority* on 26 April 2007. These *proposed revisions* have been prepared in accordance with the *Code* and are submitted in accordance with section 4.48 of the *Code*. These *proposed revisions* are lodged by Western Power by 1 October 2008 for review and approval by the *Authority* in accordance with the processes and criteria set out in the *Code*. On approval by the *Authority*, a clean version of this document will be produced, with deleted provisions removed and renumbered. Henceforth this document is referred to as the "Access Arrangement".
- 1.1 This *Access Arrangement* sets out the terms and conditions under which Western Power will provide *users* and *applicants* with access to the South West Interconnected Network (SWIN) from the date specified in section 1.4 of this *Access Arrangement*. The SWIN is the portion of the South West Interconnected System (SWIS) that is owned and operated by Western Power. The SWIN is a *covered network* from the *Code commencement date*, unless *coverage* has subsequently been revoked under section 3.30 of the *Code*.
- 1.2 The *Code* was established by the Minister for Energy for the State of Western Australia, under section 104(1) of the *Electricity Industry Act 2004*, and came into operation on 30 November 2004.
- 1.3 [Deleted]

Proposed Access Arrangement start date

- 1.4 This *Access Arrangement* is effective from 1 July 2009 or a later date as specified by the *Authority* in accordance with section 4.26 of the *Code*.

Revisions submission date and target revisions commencement date

- 1.5 Pursuant to section 5.31(a) of the *Code*, the *revisions submission date* for this *Access Arrangement* is 1 October 2011.
- 1.6 Pursuant to section 5.31(b) of the *Code*, the *target revisions commencement date* for this *Access Arrangement* is 1 July 2012.

Composition of this Access Arrangement

- 1.7 This *Access Arrangement* comprises this document together with:
- (a) the *Applications and Queuing Policy* attached at Appendix 1;
 - (b) the *Transfer and Relocation Policy* attached at Appendix 2;
 - (c) the *Contributions Policy* attached at Appendix 3;
 - (d) the *Standard Access Contract*, termed the *Electricity Transfer Access Contract* attached at Appendix 4;
 - (e) the *price list* attached at Appendix 5, which describes the *reference tariff* payable under an *access contract* for each *reference service*;

- (f) the *price list information* attached at Appendix 6, which explains how Western Power derived the elements of the proposed *price list*, and demonstrates that the *price list* complies with the *Access Arrangement*;
- (g) the details of the *reference services* offered by Western Power attached at Appendix 7; and
- (h) explanatory notes regarding the price control arrangements attached at Appendix 8.

Relationship to technical rules and access arrangement information

- 1.8 The *technical rules* do not form part of this *Access Arrangement*, although the *technical rules* are relevant in determining Western Power's *target revenue*. In accordance with section 12.56 of the Code, the Authority must cause a review of the *technical rules* approximately 6 months before the *target revisions commencement date* in the *first access arrangement* (1 July 2009).
- 1.9 Western Power will submit its revised *access arrangement information* by 1 October 2008, alongside this *Access Arrangement* in accordance with section 4.48 of the Code. The revised *access arrangement information* does not form part of this *Access Arrangement*.

2 Definitions and Interpretation

- 2.1 In sections 1 to 10 of this *Access Arrangement*, where a word or phrase is italicised it has the definition given to that word or phrase in the Code, unless the context requires otherwise.
- 2.2 In each of the Appendices to this *Access Arrangement*, a separate glossary of terms is provided where appropriate, and the definitions contained in those separate glossaries apply to the relevant appendix, unless the context requires otherwise.

3 Reference Services, Non-Reference Services and Service Standard Benchmarks

Purpose

- 3.1 Pursuant to section 5.2 of the Code, this section of the *Access Arrangement* describes the *reference services* offered by Western Power.
- 3.2 Pursuant to section 5.6 of the Code, this section also describes the *service standard benchmarks* applicable to the *reference services*.
- 3.3 This section also provides information in relation to *non-reference services*.

Reference services

- 3.4 *Reference services* are provided to *users* in accordance with the terms and conditions of the Electricity Transfer Access Contract.
- 3.5 Western Power offers 11 *reference services* at *network exit points*:
 - 1. Anytime Energy (Residential) Exit Service A1

- | | | |
|-----|---|-----|
| 2. | Anytime Energy (Business) Exit Service | A2 |
| 3. | Time of Use Energy (Residential) Exit Service | A3 |
| 4. | Time of Use Energy (Business) Exit Service | A4 |
| 5. | High Voltage Metered Demand Exit Service | A5 |
| 6. | Low Voltage Metered Demand Exit Service | A6 |
| 7. | High Voltage Contract Maximum Demand Exit Service | A7 |
| 8. | Low Voltage Contract Maximum Demand Exit Service | A8 |
| 9. | Streetlighting Exit Service | A9 |
| 10. | Un-Metered Supplies Exit Service | A10 |
| 11. | Transmission Exit Service | A11 |
- 3.6 Western Power offers two entry services as *reference services*:
- | | | |
|----|----------------------------|----|
| 1. | Distribution Entry Service | B1 |
| 2. | Transmission Entry Service | B2 |
- 3.7 Appendix 7 of this *Access Arrangement* provides details of each reference service, including:
- a description of the *reference service*;
 - user eligibility criteria;
 - the applicable *reference tariff*;
 - the applicable *standard access contract*; and
 - the applicable *service standard benchmark*.

Price list and price list information

- 3.8 The *price list* in respect of the financial year commencing on 1 July 2009 is attached at Appendix 5.
- 3.9 The *price list* is to be updated annually in accordance with Chapter 8 of the *Code*.
- 3.10 In accordance with section 8.1 of the *Code* this *Access Arrangement* requires Western Power to submit a proposed *price list*, together with *price list information*, to the *Authority* for approval at least 45 *business days* before the start of each *pricing year* (except for the first *pricing year*).

Side constraints on reference tariff movements

- 3.11A To manage the overall price increases in this *access arrangement period*, Western Power has deferred the recovery of some revenue from this *access arrangement period* to the third or subsequent *access arrangement periods*. The deferred revenue amounts are described in sections 5.37A and 5.48A of this *Access Arrangement*.
- 3.11 To constrain tariff rebalancing, for the second and third year of this *access arrangement period*, Western Power will not increase any *reference tariff* component by more than $CPI + Y + 5\%$ or less than $CPI + Y - 5\%$, where Y is the relevant percentage

figure defined in section 5.35 (for transmission) and section 5.46 (for distribution) of this *Access Arrangement*. For the purposes of this side constraint on tariff rebalancing, the CPI is the percentage increase in the Consumer Price Index (weighted average for eight capital cities) published by the Australian Bureau of Statistics for the most recent December quarter compared to the December quarter in the previous year.

Non-reference services

3.12 The table below lists the non-reference services provided by Western Power.

Non Reference Service
Quotation for relocation of Transmission assets at the request of a user
Quotation for relocation of Distribution assets at the request of a user
Electricity Network Planning Studies
Re-inspection of a customer's facilities and equipment by a Western Power Inspector
Rental of properties (including commercial & residential) that are in the capital base
Profit on sale of assets
Establishment and removal of a Temporary Builders Supply
Planning for and providing an escort for movement of high loads
Temporary removal of overhead service lead for work at a customer's premises
Insulate and make safe aerial conductors
Disconnection/Reconnection of overhead service leads or underground consumer mains at a customer's request
User Network Switching Services at the request of a user (on Western Power's asset)
Provide expertise to enable work to be undertaken in the vicinity of power lines
Services fees for Access Applications & Access Contracts
Costs recovered from asset damage due to a car accident, graffiti or vandalism
Extended metering services provided under the Metering Code Service Level Agreement
Standby Access Services

Payment by users

3.13 In respect of *reference services*, *users* are required to pay the relevant *reference tariffs* specified in the *price list* in accordance with their *access contract*, unless the parties agree otherwise.

3.14 In respect of *non-reference services*, *users* are required to pay charges for services in accordance with Western Power's published terms and conditions, unless the parties agree otherwise.

Service standard benchmarks

3.15 For the *reference services* A1 to A10 and B1 the *service standard benchmarks* are expressed in terms of System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI).

3.16 SAIDI is defined as follows:

Performance Indicator:	System Average Interruption Duration Index (SAIDI)
Unit of measure:	System minutes per annum
Definition:	Over a 12 month period, the sum of the duration of each sustained (greater than 1 minute) customer interruption (in minutes) attributable solely to distribution (after exclusions) divided by the average of the total number of connected <i>consumers</i> at the beginning and end of the period.
Exclusions:	<ul style="list-style-type: none"> • Major event days in accordance with IEEE1366-2003 definitions as adopted by Steering Committee on National Regulatory Reporting Requirements (SCNRRR). • Outages shown to be caused by a fault or other event on the transmission system or a third party system (for instance, without limitation outages caused by an intertrip signal, generator unavailability or a customer installation). • Planned Outages. • Single Customer Interruptions. • <i>Force majeure</i> events.

3.17 SAIFI is defined as follows:

Performance Indicator:	System Average Interruption Frequency Index (SAIFI)
Unit of measure:	Supply interruptions per annum
Definition:	Over a 12 month period, the total number of sustained (greater than 1 minute) customer interruptions (number) attributable solely to distribution (after exclusions) divided by the average of the total number of connected <i>consumers</i> at the beginning and end of the period.
Exclusions:	<ul style="list-style-type: none"> • Major event days in accordance with IEEE1366-2003 definitions as adopted by Steering Committee on National Regulatory Reporting Requirements (SCNRRR). • Outages shown to be caused by a fault or other event on the transmission system or a third party system (for instance, without limitation outages caused by an intertrip signal, generator unavailability or a customer installation). • Planned Outages. • Single Customer Interruptions. • <i>Force majeure</i> events.

3.18 The service standard benchmarks expressed in terms of SAIDI for the reference services A1 to A10 and B1 for each year of the access arrangement period are shown in the following table:

SAIDI	SWIN total	CBD	Urban	Rural Short	Rural Long
Year ending June 2010	225	38	161	253	599
Year ending June 2011	210	38	150	233	567
Year ending June 2012	201	38	142	222	548

3.19 The *service standard benchmarks* expressed in terms of SAIFI for the *reference services* A1 to A10 and B1 for each year of the *access arrangement period* are shown in the following table:

SAIFI	SWIN total	CBD	Urban	Rural Short	Rural Long
Year ending June 2010	2.44	0.24	1.88	3.05	4.89
Year ending June 2011	2.29	0.24	1.76	2.83	4.64
Year ending June 2012	2.18	0.24	1.67	2.70	4.47

3.20 For the purpose of this *Access Arrangement*, the definitions of CBD, Urban, Rural Short and Rural Long feeder classification are consistent with those applied by the Steering Committee on National Regulatory Reporting Requirements (SCNRRR).

3.21 In respect of the *reference services* A11 and B2 available to *users* directly connected to the transmission network, the *service standard benchmarks* are expressed in terms of Circuit Availability and System Minutes Interrupted as defined below:

Performance Indicator:	Circuit Availability
Unit of measure:	Percentage of total possible hours available.
Source of data:	SCADA and System Operation Databases
Definition/Formula:	Error! Objects cannot be created from editing field codes. Definition: The actual circuit hours available for transmission circuits divided by the total possible defined circuit hours available.
Exclusions:	<ul style="list-style-type: none"> • Non-transmission primary equipment (primary equipment operating at voltages less than 66 kV, including zone substation power transformers) • Unregulated transmission assets. • Outages shown to be caused by a fault or other event on a '3rd party system' e.g. intertrip signal, generator outage, customer installation. • Force majeure events. • Duration of planned outages for major construction work, including periods where availability is temporarily restored, is to be capped at 14 days in calculating transmission line availability.
Inclusions:	<ul style="list-style-type: none"> • 'Circuits' includes primary transmission equipment such as overhead lines, underground cables and bulk transmission power transformers. • Circuit 'unavailability' to include outages from all causes including planned, forced and emergency events, including extreme events, but not including the events defined as exclusions.
Performance Indicator:	System Minutes Interrupted (for both Meshed and Radial Transmission)

	Network)
Unit of measure:	Minutes
Source of data:	SCADA and System Operation Databases
Definition/Formula:	$\sum \frac{\text{MW Minutes of Unserved Energy}}{\text{System Peak MW}}$ <p>(for both Meshed and Radial Transmission Network separately)</p> <p>Definition:</p> <p>System Minutes Interrupted (Meshed)- The summation of MW Minutes of unserved energy at substations which are connected to the meshed transmission network divided by the system peak MW.</p> <p>System Minutes Interrupted (Radial)- The summation of MW Minutes of unserved energy at substations which are connected to the radial transmission network divided by the system peak MW.</p>
Exclusions:	<ul style="list-style-type: none"> • Unregulated transmission assets. • Outages shown to be caused by a fault or other event on a '3rd party system' e.g. intertrip signal, generator outage, customer installation. • Force majeure events.
Inclusions:	<ul style="list-style-type: none"> • All unserved energy due to outages on any primary transmission equipment including all overhead lines, underground cables, power transformers, static var compensators, capacitor banks, etc. including primary zone substation equipment. • All unserved energy due to outages for forced and emergency events, including extreme events, but not including the events defined as exclusions.

3.22 The *service standard benchmarks* for the *reference services* A11 and B2 available to *users* directly connected to the transmission network for each year of the *access arrangement period* are set out in the following table.

	Year ending June 2010	Year ending June 2011	Year ending June 2012
Circuit Availability (% of total time)	98.0	98.0	98.0
System Minutes Interrupted (meshed network)	9.3	9.3	9.3
System Minutes Interrupted (radial network)	1.4	1.4	1.4

3.23 In respect of *reference service* A9 (“Streetlighting Exit Service”), where Western Power is responsible for the repair of faulty streetlights, the following *service standard benchmark* will apply in relation to repair times for reported faults (in addition to the *service standard benchmarks* in section 3.18 and 3.19 of this *Access Arrangement*).

	Year ending June 2010	Year ending June 2011	Year ending June 2012
Perth Metropolitan area	5 days	5 days	5 days
Major regional towns	5 days	5 days	5 days
Remote and rural towns	9 days	9 days	9 days

4 Excluded Services

- 4.1 There are no *excluded services* at the start date of this *Access Arrangement*. In accordance with section 6.35 of the Code, Western Power may at any time request the *Authority* to determine under section 6.33 that one or more *services* provided by Western Power are *excluded services*.

5 Price Control

Form of price control

- 5.1 In accordance with sections 6.1 and 6.2(c) of the *Code*:
- (a) a revenue cap will apply to *reference services* that is set by reference to Western Power's *approved total costs*; and
 - (b) charges for *non-reference services* will be:
 - (i) negotiated in good faith;
 - (ii) consistent with the *Code objective*; and
 - (iii) reasonable.
- 5.2 The calculation of Western Power's *approved total costs* in relation to *reference services* has been undertaken in accordance with the methodology contained in the revenue model. The financial parameters set out in this *Access Arrangement* have been derived using this methodology, which calculates *approved total costs* in accordance with the *Code* requirements.
- 5.3 Explanatory notes to the price control arrangements are set out in Appendix 8 of this *Access Arrangement* should the need for further explanation of these arrangements arise.

Adjusting target revenue for unforeseen events

- 5.4 If a *force majeure event* occurs which results in Western Power incurring *unrecovered costs* during the *access arrangement period* then Western Power will, as part of its proposed *access arrangement* for the next *access arrangement period*, provide a report to the Authority setting out:
- (a) a description of the nature of the *force majeure event*;

- (b) a description of the insurance cover that Western Power had in place at the time of the *force majeure event*; and
 - (c) a fair and reasonable estimate of the *unrecovered costs* borne by Western Power during the *access arrangement period* as a result of the occurrence of the *force majeure event*.
- 5.5 Pursuant to sections 6.6 to 6.8 of the *Code*, an amount will be added to the *target revenue* for the *covered network* for the next *access arrangement period* in respect of the *unrecovered costs* relating to a *force majeure event* which occurred in the *access arrangement period*, calculated in accordance with the methodology described in section 4 of Appendix 8 of this *Access Arrangement*.
- 5.6 For the avoidance of doubt, a *force majeure event* includes but is not limited to any costs arising from the introduction of an emissions trading scheme; full retail contestability; and the roll-out of Advanced Interval Meters to the extent that such costs were not included in the calculation of *target revenue* for the *access arrangement period* or otherwise addressed through the Trigger Event provisions in section 8 of this *Access Arrangement*.

Adjusting target revenue for technical rule changes

- 5.7 If the technical rules are amended during the *access arrangement period*, Western Power will, as part of its proposed *access arrangement* for the next *access arrangement period*, provide a report to the Authority setting out:
- (a) a description of the nature and timing of the impact of the technical rule change on Western Power's operating and capital costs for the *access arrangement period*; and
 - (b) a fair and reasonable estimate of the additional costs (or cost savings) accruing to Western Power as a result of that technical rule change.
- 5.8 Pursuant to sections 6.9 to 6.12 of the *Code*, an amount will be added to the *target revenue* for the *covered network* for the next *access arrangement period* in respect of the costs arising from a technical rule change which occurred in this *access arrangement period*, calculated in accordance with the methodology described in section 5 of Appendix 8 of this *Access Arrangement*.
- 5.9 Pursuant to sections 6.9 to 6.12 of the *Code*, if the technical rule change leads to a cost saving, an amount will be deducted from the *target revenue* for the *covered network* for the next *access arrangement period*, calculated in accordance with the methodology described in section 5 of Appendix 8 of this *Access Arrangement*.
- 5.10 [Deleted]

Investment adjustment mechanism

- 5.11 In accordance with sections 6.13 to 6.18 of the *Code*, an *investment adjustment mechanism* applies in relation to this *Access Arrangement*. The calculation of the *investment adjustment mechanism* is explained in sections 5.49 to 5.53 and in Appendix 8 of this *Access Arrangement*.

Capital contributions adjustment mechanism

- 5.12 [Deleted]

Gain sharing mechanism and efficiency and innovation benchmarks

5.13 In accordance with sections 5.25 and 6.20 of the *Code*, a *gain sharing mechanism* and *efficiency and innovation benchmarks* will apply with respect to this *Access Arrangement*. The operation of the *gain sharing mechanism* and the definition of the *efficiency and innovation benchmarks* are explained in sections 5.14A to 5.14G and in Appendix 8 of this *Access Arrangement*.

5.14 [Deleted]

5.14A In accordance with section 6.21 of the *Code*, this *gain sharing mechanism* has the objectives of:

- (a) achieving an equitable allocation over time between *users* and Western Power of innovation and efficiency gains in excess of *efficiency and innovation benchmarks*;
- (b) being objective, transparent, easy to administer and replicable from one *access arrangement period* to the next; and
- (c) giving Western Power an incentive to reduce costs to efficient sustainable levels, or otherwise improve productivity in a way that is neutral in its effect on the timing of such initiatives.

5.14B In accordance with section 6.23 of the *Code* and subject to section 5.14C of this *Access Arrangement*, a *surplus* arises to the extent that:

- (a) returns actually achieved by the *service provider* from the sale of *covered services* during the previous *access arrangement period*, exceeded
- (b) the level of returns from the sale of *covered services* which at the start of the *access arrangement period* was forecast to occur during the *access arrangement period*.

For the avoidance of doubt, for the purposes of this *Access Arrangement* the operation of the gain sharing mechanism does not require the *surplus* to be calculated. It is noted, however, that an *above benchmark surplus* is calculated in accordance with section 5.14C of this *Access Arrangement*.

5.14C To ensure that the *gain sharing mechanism* is objective, transparent, easy to administer and replicable from one *access arrangement period* to the next, for this *access arrangement* an *above benchmark surplus* only arises in this *access arrangement period* if and only if:

- (a) the approved aggregate forecast operating expenditure for this *access arrangement period* adjusted for inflation, plus any operating expenditure adjustments allowed by the *Authority* in respect of that year (including *trigger events*, the D factor scheme, unforeseen events, or technical rule changes), exceeds
- (b) Western Power's aggregate actual operating expenditure in this *access arrangement period* (which excludes any penalty amount payable under the *service standard adjustment mechanism*).

For the purposes of this access arrangement, (a) is defined as the *efficiency and innovation benchmark*. In calculating the *efficiency and innovation benchmark* for a

particular year, the approved aggregate forecast operating expenditure is the total amount allowed by the *Authority* in its *final decision* or *further final decision* (as appropriate) to *approve Western Power's proposed access arrangement*, or in its own approved *access arrangement* in accordance with section 4.24 of the *Code*.

5.14D The *gain sharing mechanism* will determine the efficiency gain attributed to management effort for this *access arrangement period* to be following amount:

- (a) the value of the *above benchmark surplus* in this *access arrangement period* in accordance with section 5.14C of this *Access Arrangement*, minus
- (b) any aggregate penalty, if any, being the sum of any annual bonuses and penalties incurred by Western Power in respect of the *service standard adjustment mechanism* for this *access arrangement period*.

For the avoidance of doubt, the efficiency gain calculated for this *access arrangement period* cannot be negative.

5.14E An average annual efficiency bonus will be calculated by taking the efficiency gain attributed to management effort in accordance with section 5.14D and dividing this amount by three, being the duration in years of this *access arrangement period*. Western Power's *target revenue* for each of the 5 years following the *target revisions commencement date* will be increased by the average annual efficiency bonus, whether or not this 5 year period spans one or more subsequent *access arrangement periods*.

5.14F For the avoidance of doubt, the *gain sharing mechanism* does not affect the ordinary operation of the revenue cap (absent the *gain sharing mechanism*), which already provides for Western Power to retain 100% of any efficiency gains achieved during the *access arrangement period*. This characteristic is consistent with section 6.24 of the *Code* which ensures that such prior *surpluses* are retained by the *service provider*.

5.14G A numerical example illustrating the operation of the *gain sharing mechanism* is set out in section 3 of Appendix 8 of this *Access Arrangement*.

Service standards adjustment mechanism (“SSAM”)

5.15 In accordance with section 6.30 of the *Code*, a *service standards adjustment mechanism* applies in relation to this *Access Arrangement*.

5.16 In accordance with section 6.29 of the *Code*, Western Power's performance during this *access arrangement period* will be measured against each of the *service standard benchmarks* described in sections 3.15 to 3.23 of this *Access Arrangement*, as appropriate.

5.17 [Deleted]

5.18 [Deleted]

5.19 [Deleted]

5.20 [Deleted]

5.21 [Deleted]

5.22 [Deleted]

5.23 [Deleted]

5.24 [Deleted]

SSAM applying to transmission network

5.24A At the next *access arrangement review* the Authority will apply a financial reward or penalty to Western Power in relation to Western Power's actual performance in providing transmission *reference services*. The reward for good performance or penalty for poor performance is to be calculated in accordance with the table and notes below:

- (a) Western Power's actual performance will be calculated on the basis of the *service standard* definitions in section 3.21 of this *Access Arrangement*.
- (b) No reward or penalty will be made if actual performance falls within the Deadband.
- (c) The reward for good performance or penalty for poor performance is remunerated at the incentive rate, calculated from the "Lower Bound" or "Upper Bound" of the Deadband as the case may be, for each year of the *access arrangement period*.
- (d) Where actual performance is outside the Low Limit or High Limit, the total reward or penalty is calculated as if actual performance was equal to the Low Limit or High Limit as the case may be.

		Low Limit	Deadband			High Limit	Incentive Rate (\$ real as at 30 June 2009) per 0.1% Circuit Availability , and per 0.1 System Minutes Interrupted
			Lower bound	Target	Upper bound		
Circuit Availability (%)	2009/10	97.0	97.5	98	98.5	99.0	\$165,094
	2010/11	97.0	97.5	98	98.5	99.0	\$218,255
	2011/12	97.0	97.5	98	98.5	99.0	\$288,532
System Minutes Interrupted (meshed network)	2009/10	7.4	8.4	9.3	10.2	11.2	\$84,322
	2010/11	7.4	8.4	9.3	10.2	11.2	\$111,474
	2011/12	7.4	8.4	9.3	10.2	11.2	\$147,369
System Minutes Interrupted (radial network)	2009/10	1.1	1.3	1.4	1.5	1.7	\$29,481
	2010/11	1.1	1.3	1.4	1.5	1.7	\$38,974
	2011/12	1.1	1.3	1.4	1.5	1.7	\$51,524

- (c) An amount must be added to or subtracted from Western Power's *target revenue* for the third *access arrangement period* which, in present value terms, is equal to the aggregate of the bonuses and penalties calculated in accordance with this section 5.24A. The intention of this present value calculation is to ensure that the amount added to or subtracted from Western Power's *target*

revenue has the same financial effect as if the rewards or penalties applied in each year immediately following the relevant performance year.

SSAM applying to distribution network

5.24B At the next *access arrangement review* the Authority will apply a financial reward or penalty to Western Power in relation to Western Power's actual performance in providing *reference services* to users connected to the distribution network. The reward for good performance or penalty for poor performance is to be calculated in accordance with the tables and notes below:

- (a) Western Power's actual performance will be calculated on the basis of the *service standard* definitions set out in sections 3.16 and 3.17 of this *Access Arrangement*.
- (b) No reward or penalty will be made if actual performance falls within the Deadband.
- (c) The reward for good performance or penalty for poor performance is remunerated at the incentive rate, calculated from the "Lower Bound" or "Upper Bound" of the Deadband as the case may be.
- (d) Where actual performance is outside the Low Limit or High Limit, the total reward or penalty is calculated as if actual performance was equal to the Low Limit or High Limit as the case may be.

SAIDI		Low Limit	Deadband			High Limit	Incentive Rate (\$ real as at 30 June 2009) (Portion of distribution revenue per SAIDI minute)
			Lower bound	Target	Upper bound		
SAIDI - CBD (Minutes)	2009/10	30	34	38	42	46	\$89,845
	2010/11	30	34	38	42	46	\$118,877
	2011/12	30	34	38	42	46	\$155,200
SAIDI - Urban (Minutes)	2009/10	129	145	161	177	193	\$89,845
	2010/11	120	135	150	165	180	\$118,877
	2011/12	114	128	142	156	170	\$155,200
SAIDI – Rural Short (Minutes)	2009/10	202	228	253	278	304	\$3,416
	2010/11	186	210	233	256	280	\$4,548
	2011/12	178	200	222	244	266	\$5,906
SAIDI - Rural Long (Minutes)	2009/10	479	539	599	659	719	\$3,416
	2010/11	454	510	567	624	680	\$4,548
	2011/12	438	493	548	603	658	\$5,906

SAIFI		Low Limit	Deadband			High Limit	Incentive Rate (\$ real as at 30 June 2009) (Portion of distribution revenue per SAIFI minute)
			Lower bound	Target	Upper bound		
SAIFI - CBD (Minutes)	2009/10	0.19	0.22	0.24	0.26	0.29	\$4,216,767
	2010/11	0.19	0.22	0.24	0.26	0.29	\$5,587,216
	2011/12	0.19	0.22	0.24	0.26	0.29	\$7,313,110
SAIFI - Urban (Minutes)	2009/10	1.50	1.69	1.88	2.07	2.26	\$4,216,767
	2010/11	1.41	1.58	1.76	1.94	2.11	\$5,587,216
	2011/12	1.34	1.50	1.67	1.84	2.00	\$7,313,110
SAIFI – Rural Short (Minutes)	2009/10	2.44	2.75	3.05	3.36	3.66	\$183,284
	2010/11	2.26	2.55	2.83	3.11	3.40	\$243,520
	2011/12	2.16	2.43	2.7	2.97	3.24	\$317,136
SAIFI - Rural Long (Minutes)	2009/10	3.91	4.40	4.89	5.38	5.87	\$183,284
	2010/11	3.71	4.18	4.64	5.10	5.57	\$243,520
	2011/12	3.58	4.02	4.47	4.92	5.36	\$317,136

- (e) An amount must be added to or subtracted from Western Power's *target revenue* for the third *access arrangement period* which, in present value terms, is equal to the aggregate of the bonuses and penalties calculated from the above table. The intention of this present value calculation is to ensure that the amount added to or subtracted from Western Power's *target revenue* has the same financial effect as if the rewards or penalties applied in each year immediately following the performance year.

Overview of Price Control

- 5.25 In accordance with sections 6.1, 6.2(c) and 6.4 of the *Code*, the form of price control for *reference services* will be "revenue cap", which has the objectives (amongst other things) of giving Western Power an opportunity to earn *target revenue* for the *access arrangement period* from the provision of *covered services*.
- 5.26 Separate revenue caps will apply in respect of the *reference services* provided by means of the transmission network and the distribution network. The establishment of both revenue caps has been made by reference to Western Power's *approved total costs* for *reference services*.

Transmission Network Revenue Cap for Reference Services

- 5.27 The Transmission Network Revenue Cap for Reference Services determines the maximum transmission reference service revenue (MTR_t) for Western Power's transmission network for each financial year *t*. Subject to the annual side constraints on reference tariff movements set out in section 3.11 of this *Access Arrangement*, Western Power will use its reasonable endeavours to ensure that the actual transmission reference service revenue in financial year *t* does not exceed the maximum transmission reference service revenue in financial year *t*.

- 5.28 The operation of the correction factor, TK_t , as described in sections 5.36 and 5.37 of this *Access Arrangement* will ensure that the MTR in year t is adjusted for any shortfall or over-recovery of actual transmission reference service revenue compared to the MTR in preceding years.
- 5.29 For the purposes of this Transmission Network Revenue Cap for Reference Services, Western Power's actual regulated transmission revenue in financial year t comprises:
- (a) transmission revenue earned in relation to the provision of *reference services* in financial year t, subject to section 5.33 of this *Access Arrangement*. Where a *reference service* is provided jointly by Western Power's transmission and distribution networks, the revenue earned must be allocated between the networks in a fair and reasonable manner.
- (b) [Deleted]
- 5.30 [Deleted]
- 5.31 [Deleted]
- 5.32 [Deleted]
- 5.33 For the avoidance of doubt, revenue received by Western Power for *excluded services*, *non-reference services* and *capital contributions* must not be treated as actual regulated revenue for the purposes of this Transmission Network Revenue Cap for Reference Services.
- 5.34 The Transmission Network Revenue Cap for Reference Services commences on 1 July 2009, even if this *Access Arrangement* is approved after that date. This revenue cap applies annually on a financial year basis for the duration of this *Access Arrangement*.
- 5.35 For this *access arrangement period*, the maximum transmission reference service revenue MTR_t is determined as follows:

$$MTR_t = TR_t + AA\#1_t + TK_t$$

Where:

TR_t is the dollar amount in money of the day terms (current prices) for the financial year t calculated from the dollar amounts (expressed in 30 June 2009 prices) set out in the table below.

Transmission reference service revenues to be used for calculating TR_t and value of Y to be used for calculation of tariff side constraint (\$ million real as at 30 June 2009)

	2009/10	2010/11	2011/12
TR_t	338.0	446.8	590.6
Y	n/a	32.2%	32.2%

TK_t is the correction factor calculated in accordance with sections 5.36 and 5.37 of this *Access Arrangement*, which takes account of any difference between the maximum transmission reference service revenue in financial year t-1 and the actual transmission reference service revenue in financial year t-1.

$AA\#1_t$ is a positive or negative smoothed amount for the financial year t calculated to give effect to the following adjustments (if applicable) in accordance with the previous *access arrangement*:

- Adjusting *target revenue* for unforeseen events;
- Adjusting *target revenue* for technical rule changes;
- Investment adjustment mechanism; and
- Capital contributions adjustment mechanism.

For the avoidance of doubt, $AA\#1_t$ must take account of inflation, the time value of money and estimates (if any) of the above adjustments that have been included in the calculation of TR_t in this section 5.35 of this *Access Arrangement*. Western Power will provide model outputs to the Authority to demonstrate that the above smoothed adjustments have been made in accordance with the previous *access arrangement*.

For the purpose of determining compliance with this revenue cap and calculating TR_t , TK_t and therefore MTR_t , in each financial year CPI adjustments will be effected by using published CPI data relating to the relevant March quarters.

5.36 For financial years commencing on 1 July 2010 and 1 July 2011:

$$TK_t = (MTR_{t-1} - ATR_{t-1}) * (1 + WACC_{\text{pre-tax real}})$$

Where:

MTR_{t-1} is the maximum reference service revenue for Western Power's transmission network in the previous financial year.

ATR_{t-1} is the actual transmission reference service revenue in the previous financial year as defined in accordance with section 5.29 of this *Access Arrangement*.

$WACC_{\text{pre-tax real}}$ is 8.95%.

For the financial year commencing on 1 July 2009, TK_t will be calculated in accordance with the previous *access arrangement*.

For the avoidance of doubt, it should be noted that the annual tariff-setting process for financial year t typically takes place before the end of financial year t-1. Therefore, TK_t will need to be estimated in the first instance, and then recalculated in the subsequent financial year when ATR_{t-1} is known.

5.37 The correction factor, TK_t , will also apply in the first year of the next *access arrangement period* to adjust for any difference between maximum transmission *reference service* revenue and actual transmission *reference service* revenue, in relation to the financial year commencing on 1 July 2011.

5.37A To manage the overall price increases in this *access arrangement period*, Western Power has deferred the recovery of some transmission *reference service* revenue from

this *access arrangement period* to the third or subsequent *access arrangement periods*. The deferred amount of revenue is \$14.6 million (\$ real as at 30 June 2009) expressed in present value terms as at 30 June 2009. An amount must be added to the *target revenue* for the transmission network in the third *access arrangement period* or subsequent *access arrangement periods* such that the present value (at 30 June 2009) of the total amount added to *target revenue* (taking account of inflation and the time value of money) is equal the present value of the deferred transmission *reference service* revenue (at 30 June 2009). For the avoidance of doubt, the addition to *target revenue* in the third and subsequent *access arrangement periods* must leave Western Power financially neutral compared to a situation where transmission *reference service* revenue deferral had not occurred.

Distribution Network Revenue Cap for Reference Services

- 5.38 The Distribution Network Revenue Cap for Reference Services determines the maximum distribution reference service revenue (MDR_t) for Western Power's distribution network for each financial year t . Subject to the annual side constraints on reference tariff movements set out in section 3.11 of this *Access Arrangement*, Western Power will use its reasonable endeavours to ensure that the actual distribution reference service revenue in financial year t does not exceed the maximum distribution reference service revenue in financial year t .
- 5.39 The operation of the correction factor, DK_t , as described in sections 5.47 and 5.48 of this *Access Arrangement* will ensure that the MDR in year t is adjusted for any shortfall or over-recovery of actual distribution reference service revenue compared to the MDR in preceding years.
- 5.40 For the purposes of this Distribution Network Revenue Cap, Western Power's actual regulated distribution revenue in financial year t comprises:
- (a) distribution revenue earned in relation to the provision of *reference services* in financial year t , subject to section 5.44 of this *Access Arrangement*. Where a *reference service* is provided jointly by Western Power's transmission and distribution networks, the revenue earned must be allocated between the networks in a fair and reasonable manner.
 - (b) [Deleted]
- 5.41 [Deleted]
- 5.42 [Deleted]
- 5.43 [Deleted]
- 5.44 For the avoidance of doubt, revenue received by Western Power for *excluded services*, *non-reference services* and *capital contributions* must not to be treated as actual regulated revenue for the purposes of this Distribution Network Revenue Cap for Reference Services.
- 5.45 The Distribution Network Revenue Cap for Reference Services commences on 1 July 2009, even if this *Access Arrangement* is approved after that date. This revenue cap applies annually on a financial year basis for the duration of this *Access Arrangement*.
- 5.46 For this *access arrangement period*, the maximum regulated distribution revenue MDR_t is determined as follows:

$$MDR_t = DR_t + TEC_t + AA\#1_t + DK_t$$

Where:

DR_t is the dollar amount in money of the day terms (current prices) for the financial year t calculated from the dollar amounts (expressed in 30 June 2009 prices) set out in the table below.

Distribution reference service revenues to be used for calculating DR_t and value of Y to be used for calculation of tariff side constraint (\$ million real as at 30 June 2009)

	2009/10	2010/11	2011/12
DR_t	640.7	800.8	1,001.0
Y	n/a	25.0%	25.0%

TEC_t is any cost incurred by the distribution network for the financial year t as a result of the tariff equalisation contribution in accordance with section 6.37A of the *Code*.

$AA\#1_t$ is a positive or negative smoothed amount for the financial year t calculated to give effect to the following adjustments (if applicable) in accordance with the previous *access arrangement*:

- Adjusting *target revenue* for unforeseen events;
- Adjusting *target revenue* for technical rule changes;
- Investment adjustment mechanism; and
- Capital contributions adjustment mechanism.

For the avoidance of doubt, $AA\#1_t$ must take account of inflation, the time value of money and estimates (if any) of the above adjustments that have been included in the calculation of DR_t in this section 5.46 of this *Access Arrangement*. Western Power will provide model outputs to the Authority to demonstrate that the above smoothed adjustments have been made in accordance with the previous *access arrangement*.

DK_t is the correction factor calculated in accordance with sections 5.47 and 5.48 of this *Access Arrangement*, which takes account of any difference between the maximum regulated distribution network revenue in financial year t-1 and the actual regulated distribution network revenue in financial year t-1.

For the purpose of determining compliance with this revenue cap and calculating DR_t , DK_t and therefore MDR_t , in each financial year CPI adjustments will be effected by using published CPI data relating to the relevant March quarters.

5.47 For financial years commencing on 1 July 2010 and 1 July 2011:

$$DK_t = (MDR_{t-1} - ADR_{t-1}) * (1+WACC_{pre-tax real})$$

Where:

MDR_{t-1} is the maximum regulated revenue for Western Power's distribution network in the previous financial year.

ADR_{t-1} is the actual regulated distribution revenue in the previous financial year as defined in accordance with section 5.40 of this *Access Arrangement*.

$WACC_{pre-tax\ real}$ is 8.95%.

For the financial year commencing on 1 July 2009, DK_t will be calculated in accordance with the previous *access arrangement*.

For the avoidance of doubt, it should be noted that the annual tariff-setting process for financial year t typically takes place before the end of financial year $t-1$. Therefore, DK_t will need to be estimated in the first instance, and then recalculated in the subsequent financial year when ADR_{t-1} is known.

- 5.48 The correction factor, DK_t , will also apply in the first year of the next *access arrangement period* to adjust for any difference between maximum distribution reference service revenue and actual distribution reference service revenue, in relation to the financial year commencing on 1 July 2011.
- 5.48A To manage the overall price increases in this *access arrangement period*, Western Power has deferred the recovery of some distribution *reference service* revenue from this *access arrangement period* to the third or subsequent *access arrangement periods*. The deferred amount of revenue is \$177.3 million (\$ real as at 30 June 2009) expressed in present value terms as at 30 June 2009. An amount must be added to the *target revenue* for the distribution network in the third *access arrangement period* or subsequent *access arrangement periods* such that the present value (at 30 June 2009) of the total amount added to *target revenue* (taking account of inflation and the time value of money) is equal the present value of the deferred distribution *reference service* revenue (at 30 June 2009). For the avoidance of doubt, the addition to *target revenue* in the third and subsequent *access arrangement periods* must leave Western Power financially neutral compared to a situation where revenue deferral had not occurred.

Investment adjustment mechanism

- 5.49 In the next *access arrangement period*, the Authority will make an allowance (positive or negative) in Western Power's *target revenue* in accordance with the *investment adjustment mechanism* set out below.
- 5.50 The *investment adjustment mechanism* will apply to both transmission and distribution capital expenditure. The purpose of the *investment adjustment mechanism* is to adjust Western Power's *target revenue* in the next *access arrangement period* in a manner that exactly corrects for the economic loss or gain to Western Power as a result of forecasting errors in relation to particular categories of capital expenditure (the *investment difference*) in this *access arrangement period*. In order to give effect to this purpose, the *investment adjustment mechanism* must take account of:
- (a) The effects of inflation, both in this *access arrangement period* and the next *access arrangement period*;
 - (b) The time value of money as reflected by the real pre-tax WACC as applied in this *access arrangement period* and the next *access arrangement period*; and

- (c) The cost of depreciation and the value of capital additions to the *capital base* at the next *access arrangement* period.
- 5.51 Given the requirements of the *investment adjustment mechanism* as described in section 5.50 above, Western Power's approach is to calculate the difference in present value terms between:
- (a) The *target revenue* that would have been calculated for this *access arrangement period* if the *investment difference* had been zero (i.e. there was no forecasting error in relation to the capital expenditure categories that are subject to the *investment adjustment mechanism*); and
 - (b) The *target revenue* that actually applied in this *access arrangement period*.

The adjustment to *target revenue* in the next *access arrangement period* should be such that its present value is equal to the present value of the difference described above.

5.52 [Deleted]

- 5.53 For the purposes of calculating the *investment adjustment mechanism*, the categories of capital expenditure that are used in calculating the *investment difference* are:
- (a) *new facilities investment* arising from the connection of new generation capacity to the transmission or distribution network from 1 July 2009;
 - (b) *new facilities investment* arising from the connection of new load to the *transmission system* or *distribution system* from 1 July 2009;
 - (c) *new facilities investment* in relation to the augmentation of the capacity of the *transmission system* or *distribution system* for the provision of *covered services* from 1 July 2009; and
 - (d) *new facilities investment* undertaken for augmentation of the *distribution system* under the regional power improvement program and state underground power program.

D factor Scheme

- 5.54 This D factor scheme applies to both transmission and distribution expenditure.
- 5.55 In the next access arrangement, the Authority will make an allowance in Western Power's *target revenue* so that Western Power is financially neutral as a result of:
- (a) any additional operating expenditure incurred by Western Power as a result of deferring a capital expenditure project during this *access arrangement period*; and
 - (b) any additional operating or capital expenditure incurred by Western Power in relation to demand management initiatives.
- 5.56 In relation to 5.55(a), the capital expenditure project that has been deferred must have been included in Western Power's forecast capital expenditure in its *revised access arrangement information* or supporting documentation, and in the Authority's allowed capital expenditure for this *access arrangement period*.

- 5.57 In relation to 5.55(a) and 5.55(b), an additional amount will only be allowed if there is an approved business case for the relevant expenditure, and this business case is made available to the Authority.

6 Capital Base Value and Depreciation

Capital base value

- 6.1 The table below shows the derivation of the capital base value as at 30 June 2009.

Derivation of Transmission Initial Capital Base (net)
(\$ million real as at 30 June 2009)

Financial year ending:	30 June 2006	30 June 2007	30 June 2008	30 June 2009
Opening capital base value		1,523.2	1,776.5	2,035.2
less Depreciation		-53.6	-58.3	-63.3
plus Capital Expenditure		306.9	317.0	443.6
less Redundant Assets		0.0	0.0	0.0
Closing capital base value	1,523.2	1,776.5	2,035.2	2,415.5

Derivation of Distribution Initial Capital Base (net)
(\$ million real as at 30 June 2009)

Financial year ending:	30 June 2006	30 June 2007	30 June 2008	30 June 2009
Opening capital base value		1,751.7	2,088.7	2,454.1
less Depreciation		-106.8	-111.9	-121.4
plus Capital Expenditure		448.0	481.3	582.9
less Redundant Assets		-4.2	-4.0	-3.9
Closing capital base value	1,751.7	2,088.7	2,454.1	2,911.7

- 6.2 The capital base value as at 30 June 2009 reflects a forecast of capital expenditure for the year ending 30 June 2009 ("2008/09") and a forecast of inflation of 3.0% for the year ending 30 June 2009. To ensure that Western Power is remunerated only for actual capital investment that is undertaken in the year ending 30 June 2009 and actual inflation:
- (a) the *capital base value* at the commencement of the next *access arrangement period* will be adjusted (in real terms) for any difference between the actual capital expenditure and the forecast of capital expenditure for the 2008/09 year that was used to establish the opening capital base value at 30 June 2009 (the "2008/09 capital expenditure forecast error");
 - (b) the *capital base value* at the commencement of the next *access arrangement period* will also be adjusted for any difference between the actual inflation (using the CPI weighted average for eight capital cities) and the forecast inflation for

the 2008/09 year that was used to establish the opening capital base value at 30 June 2009 (the “2008/09 inflation forecast error”); and

- (c) an adjustment to the *target revenue* in the next *access arrangement period* will be made to compensate Western Power (or users) for the revenue foregone (or additional revenue recovered) by Western Power over this *access arrangement period* in respect of the *2008/09 capital expenditure forecast error* or the *2008/09 inflation forecast error*.

6.3 For the avoidance of doubt:

- (a) under the arrangements set out in section 6.2 of this *Access Arrangement* the *target revenue* for this *access arrangement period* will not be adjusted for the *2008/09 capital expenditure forecast error* or the *2008/09 inflation forecast error*;
- (b) the intended effect of the arrangements set out in section 6.2 of this *Access Arrangement* is to hold Western Power and users economically neutral in the event that there are any *2008/09 capital expenditure forecast errors* or *2008/09 inflation forecast error*; and
- (c) adjustments made at the next *access arrangement* review pursuant to section 6.2 of this *Access Arrangement* will have the effect of ensuring that the total revenue recovered by Western Power over this *access arrangement period* and subsequent *access arrangement periods* will be equivalent in present value terms to the amount that would be recovered if there were no *2008/09 capital expenditure forecast errors* or no *2008/09 inflation forecast error*.

Depreciation

6.4 Pursuant to section 6.70 of the *Code*, the *price control* set out in this *Access Arrangement* provides for the depreciation of the *network assets* that comprise the *capital base*. References to depreciation in this *Access Arrangement* relate solely to regulatory depreciation for the purposes of calculating the *target revenue*, and do not relate to the calculation of depreciation for accounting or taxation purposes. For the avoidance of doubt, the annual depreciation provision contained in the *target revenue* represents a return of the *capital base* value to the providers of capital.

6.5 The annual depreciation provision contained in the *target revenue* for each year of the *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 tables:

Transmission asset groupings and economic lives for depreciation purposes

Asset group	Economic Life (years) for depreciation purposes
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

Distribution asset groupings and economic lives for depreciation purposes

Asset group	Economic Life (years) for depreciation purposes
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

- 6.6 For the avoidance of doubt, Western Power confirms that it is adopting a straight-line approach to depreciation and is not proposing any accelerated depreciation in the *access arrangement period* in relation to transmission assets. In respect of distribution assets, Western Power will apply accelerated depreciation in respect of those distribution assets that will be decommissioned as a result of the retrospective undergrounding project undertaken by Western Power on behalf of the Western Australian government.

Distribution redundant capital by asset class (\$ million real as at 30 June 2009)

Financial year ending:	30 June 2010	30 June 2011	30 June 2012
Distribution lines - wood poles	2.8	2.8	2.7
Distribution lines - steel poles	0.0	0.0	0.0
Distribution underground cables	0.0	0.0	0.0
Distribution transformers	0.8	0.7	0.7
Distribution switchgear	0.2	0.2	0.2
Street lighting	0.0	0.0	0.0
Distribution meters and services	0.0	0.0	0.0
Distribution IT&T	0.0	0.0	0.0
Distribution SCADA & communications	0.0	0.0	0.0
Distribution Other, non-network	0.0	0.0	0.0
Distribution Land & Easements	0.0	0.0	0.0
TOTAL	3.8	3.7	3.6

7 Weighted Average Cost of Capital

- 7.1 Pursuant to section 6.64 of the *Code* the *weighted average cost of capital* for Western Power's *covered network* is 8.95% real pre-tax.

8 Trigger Events

- 8.1 Pursuant to section 4.37 of the *Code* a *trigger event* is any significant unforeseen development which has a materially adverse impact on the *service provider* and which is:
- (a) outside the control of the *service provider*;
 - (b) not something that the *service provider*, acting in accordance with *good electricity industry practice*, should have been able to prevent or overcome; and
 - (c) an event the impact of which is so substantial 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.
- 8.1A For the avoidance of doubt, a *trigger event* may include without limitation the introduction of an emissions trading scheme; full retail contestability; and the roll-out of Advanced Interval Meters to the extent that such costs were not included in the calculation of *target revenue* for the *access arrangement period* or otherwise addressed through the Unforeseen Event provisions in sections 5.4 to 5.6 of this *Access Arrangement*.
- 8.2 The *designated date* by which Western Power must submit *proposed revisions* to the *Authority* is 30 business days after a *trigger event* has occurred. If the costs associated with the *trigger event* are uncertain at the time of the *designated date*,

Western Power's *proposed revision* to the *Authority* under section 4.37 of the *Code* must incorporate an appropriate mechanism for cost recovery having regard to the *Code Objective*.

9 Pricing Methods

Purpose

- 9.1 Pursuant to section 5.1(e) of the *Code* and Chapter 7 of the *Code*, this section describes the *pricing method* applied by Western Power.

Network pricing objectives

- 9.2 Western Power's *pricing method* is designed to achieve the objectives set out in sections 7.3 and 7.4 of the *Code*.
- 9.3 Without compromising the objectives set out in sections 7.3 and 7.4 of the *Code*, Western Power's *pricing method* seeks to recover the costs of providing *reference services* from *users* in a manner that is simple, practical and equitable.

Overview of Pricing Method

- 9.4 *Reference tariffs* are derived from an analysis of the cost of service provision which entails:
- (a) identifying the costs of providing *reference services*;
 - (b) allocating the costs of providing *reference services* to particular customer groups;
 - (c) translating the costs of serving particular customer groups to the costs of providing *reference tariffs*; and
 - (d) determining a structure of *reference tariffs* in a manner that reflects the underlying cost structure, in accordance with section 7.6 of the *Code*.
- 9.5 The costs relating to *reference services* A1 to A10 are expressed so that these costs can be incorporated in the relevant *reference tariff* in a cost reflective manner.
- 9.6 *Reference tariffs* for reference services A11, B1 and B2 are location-specific and are published for each electrical node.

Pricing method and price list information

- 9.7 This section of the *Access Arrangement* explains how the *pricing method* complies with the *Code* requirements. As noted in paragraph 3.11A of this *Access Arrangement*, for the forthcoming *access arrangement period* Western Power has deferred the recovery of some revenue to the third or subsequent *access arrangement periods*. To give effect to this deferral, the *reference tariffs* for 2008/09 will be scaled in each year to recover the appropriate amount of revenue from *reference services*. The effect of this scaling is to preserve the cost allocations that were established in the first *access arrangement period*. In accordance with the *Code* requirements, the *price list information* provided as Appendix 6 to this *Access Arrangement* explains the *pricing method* that underpinned the development of *reference tariffs* in the first *access arrangement period*, which, in turn, forms the basis of the *reference tariffs* for the forthcoming *access arrangement period*.

Recovery of forward-looking efficient costs of providing reference services

- 9.8 In accordance with section 7.3(a) of the *Code*, reference tariffs are designed to recover forward-looking costs of providing reference services. It is recognised that the total forward-looking costs for the provision of network services relate to the provision of reference and non-reference services. Further information is provided in the *price list information*, Appendix 6 to this *Access Arrangement*.
- 9.9 Non-reference service revenue is recovered on a fee-for-service basis and reflects that component of the forecast costs related to the provision of non-reference services.
- 9.10 Capital contributions are charged in accordance with Western Power's contributions policy. In general terms, capital contributions seek to recover in net present value terms any shortfall between the expected revenue from reference tariffs and the costs of connection.

Reference tariffs should be between the incremental and the stand-alone cost of service provision.

- 9.11 In accordance with section 7.3(b)(i) and (ii) of the *Code*, reference tariffs are set to at least recover the incremental cost, but to be less than the stand-alone cost of service provision. Further information is provided in the *price list information*, Appendix 6 to this *Access Arrangement*.
- 9.12 [Deleted]
- 9.13 [Deleted]
- 9.14 [Deleted]

Charges paid by different users of a reference service

- 9.15 In accordance with section 7.4(a) of the *Code*, the charges paid by different users of a reference service differ only to the extent necessary to reflect differences in the average cost of service provision to the users.
- 9.16 Each of the reference tariffs takes into account the metering information available for each reference service, and therefore contains components that vary with usage or demand. In addition reference tariffs RT5, RT6, RT7, RT8, RT11, TRT1 and TRT2 vary with location. Within the requirements of section 7.7 of the *Code*, these components reflect the differences in average cost of different users of the same reference service. Further information is provided in the *price list information*, Appendix 6 to this *Access Arrangement*.

Reasonable requirements of users

- 9.17 In accordance with section 7.4(b) of the *Code*, the structure of reference tariffs has been set to reasonably accommodate the requirements of users collectively. This has been achieved by developing the tariff structure through a consultative process that involved Government and industry stakeholders. Most tariffs have been in place since 2001 and are accepted as being appropriate for the provision of reference services.

Structure of tariffs should enable a user to predict the likely annual changes.

- 9.18 In accordance with section 7.4(c) of the *Code*, users can predict the likely annual changes in reference tariffs. All reference tariffs are defined for the first year of the

Access Arrangement. For the remainder of the *access arrangement* period side constraints limit the variation of any tariff component. In addition the forecast tariff revenue has been smoothed across the *access arrangement* period to facilitate smooth price movements.

Avoidance of price shock

9.19A In accordance section 3.11A of this Access Arrangement, to manage the overall price increases in this *access arrangement period*, Western Power has deferred the recovery of some revenue from this access arrangement period until the third or subsequent *access arrangement periods*. The deferred revenue amounts are described in section 5.37A and 5.48A of this *Access Arrangement*. In addition, the forecast tariff revenue has been smoothed across the *access arrangement* period so that price movements will be smoothed across each year. The chosen rate of smoothing is also intended to minimise the likelihood of price shock at the start of the third *access arrangement period*.

9.19 In accordance with section 7.4(d) of the *Code*, rebalancing of reference tariffs is constrained by the imposition of side constraints on annual price movements.

Tariff components

9.20 In accordance with section 7.6 of the *Code*, reference tariffs have been designed to recover the cost of service provision in a cost reflective manner. The *Code* requires the incremental cost of service provision to be recovered by tariff components that vary with usage, and the costs in excess of the incremental costs to be recovered through tariff components that do not vary with usage. Further information is provided in the *price list information*, Appendix 6 to this *Access Arrangement*.

9.21 [Deleted]

9.22 *Reference tariffs* are structured so that usage-related charges properly reflect the incremental costs to Western Power of providing *reference services*, in accordance with section 7.6 of the *Code*.

Policy on prudent discounting

9.23 In accordance with section 7.9 of the *Code*, Western Power may discriminate between *users* in its pricing of *services* to the extent that it is necessary to do so to aid economic efficiency, by:

(a) entering into an agreement with a *user* to apply a *discount* to the *equivalent tariff* to be paid by the *user* for a *covered service*; and

(b) then, recovering the amount of the *discount* from other *users* of *reference services* through *reference tariffs*.

9.24 In exercising its discretion with regard to prudent discounting, Western Power will have regard to the pricing objectives in sections 7.3 and 7.4 of the *Code*.

9.25 Western Power may offer a prudent discount if the existing *user* or *applicant* seeking *access* to the *SWIN* is able to demonstrate that another supply option will provide a comparable service at a lower price than that offered by Western Power's *reference services* and *reference tariffs*.

- 9.26 The existing *user* or *applicant* must provide Western Power with sufficient details of the cost of the other option to enable Western Power to calculate the annualised cost of the other option.
- 9.27 Western Power's discounted price offer will be set to reflect the higher of:
- (a) the cost of the other option, or
 - (b) the *incremental cost of service provision*.

Policy on discounts for distributed generation

- 9.28 In accordance with section 7.11 of the *Code*, Western Power will offer to a *user* who *connects distributed generating plant* to the *SWIS*, a share of any reductions in either or both of Western Power's *capital-related costs* or *non-capital costs* which arise as a result of the *entry point* for *distributed generating plant* being located in a particular part of the *SWIN* by:
- (a) entering into an agreement with a *user* to apply a discount to the *equivalent tariff* to be paid by the *user* for a *covered service*; and
 - (b) then, recovering the amount of the discount from other *users* of *reference services* through *reference tariffs*.
- 9.29 The amount of the total discount available under section 9.28 will be determined by Western Power as the forecast *capital-related costs* and *non-capital costs* that would be incurred if the *distributed generating plant* were not to *connect* minus the forecast *capital-related costs* and *non-capital costs* that would be incurred if the *distributed generating plant* were to *connect*. The cost analysis will be conducted over a period of at least 10 years, depending on the availability and accuracy of data. A discount will only be payable if the amount calculated in accordance with this section 9.29 is greater than zero.
- 9.30 The discount calculated in accordance with section 9.29 will be calculated in present value terms and, using the real pre-tax *WACC*, converted to an equivalent annualised discount for a defined period of time, as agreed by the parties. Nothing in this calculation prevents the discount exceeding 100% of the *equivalent tariff*.

10 Supplementary Matters

Balancing

- 10.1 Balancing requirements under the *Access Arrangement* shall be in accordance with the Wholesale Electricity Market Rules.

Line Losses

- 10.2 Requirements for the treatment of line losses under the *Access Arrangement* shall be in accordance with the Wholesale Electricity Market Rules.

Metering

- 10.3 Metering requirements under the *Access Arrangement* shall be in accordance with the Electricity Industry Metering Code 2005 and the Metering Code Model Service Level Agreement.

Ancillary Services

- 10.4 Requirements for the treatment of ancillary services under the *Access Arrangement* shall be in accordance with the Wholesale Electricity Market Rules.

Stand-by

- 10.5 Under the Wholesale Electricity Market Rules there is no requirement for stand-by generation.

Trading

- 10.6 Trading requirements under the *Access Arrangement* shall be in accordance with the Wholesale Electricity Market Rules.

Settlement

- 10.7 Settlement requirements under the *Access Arrangement* shall be in accordance with the Wholesale Electricity Market Rules.

Possible Interim Arrangements

- 10.8 [Deleted]

- 10.9 [Deleted]

