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

24 December 2009

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1 Introduction

Purpose of this document

1.1A. These *amended proposed revisions* are lodged by Western Power by 24 December 2009 for review and approval by the *Authority* in accordance with the processes and criteria set out in the *Code*. 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 The SWIN is a *covered network* from the *Code commencement date*, unless *coverage* has subsequently been revoked under section 3.30 of the *Code*.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 revisions commencement date

1.4 Subject to sections 5.34 and 5.45, this *Access Arrangement* is effective from 1 March 2010 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;

(h) explanatory notes regarding the price control arrangements attached at Appendix 8; and

(i) explanatory notes regarding the distribution headworks methodology attached at Appendix 9.

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 has commenced a review of the *technical rules*.

1.9 Western Power's amended revised *access arrangement information* is submitted on 24 December 2009 alongside this A*ccess Arrangement* in accordance with section 4.4 of the *Code*. The amended 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

3.6A Western Power offers one bidirectional energy flow service as a *reference service* for electricity consumers with small scale embedded generation (inverter connected):

1. Time of Use (Residential) – Bidirectional Service	C1

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 In its determination dated 18 May 2009, the Authority approved Western Power's *price list* from 1 July 2009 for the South West Interconnected Network.

3.9 The *price list* is to be updated in accordance with Chapter 8 of the *Code*. The *pricing years* for this *Access Arrangement* are defined in the table below:

Pricing Year	Start Date	End Date
1	Start date of the amended proposed access arrangement revisions	30 June 2010
2	1 July 2010	30 June 2011
3	1 July 2011	30 June 2012

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*). Western Power's proposed *price list* for the period 1 March 2010 to 30 June 2010 is provided at Appendix 5 for approval by the Authority.

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 and the arrangements for recovering this deferred revenue in the third or subsequent *access arrangement periods* are described in sections 5.37A and 5.48A of this *Access Arrangement*.

3.11 To constrain tariff rebalancing the maximum changes in reference tariffs at times of revision of the price list are:

- +/- (CPI + 13 percentage points) for the transmission network; and
- +/- (CPI + 18 percentage points) for the distribution network.

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, B1 and C1 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 *consumers* at the beginning and end of the period.
Exclusions:	• Major event days in accordance with IEEE1366-2003 definitions. • 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. • *Force majeure* 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 *consumers* at the beginning and end of the period.
Exclusions:	• Major event days in accordance with IEEE1366-2003 definitions. • 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. • *Force majeure* events.

3.18 The service standard benchmarks expressed in terms of SAIDI for the reference services A1 to A10, B1 and C1 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	230	38	165	259	612
Year ending June 2011	224	38	162	253	588
Year ending June 2012	213	38	153	244	556

3.19 The *service standard benchmarks* expressed in terms of SAIFI for the *reference services* A1 to A10, B1 and C1 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	2.50	0.24	1.92	3.12	5.00
Year ending June 2011	2.46	0.24	1.89	3.06	4.85
Year ending June 2012	2.41	0.24	1.83	2.98	4.80

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; System Minutes Interrupted; Loss of Supply Events; and Average Outage Duration 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:	$\frac{\text{No of Hours per Annum Circuits are Available}}{\text{Total Possible No. of Circuit Hours}} x100$ Definition: The actual circuit hours available for transmission circuits divided by the total possible defined circuit hours available.
Exclusions:	• 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:	• '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:	$\sum \frac{\text{MW Minutes of Unserved Energy}}{\text{System Peak MW}}$ (for both Meshed and Radial Transmission Network separately) Definition: 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. 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.
Exclusions:	• 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:	• 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.

Performance Indicator:	Loss of Supply Events • Frequency of events where loss of supply exceeds 0.1 system minutes • Frequency of events where loss of supply exceeds 1.0 system minutes
Unit of measure:	Number of events per annum
Source of data:	SCADA Network Status Processor (NSP), PI Server database, System Disturbance database
Definition/Formula:	• Number of events greater than 0.1 system minutes • Number of events greater than 1.0 system minutes System minutes are calculated for each supply interruption by the "load integration method" using the following formula: $\frac{\Sigma \text{ (MWh unsupplied x 60)}}{\text{MW Peak Demand}}$ Where: • MWh unsupplied is the energy not supplied as determined by using Western Power metering and PI server database. This data is used to estimate the profile of the load over the period of the interruption by reference to historical load. • Period of the interruption starts when a loss of supply occurs and ends when Western Power offers supply restoration to the customer. • MW Peak Demand is the maximum demand recorded on the South West Interconnected System for the previous financial year.
Exclusions:	• Unregulated transmission assets • Any outages shown to be caused by a 'third party system' Eg intertrip signal, generator outage, customer installation, customer request or Western Power direction • Momentary interruptions (less than one minute) • Planned outages • *Force majeure events*
Inclusions:	• All unplanned customer outages on all parts of the regulated transmission system.

Performance Indicator:	Average outage duration
Unit of measure:	Minutes
Source of data:	SCADA Network Status Processor (NSP), PI Server database, System Disturbance database and ASI Availability reporting database
Definition/Formula:	$\frac{\text{Aggregate minutes duration of all unplanned outages}}{\text{No. of events}}$
Exclusions:	• Planned outages • Momentary interruptions (less than one minute) • *Force majeure events* • Unregulated transmission assets • Any outages shown to be caused by a 'third party system' Eg intertrip signal, generator outage, customer installation, customer request or System Management direction. • The impact of each event is capped at 14 days
Inclusions:	• Faults on all parts of the regulated transmission system • All forced and fault outages whether or not loss of supply occurs • Circuits include regulated overhead lines, underground cables and "bulk" power transformers (each with a designated Western Power SCADA ASI tag). Regional transformers, reactive plant and other primary plant are excluded from the performance parameter

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) (minutes)	9.3	9.3	9.3
System Minutes Interrupted (radial network) (Minutes)	1.4	1.4	1.4
Loss of Supply Event Frequency (Number of events > 0.1 System Minutes)	25	25	25
Loss of Supply Event Frequency (Number of events > 1 System Minutes)	2	2	2
Average Outage Duration (Minutes)	764	764	764

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 revisions commencement 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. For the avoidance of doubt, all incentive and cost recovery mechanisms described in this *Access Arrangement* operate from 1 July 2009, and therefore references to *access arrangement period* should be interpreted accordingly.

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 5.14B to 5.14F and in Appendix 8 of this *Access Arrangement*.

5.14 [Deleted]

5.14A [Deleted]

5.14B Subject to section 5.14C, an above benchmark surplus is to be calculated for each of the years 2009/10 to 2011/12 as:

$$ABS_{2009/10} = EIB_{2009/10} - A_{2009/10}$$

$$ABS_{2010/11} = (EIB_{2010/11} - A_{2010/11}) - (EIB_{2009/10} - A_{2009/10})$$

$$ABS_{2011/12} = (EIB_{2011/12} - A_{2011/12}) - (EIB_{2010/11} - A_{2010/11}),$$

Where:

ABS_t is the above-benchmark surplus in year t;

EIB_t is the efficiency and innovation benchmark for year t, being the sum of the forecasts of total non-capital costs for year t applied in the determination of target revenue for the transmission and distribution networks for that year, adjusted for inflation as appropriate and adjusted to include any relevant adjustments for unforeseen events and changes to the Technical Rules as allowed for under sections 6.6 and 6.9 of the Code; and

A_t is the sum of the actual non-capital costs incurred by Western Power in respect of the transmission and distribution networks in year t, excluding any amount of non-capital costs incurred by Western Power in accordance with the D-factor scheme in this Access Arrangement and providing that the expenditure has been approved by the Authority.

5.14C In any year in which an above-benchmark surplus is calculated to be a positive value but Western Power fails to meet service standard benchmarks for that year, the above-benchmark surplus for that year is deemed to be zero.

5.14D Subject to section 5.14E, the following amounts may be added to target revenue for one or more access arrangement periods covering the years 2012/13 to 2016/17:

$$GSMA_{2012/13} = ABS_{2009/10} + ABS_{2010/11} + ABS_{2011/12}$$

$$GSMA_{2013/14} = ABS_{2009/10} + ABS_{2010/11} + ABS_{2011/12}$$

$GSMA_{2014/15} = ABS_{2009/10} + ABS_{2010/11} + ABS_{2011/12}$

$GSMA_{2015/16} = ABS_{2010/11} + ABS_{2011/12}$

$GSMA_{2016/17} = ABS_{2011/12}$

Where $GSMA_t$ is the gain sharing mechanism adjustment to target revenue for year *t*.

5.14E In any year where the amount of an adjustment to target revenue determined under paragraph 5.14D is a negative value, the amount of the adjustment to target revenue in that year is zero.

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 [Deleted]

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 a number 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) Subject to paragraph (d), the reward for good performance or penalty for poor performance is remunerated by applying the applicable incentive rate to the relevant Service Standard Difference (SSD) for each year of the *access arrangement period*, which is calculated as follows:

$SSD_{2009/10} = (SSB_{2009/10} - SSA_{2009/10})$

$SSD_{2010/11} = (SSB_{2010/11} - SSA_{2010/11}) - (SSB_{2009/10} - SSA_{2009/10})$

$SSD_{2011/12} = (SSB_{2011/12} - SSA_{2011/12}) - (SSB_{2010/11} - SSA_{2010/11})$

Where:

SSD_t is the service standard difference in year t;

SSB_t is the service standard benchmark in year t; and

SSA_t is the actual service performance in year t.

		Expected Performance Band			
		Expected Low	**Benchmark (SSB_t)**	**Expected High**	**Incentive Rate** $ per 0.1% CA, and $ per 0.1 SMI
Circuit Availability - CA (%)[1]	2009/10	97.6	98	98.4	- $375,000
	2010/11	97.6	98	98.4	- $375,000
	2011/12	97.6	98	98.4	- $375,000
System Minutes Interrupted - SMI (meshed network)	2009/10	7.4	9.3	11.2	$75,000
	2010/11	7.4	9.3	11.2	$75,000
	2011/12	7.4	9.3	11.2	$75,000
System Minutes Interrupted - SMI (radial network)	2009/10	1.1	1.4	1.7	$25,000
	2010/11	1.1	1.4	1.7	$25,000
	2011/12	1.1	1.4	1.7	$25,000

(c) The "Expected Low" and "Expected High" for service performance measure are shown in the table above to provide stakeholders with an indication of the expected performance band. The expected performance band is not relevant to the calculation of the reward for good performance or penalty for poor performance.

(d) Notwithstanding Western Power's actual service performance with respect to System Minutes Interrupted (meshed network) and System Minutes Interrupted (radial network), the combined maximum annual bonus or penalty with respect to these services is capped at 1% of transmission target revenue, TR_t, for that financial year, where TR_t is defined in section 5.35 of this *Access Arrangement*.

[1] It should be noted that for the service standard benchmark of circuit availability, a higher value of actual performance indicates a higher standard of service, unlike the other service standard benchmarks where a higher value of actual performance indicates a lower standard of service. For this reason the incentive rate for circuit availability is presented as a negative value.

(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 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) The reward for good performance or penalty for poor performance is remunerated by applying the applicable incentive rate to the relevant Service Standard Difference (SSD) for each year of the *access arrangement period*, which is calculated as follows:

$$SSD_{2009/10} = (SSB_{2009/10} - SSA_{2009/10})$$

$$SSD_{2010/11} = (SSB_{2010/11} - SSA_{2010/11}) - (SSB_{2009/10} - SSA_{2009/10})$$

$$SSD_{2011/12} = (SSB_{2011/12} - SSA_{2011/12}) - (SSB_{2010/11} - SSA_{2010/11})$$

Where:

SSD_t is the service standard difference in year t;

SSB_t is the service standard benchmark in year t; and

SSA_t is the actual service performance in year t.

		Expected Performance Band (± 8%)			
		Expected Low	**Benchmark (SSB_t)**	**Expected High**	**Incentive Rate** ($ per SAIDI minute)
SAIDI - CBD (Minutes)	2009/10	35	38	41	$220,000
	2010/11	35	38	41	$220,000
	2011/12	35	38	41	$220,000
SAIDI - Urban (Minutes)	2009/10	152	165	178	$220,000
	2010/11	149	162	175	$220,000
	2011/12	141	153	165	$220,000
SAIDI - Rural Short (Minutes)	2009/10	238	259	280	$8,200
	2010/11	233	253	273	$8,200
	2011/12	224	244	264	$8,200
SAIDI - Rural Long (Minutes)	2009/10	563	612	661	$8,200
	2010/11	541	588	635	$8,200
	2011/12	512	556	600	$8,200

		Expected Performance Band (± 8%)			
		Expected Low	**Benchmark (SSB_t)**	**Expected High**	**Incentive Rate** ($ per Event)
SAIFI - CBD (Events)	2009/10	0.22	0.24	0.26	$10,300,000
	2010/11	0.22	0.24	0.26	$10,300,000
	2011/12	0.22	0.24	0.26	$10,300,000
SAIFI - Urban (Events)	2009/10	1.77	1.92	2.07	$10,300,000
	2010/11	1.74	1.89	2.04	$10,300,000
	2011/12	1.68	1.83	1.98	$10,300,000
SAIFI - Rural Short (Events)	2009/10	2.87	3.12	3.37	$450,000
	2010/11	2.82	3.06	3.30	$450,000
	2011/12	2.74	2.98	3.22	$450,000
SAIFI - Rural Long (Events)	2009/10	4.60	5.00	5.40	$450,000
	2010/11	4.45	4.85	5.23	$450,000
	2011/12	4.42	4.80	5.18	$450,000

(c) The “Expected Low” and “Expected High” for service performance measure are shown in the table above to provide stakeholders with an indication of the expected performance band. The expected performance band is not relevant to the calculation of the reward for good performance or penalty for poor performance.

(d) 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 5.24B. 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 TRt ($ million real as at 30 June 2009)

	2009/10	**2010/11**	**2011/12**
TR_t	262.90	332.05	384.34

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:

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

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*.

$WACC_{pre\text{-}tax\ real}$ is 7.98%.

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 $64.5 million ($ 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. The timeframe for recovering deferred revenue will consider the price impact on users of reference services and will be subject to approval by the Authority.

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
($ million real as at 30 June 2009)

	2009/10	**2010/11**	**2011/12**
DR_t	389.01	510.49	646.77

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:

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

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*.

$WACC_{pre\text{-}tax\ real}$ is 7.98%.

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 $484.2 million ($ 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. The timeframe for recovering deferred revenue will consider the price impact on users of reference services and will be subject to approval by the Authority.

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. The business case must demonstrate to the Authority's satisfaction that:

- the proposed operating expenditure satisfies the requirements of sections 6.40 and 6.41 of the Code, as relevant; and
- the proposed capital expenditure satisfies the requirements of section 6.51A of the Code.

6 Capital Base Value and Depreciation

Capital base value

6.1 The tables below show 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		1,500.69	1,713.57	1,929.17
less Depreciation		-52.84	-57.44	-62.40
plus Capital Expenditure		265.85	274.87	280.64
less Redundant Assets		-0.13	-1.83	0.0
Closing capital base value	**1,500.69**	**1,713.57**	**1,929.17**	**2,147.41**

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		1,725.75	2,010.97	2,323.45
less Depreciation		-105.23	-110.24	-119.60
plus Capital Expenditure		394.80	426.70	580.01
less Redundant Assets		-4.35	-3.97	-3.92
Closing capital base value	**1,725.75**	**2,010.97**	**2,323.45**	**2,779.95**

6.2 [Deleted]

6.3 [Deleted]

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	2.9	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	0.8	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**	**3.8**	**3.7**

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 7.98% 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*; and

(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 Unforseen 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 and C1 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, such 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 and the arrangements for recovering this deferred revenue in the third or subsequent *access arrangement periods* 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 approach for recovering deferred revenue will 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]

Appendix 1: Applications and Queuing Policy

Appendix 2: Transfer and Relocation Policy

Appendix 3: Contributions Policy

Appendix 4: Electricity Transfer Access Contract

Appendix 5: 2009/10 Price List

Appendix 6: 2009/10 Price List Information

Appendix 7: Reference Services

Appendix 8: Explanatory notes regarding the price control arrangements

Appendix 9: Explanatory notes regarding the distribution headworks methodology