Amended Proposed Revisions to the Access Arrangement for the South West Network owned by Western Power
### Document release information

<table>
<thead>
<tr>
<th>Project name</th>
<th>Access Arrangement Revisions Submission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document number</td>
<td>DMS# 6734262v1A</td>
</tr>
<tr>
<td>Document title</td>
<td>Proposed Revisions to the Access Arrangement for the South West Interconnected Network owned by Western Power</td>
</tr>
<tr>
<td>Revision status</td>
<td>FINAL</td>
</tr>
</tbody>
</table>

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APPENDIX 1: APPLICATIONS AND QUEUING POLICY

APPENDIX 2: TRANSFER AND RELOCATION POLICY

APPENDIX 3: CONTRIBUTIONS POLICY
1 Introduction

Purpose of this document

1.0 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 The SWIN is a covered network from the Code commencement date, unless coverage has subsequently been revoked under section 3.30 of the Code.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;
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;

the details of the reference services offered by Western Power attached at Appendix 7;

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

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 Access 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:
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

3.10A 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.

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

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).
### SAIDI is defined as follows:

<table>
<thead>
<tr>
<th>Performance Indicator:</th>
<th>System Average Interruption Duration Index (SAIDI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit of measure:</strong></td>
<td>System minutes per annum</td>
</tr>
<tr>
<td><strong>Definition:</strong></td>
<td>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 <em>consumers</em> at the beginning and end of the period.</td>
</tr>
</tbody>
</table>
| **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. |

### SAIFI is defined as follows:

<table>
<thead>
<tr>
<th>Performance Indicator:</th>
<th>System Average Interruption Frequency Index (SAIFI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit of measure:</strong></td>
<td>Supply interruptions per annum</td>
</tr>
<tr>
<td><strong>Definition:</strong></td>
<td>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 <em>consumers</em> at the beginning and end of the period.</td>
</tr>
</tbody>
</table>
| **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:

<table>
<thead>
<tr>
<th></th>
<th>SWIN total</th>
<th>CBD</th>
<th>Urban</th>
<th>Rural Short</th>
<th>Rural Long</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year ending June 2010</td>
<td>230</td>
<td>38</td>
<td>165</td>
<td>259</td>
<td>612</td>
</tr>
<tr>
<td>Year ending June 2011</td>
<td>224</td>
<td>38</td>
<td>162</td>
<td>253</td>
<td>588</td>
</tr>
<tr>
<td>Year ending June 2012</td>
<td>213</td>
<td>38</td>
<td>153</td>
<td>244</td>
<td>556</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th></th>
<th>SWIN total</th>
<th>CBD</th>
<th>Urban</th>
<th>Rural Short</th>
<th>Rural Long</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year ending June 2010</td>
<td>2.50</td>
<td>0.24</td>
<td>1.92</td>
<td>3.12</td>
<td>5.00</td>
</tr>
<tr>
<td>Year ending June 2011</td>
<td>2.46</td>
<td>0.24</td>
<td>1.89</td>
<td>3.06</td>
<td>4.85</td>
</tr>
<tr>
<td>Year ending June 2012</td>
<td>2.41</td>
<td>0.24</td>
<td>1.83</td>
<td>2.98</td>
<td>4.80</td>
</tr>
</tbody>
</table>

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: \[ \frac{\text{No of Hours per Annum Circuits are Available}}{\text{Total Possible No. of Circuit Hours}} \times 100 \]

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.
<table>
<thead>
<tr>
<th><strong>Performance Indicator:</strong></th>
<th>Loss of Supply Events</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency of events where loss of supply exceeds 0.1 system minutes</td>
</tr>
<tr>
<td></td>
<td>Frequency of events where loss of supply exceeds 1.0 system minutes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Unit of measure:</strong></th>
<th>Number of events per annum</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Source of data:</strong></th>
<th>SCADA Network Status Processor (NSP), PI Server database, System Disturbance database</th>
</tr>
</thead>
</table>

| **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: |
| \[
| \sum \left( \frac{MWh \text{ unsupplied} \times 60}{MW \text{ Peak Demand}} \right)
| \]
| 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:**
\[
\text{Average outage duration} = \frac{\text{Aggregate minutes duration of all unplanned outages}}{\text{No. of events}}
\]

**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’ e.g. 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.

<table>
<thead>
<tr>
<th></th>
<th>Year ending June 2010</th>
<th>Year ending June 2011</th>
<th>Year ending June 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circuit Availability (% of total time)</td>
<td>98.0</td>
<td>98.0</td>
<td>98.0</td>
</tr>
<tr>
<td>System Minutes Interrupted (meshed network) (minutes)</td>
<td>9.3</td>
<td>9.3</td>
<td>9.3</td>
</tr>
<tr>
<td>System Minutes Interrupted (radial network) (Minutes)</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Loss of Supply Event Frequency (Number of events &gt; 0.1 System Minutes)</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Loss of Supply Event Frequency (Number of events &gt; 1 System Minutes)</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Average Outage Duration (Minutes)</td>
<td>764</td>
<td>764</td>
<td>764</td>
</tr>
</tbody>
</table>
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).

<table>
<thead>
<tr>
<th></th>
<th>Year ending June 2010</th>
<th>Year ending June 2011</th>
<th>Year ending June 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perth Metropolitan area</td>
<td>5 days</td>
<td>5 days</td>
<td>5 days</td>
</tr>
<tr>
<td>Major regional towns</td>
<td>5 days</td>
<td>5 days</td>
<td>5 days</td>
</tr>
<tr>
<td>Remote and rural towns</td>
<td>9 days</td>
<td>9 days</td>
<td>9 days</td>
</tr>
</tbody>
</table>

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 \( t \).

<table>
<thead>
<tr>
<th>Expected Performance Band</th>
<th>Incentive Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected Low</td>
<td>Benchmark (SSB)</td>
</tr>
<tr>
<td>Circuit Availability - CA (%)(^1)</td>
<td>2009/10</td>
</tr>
<tr>
<td></td>
<td>2010/11</td>
</tr>
<tr>
<td></td>
<td>2011/12</td>
</tr>
<tr>
<td>System Minutes Interrupted - SMI (meshed network)</td>
<td>2009/10</td>
</tr>
<tr>
<td></td>
<td>2010/11</td>
</tr>
<tr>
<td></td>
<td>2011/12</td>
</tr>
<tr>
<td>System Minutes Interrupted - SMI (radial network)</td>
<td>2009/10</td>
</tr>
<tr>
<td></td>
<td>2010/11</td>
</tr>
<tr>
<td></td>
<td>2011/12</td>
</tr>
</tbody>
</table>

(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:

\[
\begin{align*}
\text{SSD}_{2009/10} &= (\text{SSB}_{2009/10} - \text{SSA}_{2009/10}) \\
\text{SSD}_{2010/11} &= (\text{SSB}_{2010/11} - \text{SSA}_{2010/11}) - (\text{SSB}_{2009/10} - \text{SSA}_{2009/10}) \\
\text{SSD}_{2011/12} &= (\text{SSB}_{2011/12} - \text{SSA}_{2011/12}) - (\text{SSB}_{2010/11} - \text{SSA}_{2010/11})
\end{align*}
\]

Where:

SSD\textsubscript{t} is the service standard difference in year t;

SSB\textsubscript{t} is the service standard benchmark in year t; and

SSA\textsubscript{t} is the actual service performance in year t.
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.

---

### Expected Performance Band (± 8%)

#### Incentive Rate

<table>
<thead>
<tr>
<th>Expected Low</th>
<th>Benchmark (SSBₜ)</th>
<th>Expected High</th>
<th>Incentive Rate ($ per SAIDI minute)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAIDI - CBD</strong> (Minutes)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009/10</td>
<td>35</td>
<td>38</td>
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<tr>
<td>2010/11</td>
<td>35</td>
<td>38</td>
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<tr>
<td>2011/12</td>
<td>35</td>
<td>38</td>
<td>41</td>
</tr>
<tr>
<td><strong>SAIDI - Urban</strong> (Minutes)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009/10</td>
<td>152</td>
<td>165</td>
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<td>2010/11</td>
<td>149</td>
<td>162</td>
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<td>2011/12</td>
<td>141</td>
<td>153</td>
<td>165</td>
</tr>
<tr>
<td><strong>SAIDI - Rural Short</strong> (Minutes)</td>
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<tr>
<td>2009/10</td>
<td>238</td>
<td>259</td>
<td>280</td>
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<tr>
<td>2010/11</td>
<td>233</td>
<td>253</td>
<td>273</td>
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<tr>
<td>2011/12</td>
<td>224</td>
<td>244</td>
<td>264</td>
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<tr>
<td><strong>SAIDI - Rural Long</strong> (Minutes)</td>
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<td>2009/10</td>
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<td>612</td>
<td>661</td>
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<td>2010/11</td>
<td>541</td>
<td>588</td>
<td>635</td>
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<tr>
<td>2011/12</td>
<td>512</td>
<td>556</td>
<td>600</td>
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</table>

#### Incentive Rate

<table>
<thead>
<tr>
<th>Expected Low</th>
<th>Benchmark (SSBₜ)</th>
<th>Expected High</th>
<th>Incentive Rate ($ per Event)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAIFI - CBD</strong> (Events)</td>
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<tr>
<td>2009/10</td>
<td>0.22</td>
<td>0.24</td>
<td>0.26</td>
</tr>
<tr>
<td>2010/11</td>
<td>0.22</td>
<td>0.24</td>
<td>0.26</td>
</tr>
<tr>
<td>2011/12</td>
<td>0.22</td>
<td>0.24</td>
<td>0.26</td>
</tr>
<tr>
<td><strong>SAIFI - Urban</strong> (Events)</td>
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<tr>
<td>2009/10</td>
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<td>1.92</td>
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<td>2010/11</td>
<td>1.74</td>
<td>1.89</td>
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<tr>
<td>2011/12</td>
<td>1.68</td>
<td>1.83</td>
<td>1.98</td>
</tr>
<tr>
<td><strong>SAIFI - Rural Short</strong> (Events)</td>
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<tr>
<td>2009/10</td>
<td>2.87</td>
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<td>2010/11</td>
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<td>2.74</td>
<td>2.98</td>
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<tr>
<td><strong>SAIFI - Rural Long</strong> (Events)</td>
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<tr>
<td>2009/10</td>
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<td>2011/12</td>
<td>4.42</td>
<td>4.80</td>
<td>5.18</td>
</tr>
</tbody>
</table>
(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 (MTRt) 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, TKt, 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.
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.

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 |
| TRt | 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.

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

$$TK_t = (MTR_{t-1} - ATR_{t-1}) \times (1 + \text{WACC}_{\text{pre-tax real}})$$
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 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 to 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 $\text{MDR}_t$ is determined as follows:

$$\text{MDR}_t = \text{DR}_t + \text{TEC}_t + \text{AA#1}_t + \text{DK}_t$$

Where:

$\text{DR}_t$ 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.

<table>
<thead>
<tr>
<th>Distribution reference service revenues to be used for calculating $\text{DR}_t$ ($\text{million} \text{ real as at 30 June 2009})$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\text{DR}_t$</td>
</tr>
<tr>
<td>2009/10</td>
</tr>
<tr>
<td>389.01</td>
</tr>
</tbody>
</table>

$\text{TEC}_t$ 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.

$\text{AA#1}_t$ 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 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\textsubscript{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\textsubscript{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\textsubscript{t}, DK\textsubscript{t} and therefore MDR\textsubscript{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:

\[
DK\textsubscript{t} = (MDR\textsubscript{t-1} - ADR\textsubscript{t-1}) \times (1+WACC_{\text{pre-tax real}})
\]

Where:

- MDR\textsubscript{t-1} is the maximum regulated revenue for Western Power’s distribution network in the previous financial year.
- ADR\textsubscript{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\textsubscript{pre-tax real} is 7.98%.

For the financial year commencing on 1 July 2009, DK\textsubscript{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\textsubscript{t} will need to be estimated in the first instance, and then recalculated in the subsequent financial year when ADR\textsubscript{t-1} is known.

5.48 The correction factor, DK\textsubscript{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 to 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.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening capital base value</td>
<td>1,500.69</td>
<td>1,713.57</td>
<td>1,929.17</td>
<td></td>
</tr>
<tr>
<td>less Depreciation</td>
<td>-52.84</td>
<td>-57.44</td>
<td>-62.40</td>
<td></td>
</tr>
<tr>
<td>plus Capital Expenditure</td>
<td>265.85</td>
<td>274.87</td>
<td>280.64</td>
<td></td>
</tr>
<tr>
<td>less Redundant Assets</td>
<td>-0.13</td>
<td>-1.83</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Closing capital base value</td>
<td>1,500.69</td>
<td>1,713.57</td>
<td>1,929.17</td>
<td>2,147.41</td>
</tr>
</tbody>
</table>
Derivation of Distribution Initial Capital Base (net)  
($ million real as at 30 June 2009)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening capital base value</td>
<td>1,725.75</td>
<td>2,010.97</td>
<td>2,323.45</td>
<td></td>
</tr>
<tr>
<td>less Depreciation</td>
<td>-105.23</td>
<td>-110.24</td>
<td>-119.60</td>
<td></td>
</tr>
<tr>
<td>plus Capital Expenditure</td>
<td>394.80</td>
<td>426.70</td>
<td>580.01</td>
<td></td>
</tr>
<tr>
<td>less Redundant Assets</td>
<td>-4.35</td>
<td>-3.97</td>
<td>-3.92</td>
<td></td>
</tr>
<tr>
<td><strong>Closing capital base value</strong></td>
<td><strong>1,725.75</strong></td>
<td><strong>2,010.97</strong></td>
<td><strong>2,323.45</strong></td>
<td><strong>2,779.95</strong></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Asset Group</th>
<th>Economic Life (years) for Depreciation Purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission transformers</td>
<td>50 years</td>
</tr>
<tr>
<td>Transmission reactors</td>
<td>50 years</td>
</tr>
<tr>
<td>Transmission capacitors</td>
<td>40 years</td>
</tr>
<tr>
<td>Transmission circuit breakers</td>
<td>50 years</td>
</tr>
<tr>
<td>Transmission lines – steel towers</td>
<td>60 years</td>
</tr>
<tr>
<td>Transmission lines - wood poles</td>
<td>45 years</td>
</tr>
<tr>
<td>Transmission cables</td>
<td>55 years</td>
</tr>
<tr>
<td>Transmission metering</td>
<td>40 years</td>
</tr>
<tr>
<td>Transmission SCADA and Communications</td>
<td>34.15 years</td>
</tr>
<tr>
<td>Transmission IT&amp;T</td>
<td>16.85 years</td>
</tr>
<tr>
<td>Transmission Other, non-network assets</td>
<td>16.85 years</td>
</tr>
</tbody>
</table>

### Distribution Asset Groupings and Economic Lives for Depreciation Purposes

<table>
<thead>
<tr>
<th>Asset Group</th>
<th>Economic Life (years) for Depreciation Purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution lines - wood poles</td>
<td>41 years</td>
</tr>
<tr>
<td>Distribution lines - steel poles</td>
<td>50 years</td>
</tr>
<tr>
<td>Distribution underground cables</td>
<td>60 years</td>
</tr>
<tr>
<td>Distribution transformers</td>
<td>35 years</td>
</tr>
<tr>
<td>Distribution switchgear</td>
<td>35 years</td>
</tr>
<tr>
<td>Street lighting</td>
<td>20 years</td>
</tr>
<tr>
<td>Distribution meters and services</td>
<td>25 years</td>
</tr>
<tr>
<td>Distribution IT&amp;T</td>
<td>10.16 years</td>
</tr>
<tr>
<td>Distribution SCADA &amp; communications</td>
<td>10.16 years</td>
</tr>
<tr>
<td>Distribution Other, non-network assets</td>
<td>10.16 years</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>30 June 2010</th>
<th>30 June 2011</th>
<th>30 June 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution lines - wood poles</td>
<td>2.9</td>
<td>2.8</td>
<td>2.7</td>
</tr>
<tr>
<td>Distribution lines - steel poles</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Distribution underground cables</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Distribution transformers</td>
<td>0.8</td>
<td>0.8</td>
<td>0.7</td>
</tr>
<tr>
<td>Distribution switchgear</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Street lighting</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Distribution meters and services</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Distribution IT&amp;T</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Distribution SCADA &amp; communications</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Distribution Other, non-network</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Distribution Land &amp; Easements</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>3.8</strong></td>
<td><strong>3.8</strong></td>
<td><strong>3.7</strong></td>
</tr>
</tbody>
</table>

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 3.10A 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**

9.18A In accordance section 3.10A 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 6: 2009/10 Price List Information
Appendix 7: Reference Services
Appendix 8: Explanatory notes regarding the price control arrangements
Appendix 9: Distribution headworks methodology