
Proposed revisions to the Access Arrangement for the Western Power Network

September 2011



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1 Introduction

1.1 Purpose of this document

1.1.1 These *proposed revisions* are lodged by Western Power on 30 September 2011 for *review and approval* by the *Authority* in accordance with the processes and criteria set out in the Electricity Networks Access Code 2004, herein referred to as the *Code*. Henceforth this document is referred to as the “**access arrangement**”.

1.1.2 This *access arrangement* is an arrangement for *access* to the *Western Power Network* from the date specified in section 1.3.1 of this *access arrangement*. The *Western Power Network* is a *covered network* under the *Code*.

1.2 Definitions and interpretation

1.2.1 In sections 1 to 9 of this *access arrangement*, where a word or phrase is italicised it has the definition given to that word or phrase as described in this *access arrangement* or section 1.3 of the *Code*, unless the context requires otherwise.

1.2.2 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.

1.3 Proposed access arrangement revisions commencement date

1.3.1 This *access arrangement* is effective from 1 July 2012 or a later date in accordance with section 4.26 of the *Code*.

1.4 Revisions submission date and target revisions commencement date

1.4.1 Pursuant to section 5.31(a) of the *Code*, the *revisions submission date* for this *access arrangement* is 1 March 2016.

1.4.2 Pursuant to section 5.31(b) of the *Code*, the *target revisions commencement date* for this *access arrangement* is 1 July 2017.

1.5 Composition of this access arrangement

1.5.1 This *access arrangement* comprises this document together with:

- a) the *Standard Access Contract*, termed the Electricity Transfer Access Contract attached at Appendix A;

- b) the *Applications and Queuing Policy* attached at Appendix B;
- c) the *Contributions Policy* attached at Appendix C.1;
- d) the distribution headworks methodology attached at Appendix C.2;
- e) the distribution low voltage connection scheme methodology attached at Appendix C.3;
- f) the *Transfer and Relocation Policy* attached at Appendix D;
- g) the details of the *reference services* offered by Western Power attached at Appendix E;
- h) the *price list* attached at Appendix F.1, which is a schedule of *reference tariffs* in effect for this *access arrangement*; and
- i) the *price list information* attached at Appendix F.2, which explains how Western Power derived the elements of the proposed *price list*; and demonstrates that the *price list* complies with the *access arrangement*.

1.6 Relationship to technical rules and access arrangement information

- 1.6.1 The *technical rules* do not form part of this *access arrangement*, although the *technical rules* are relevant in determining Western Power's *target revenue*.
- 1.6.2 Western Power's revised *access arrangement information* is submitted on 30 September 2011 alongside this *access arrangement* in accordance with section 4.48 of the *Code*. The revised *access arrangement information* does not form part of this *access arrangement*.

2 Reference services

2.1 Purpose

2.1.1 Pursuant to sections 5.1(a) and 5.2 of the *Code*, this section of the *access arrangement* describes the *reference services* offered by Western Power.

2.2 Reference services

2.2.1 In this *access arrangement*:

“bi-directional service” means a *covered service* provided by *Western Power* at a *connection point* under which the user may transfer electricity into and out of the *Western Power Network* at the *connection point*.

2.2.2 *Reference services* are provided to *users* that meet and continue to meet the eligibility criteria applicable to the *reference service* provided, on the terms and conditions of the Electricity Transfer Access Contract, at the related *service standard benchmarks* and at the related *reference tariff*.

2.2.3 Western Power specifies 11 *reference services* at *exit points*:

Table 1: Reference services at exit points

Reference service	Short name
Anytime Energy (Residential) Exit Service	A1
Anytime Energy (Business) Exit Service	A2
Time of Use Energy (Residential) Exit Service	A3
Time of Use Energy (Business) Exit Service	A4
High Voltage Metered Demand Exit Service	A5
Low Voltage Metered Demand Exit Service	A6
High Voltage Contract Maximum Demand Exit Service	A7
Low Voltage Contract Maximum Demand Exit Service	A8
Street lighting Exit Service (including streetlight maintenance)	A9
Un-Metered Supplies Exit Service	A10
Transmission Exit Service	A11

2.2.4 Western Power specifies two *reference services* at *entry points*:

Table 2: Reference services at entry points

Reference service	Short name
Distribution Entry Service	B1
Transmission Entry Service	B2

2.2.5 Western Power specifies four *bi-directional services* as *reference services* at connection points:

Table 3: Bi-directional services that are reference services

Reference service name	Short name
Anytime energy (residential) bi-directional service	C1
Anytime energy (business) bi-directional service	C2
Time of use (residential) bi-directional service	C3
Time of use (business) bi-directional service	C4

2.2.6 Appendix E of this *access arrangement* provides details of each *reference service*, including:

- a description of the *reference service*;
- the *user* eligibility criteria;
- the applicable *reference tariff*;
- the applicable *standard access contract*; and
- the applicable *service standard benchmark*.

2.3 Payment by users

2.3.1 *Users* are required to pay a *charge* for *reference services* calculated by applying the related *reference tariffs*.

3 Excluded services

3.1 Purpose

- 3.1.1 This section of the *access arrangement* describes the *excluded services* offered by Western Power.

3.2 Excluded services

- 3.2.1 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 of the *Code* that one or more *services* provided by means of the *Western Power Network* are *excluded services*.

4 Service standard benchmarks

4.1 Purpose

4.1.1 Pursuant to section 5.1(c) of the *Code*, this section provides the *service standard benchmarks* applicable to the *reference services*. *Service standard benchmarks* are not applicable to *non-reference services*.

4.2 Service standard benchmarks for distribution reference services

4.2.1 For the *reference services* A1 to A10, B1 and C1 to C4, the *service standard benchmarks* are expressed in terms of System Average Interruption Duration Index (SAIDI), System Average Interruption Frequency Index (SAIFI), call centre performance and circuit availability.

4.2.2 In clauses 4.2.3 and 4.2.5 “**distribution customer**” means a *consumer* connected to the *distribution system*.

System Average Interruption Duration Index (SAIDI)

4.2.3 SAIDI is applied as follows:

Table 4: Application of SAIDI

	System Average Interruption Duration Index (SAIDI) CBD Urban Rural short Rural long
Unit of Measure	Minutes per year.
Definition	<p>Over a 12 month period, the sum of the duration of each sustained (greater than 1 minute) <i>distribution customer</i> interruption (in minutes) attributable to either or both of the <i>transmission system</i> and <i>distribution system</i> (after exclusions) divided by the number of <i>distribution customers</i> served, that is:</p> $\frac{\sum \text{Sustained } \textit{distribution customer} \textit{ interruption durations}}{\text{Number of } \textit{distribution customers} \textit{ served}}$ <p>where:</p> <ul style="list-style-type: none"> • A CBD feeder is a feeder supplying predominantly commercial, high-rise buildings, supplied by a predominantly underground <i>distribution system</i> containing significant interconnection and redundancy when compared to urban areas. • An Urban feeder is a feeder, which is not a CBD feeder with actual maximum demand over the reporting period per total high voltage feeder route length greater than 0.3 MVA/km. • A Rural Short feeder is a feeder which is not a CBD or urban feeder with a total high voltage feeder route length less than 200 km. • A Rural Long feeder is a feeder which is not a CBD or urban feeder

	System Average Interruption Duration Index (SAIDI) CBD Urban Rural short Rural long
	with a total high voltage feeder route length greater than 200 km. <ul style="list-style-type: none"> The number of <i>distribution customers</i> served is determined by averaging the start of month values for the 12 months included in the 12 month period.
Exclusions	One or more of: <ul style="list-style-type: none"> For an interruption on either or both of the <i>transmission system</i> and <i>distribution system</i>, a day on which the major event day threshold, determined in accordance with IEEE1366-2003 definitions applying the “2.5 beta method”, is exceeded. Interruptions on either or both of the <i>transmission system</i> and <i>distribution system</i> shown to be caused by a fault or other event on a third party system (for instance, without limitation, interruptions caused by an intertrip signal, generator unavailability or a consumer installation). Planned interruptions on either or both of the <i>transmission system</i> and <i>distribution system</i> caused by <i>scheduled works</i>. <i>Force majeure</i> events affecting either or both of the <i>transmission system</i> and <i>distribution system</i>.

4.2.4 The *service standard benchmarks* expressed in terms of SAIDI for the *reference services A1 to A10, B1 and C1 to C4* for each year of this *access arrangement period* are shown in the following table:

Table 5: SAIDI service standard benchmarks for reference services A1 to A10, B1 and C1 to C4

SAIDI	For each financial year ending 30 June
CBD	56
Urban	200
Rural Short	360
Rural Long	720

System Average Interruption Frequency Index

4.2.5 SAIFI is applied as follows:

Table 6: Application of SAIFI

	System Average Interruption Frequency Index (SAIFI) CBD Urban Rural short Rural long
Unit of Measure	Interruptions per year.
Definition	<p>Over a 12 month period, the number of sustained (greater than 1 minute) <i>distribution customer</i> interruptions (number) attributable to either or both of the <i>transmission system</i> and <i>distribution system</i> (after exclusions) divided by the number of distribution customers served, that is:</p> $\frac{\sum \text{Number of sustained } \textit{distribution customer} \textit{ interruptions}}{\text{Number of } \textit{distribution customers} \textit{ served}}$ <p>where:</p> <ul style="list-style-type: none"> • A CBD feeder is a feeder supplying predominantly commercial, high-rise buildings, supplied by a predominantly underground <i>distribution system</i> containing significant interconnection and redundancy when compared to urban areas. • An Urban feeder is a feeder, which is not a CBD feeder, with actual maximum demand over the reporting period per total high voltage feeder route length greater than 0.3 MVA/km. • A Rural Short feeder is a feeder which is not a CBD or urban feeder with a total high voltage feeder route length less than 200 km. • A Rural Long feeder is a feeder which is not a CBD or urban feeder with a total high voltage feeder route length greater than 200 km. • The number of <i>distribution customers</i> served is determined by averaging the start of month values for the 12 months included in the 12 month period.
Exclusions	<p>One or more of:</p> <ul style="list-style-type: none"> • For interruptions on either or both of the <i>transmission system</i> and <i>distribution system</i>, a day on which the major event day threshold, determined in accordance with IEEE1366-2003 definitions applying the “2.5 beta method”, is exceeded. • Interruptions on either or both of the <i>transmission system</i> and <i>distribution system</i> shown to be caused by a fault or other event on a third party system (for instance, without limitation interruptions caused by an intertrip signal, generator unavailability or a consumer installation). • Planned interruptions on either or both of the <i>transmission system</i> and <i>distribution system</i> caused by scheduled works. • <i>Force majeure</i> events affecting either or both of the <i>transmission system</i> and <i>distribution system</i>.

4.2.6 The *service standard benchmarks* expressed in terms of SAIFI for the *reference services A1 to A10, B1 and C1 to C4* for each year of this *access arrangement period* is shown in the following table:

Table 7: SAIFI service standard benchmarks for reference services A1 to A10, B1 and C1 to C4

SAIFI	For each financial year ending 30 June
CBD	0.40
Urban	2.30
Rural Short	4.20
Rural Long	5.70

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

Call Centre Performance

4.2.8 Call centre performance is applied as follows:

Table 8: Application of call centre performance

	Call centre performance
Unit of Measure	Percentage of calls per year.
Definition	<p>Over a 12 month period, in relation to interruptions and life threatening emergencies, percentage of calls responded to in 30 seconds or less (after exclusions), that is:</p> $\frac{\text{Number of fault calls responded to in 30 seconds or less}}{\text{Total number of fault calls}}$ <p>where:</p> <ul style="list-style-type: none"> • Number of fault calls responded to in 30 seconds or less is the number of fault calls where a caller receives confirmation regarding power interruptions in their area and related restoration information, through either: <ul style="list-style-type: none"> ○ First speaking with a person in 30 seconds or less, or ○ First receiving an automated interactive message service message in 30 seconds or less. • A fault call is a telephone call from a caller entering the fault line or life threatening emergency line. • The fault call response time commences when the postcode is automatically determined or when a valid postcode is entered by the caller or when the call is placed in the queue to be responded to by a human operator.
Exclusions	<p>One or more of:</p> <ul style="list-style-type: none"> • Calls abandoned by a caller in 4 seconds or less of their postcode being automatically determined or when a valid postcode is entered by the caller. • Calls abandoned by a caller in 30 seconds or less of the call being placed in the queue to be responded to by a human operator. • All telephone calls received on a major event day which is excluded from SAIDI and SAIFI. • A fact or circumstance beyond the control of Western Power

	Call centre performance
	affecting the ability to receive calls to the extent that Western Power could not contract on reasonable terms to provide for the continuity of service.

4.2.9 The *service standard benchmarks* expressed in terms of call centre performance for the *reference services* A1 to A10, B1 and C1 to C4 for each year of this *access arrangement period* is shown in the following table:

Table 9: Call centre performance service standard benchmarks for reference services A1 to A10, B1 and C1 to C4

	For each financial year ending 30 June
Call centre performance	75.0%

Circuit availability

4.2.10 Circuit availability is applied as follows:

Table 10: Application of circuit availability

	Circuit availability
Unit of Measure	Percentage of hours per year.
Definition	Over a 12 month period, the actual hours transmission circuits are available divided by the total possible hours available for transmission circuits (after exclusions), that is: $\frac{\text{Number of hours transmission circuits are available} \times 100}{\text{Total possible hours available for transmission circuits}}$ where: <ul style="list-style-type: none"> • A “transmission circuit” is an arrangement of primary transmission elements on the <i>transmission system</i> that is overhead lines, underground cables, and bulk transmission power transformers used to transport electricity.
Exclusions	One or more of: <ul style="list-style-type: none"> • Zone substation power transformers. • Interruptions affecting the <i>transmission system</i> shown to be caused by a fault or other event on a third party system (for instance, without limitation interruptions caused by an intertrip signal, generator unavailability or a consumer installation). • <i>Force majeure</i> events affecting the <i>transmission system</i>. • Hours exceeding 14 days for planned interruptions for major construction work.

4.2.11 The *service standard benchmarks* expressed in terms of circuit availability for the *reference services* A1 to A10, B1 and C1 to C4 for each year of this *access arrangement period* is shown in the following table:

Table 11: Circuit availability service standard benchmarks for reference services A1 to A10, B1 and C1 to C4 and A11 and B2

	For each financial year ending 30 June
Circuit availability	97.3%

4.3 Service standard benchmarks for transmission reference services

4.3.1 For the *reference services* A11 and B2, the *service standard benchmarks* are expressed in terms of circuit availability and the individual customer service measure.

Circuit availability

4.3.2 The circuit availability measure is defined in section 4.2.10 of this *access arrangement*.

4.3.3 The *service standard benchmarks* expressed in terms of circuit availability for the *reference services* A11 and B2 for this *access arrangement period* is set out in section 4.2.11 of this *access arrangement*.

Individual customer service measure

4.3.4 The individual customer service measure is applied as follows:

Table 12: Application of Individual customer service measure

	Individual customer service measure
Unit of Measure	Percentage of <i>users</i> .
Definition	Over a 12 month period, percentage of <i>users</i> procuring a <i>reference service</i> A11 or B2 (after exclusions) that have: <ul style="list-style-type: none"> (a) an account manager for the full 12 month period, and (b) an annually reviewed customer service management plan, and (c) an invitation to participate in an annual satisfaction survey
Exclusions	One or more of: <ul style="list-style-type: none"> • Where a new <i>user</i> commences procuring a <i>reference service</i> A11 or B2 during the 12 month period, the measure only applies from the time procurement commences. • If a <i>user</i> procures <i>reference service</i> A11 but the energy exited from the <i>network</i> for the 12 month period is zero. • If a <i>user</i> procures <i>reference service</i> B2 but the energy entered into the <i>network</i> for the 12 month period is zero.

4.3.5 The *service standard benchmarks* expressed in term of the individual customer service measure for the *reference services* A11 and B2 for each year of this *access arrangement period* is set out in the following table:

Table 13: Individual customer service measure service standards benchmarks for reference services A11 and B2

	For each financial year ending 30 June
Individual customer service measure	100%

4.4 Service standard benchmarks for street lighting reference services

4.4.1 For the *reference service* A9, the *service standard benchmarks* are expressed in terms of street lighting repair time.

Street lighting repair time

4.4.2 Street lighting repair time is applied as follows:

Table 14: Application of street lighting repair time

	Street lighting repair time Metropolitan area Regional area
Unit of Measure	Average number of <i>business days</i> .
Definition	<p>Over a 12 month period, average number of <i>business days</i> to repair faulty streetlights is the sum of the number of <i>business days</i> to repair each faulty streetlight divided by the number of faulty streetlights repaired (after exclusions).</p> $\frac{\sum \text{Number of } \textit{business days} \text{ to repair each faulty streetlight}}{\text{Number of faulty streetlights repaired}}$ <p>where:</p> <ul style="list-style-type: none"> • In calculating the number of <i>business days</i> to repair a faulty streetlight, the first <i>business day</i> is: <ul style="list-style-type: none"> ○ where a faulty streetlight is detected by, or reported to, Western Power on a <i>business day</i>, the next <i>business day</i> ○ where a faulty streetlight is detected by, or reported to, Western Power on a day that is not a <i>business day</i>, the second <i>business day</i> after that day • In calculating the number of <i>business days</i> to repair a faulty streetlight, the <i>business day</i> a fault is repaired is included (subject to the next point) even if the repair is effected part way through that <i>business day</i>. • In calculating the number of <i>business days</i> to repair a faulty streetlight: <ul style="list-style-type: none"> ○ where a faulty streetlight is detected by, or reported to, Western Power on a <i>business day</i> and the repair is effected on that <i>business day</i>, that <i>business day</i> is

	Street lighting repair time Metropolitan area Regional area
	<p>included as zero</p> <ul style="list-style-type: none"> ○ where a faulty streetlight is detected by, or reported to, Western Power on a day that is not a <i>business day</i> and the repair is effected on the next <i>business day</i>, that <i>business day</i> is included as zero. <ul style="list-style-type: none"> • The period of a <i>business day</i> is the time period from one midnight to the following midnight. • A faulty streetlight is defined by a recorded fault report. • Metropolitan area means the areas of the State defined in Part 1.5 of the Code of Conduct for the Supply of Electricity to Small Use Customers 2008. • Regional area means all areas in the <i>Western Power Network</i> other than the metropolitan area. <p>Note:</p> <ul style="list-style-type: none"> • if a given streetlight is the subject of more than one fault report for the same fault, then only one fault report is recorded • if a given streetlight is the subject of multiple fault reports that relate to different faults then one report relating to each distinct fault is recorded
Exclusions	<ul style="list-style-type: none"> • <i>Force majeure</i> events. • Streetlights for which Western Power is not responsible for streetlight maintenance.

4.4.3 The *service standard benchmarks* for the *reference service A9* for each year of this *access arrangement period* are set out in the following table.

Table 15: Street lighting repair time *service standard benchmark* for *reference service A9*

Region	For each financial year ending 30 June
Metropolitan area	5 days
Regional area	9 days

4.5 Exclusions

4.5.1 In each of the *service standard benchmarks* there is a definition of the measure and stated exclusions. Each exclusion is a circumstance in relation to which, when it occurs, the resulting units are not included in the measure. For example, for SAIDI, when a *force majeure* event occurs the duration of the related interruption in minutes is not included in the calculation of the measure.

4.5.2 Exclusions are usually first considered when the *Authority publishes* its *service standard performance report* under section 11.2 of the *Code*. An exclusion accepted by the *Authority* in such a report will be an exclusion for the purposes of this *access arrangement* and the *Code*.

5 Price control

5.1 Overview of price control

5.1.1 In this *access arrangement*:

“non-revenue cap services” means *non-reference services* provided by Western Power by means of the *Western Power Network* other than *non-reference services* that are provided as *revenue cap services*.

“revenue cap services” means the following *covered services* provided by Western Power by means of the *Western Power Network*:

- a) *connection service*;
- b) *exit service*;
- c) *entry service*;
- d) *bi-directional service* (within the meaning of section 2.2.1 of this *access arrangement*); and
- e) the *metering services* provided ancillary to the *services* in paragraphs (a) to (d) that are defined as standard metering services in the most recent Model Service Level Agreement approved by the *Authority* under the Electricity Industry Metering Code 2005; and
- f) *streetlight maintenance*.

5.1.2 In accordance with sections 6.1 and 6.2(c) of the *Code*:

- a) a revenue cap will apply to *revenue cap services* that is set by reference to Western Power’s *approved total costs*; and
- b) charges for *non-revenue cap services* will be:
 - i. negotiated in good faith;
 - ii. consistent with the *Code objective*; and
 - iii. reasonable.

5.1.3 Separate revenue caps will apply in respect of the *revenue cap services* provided by means of the *transmission system* and the *distribution system*. The establishment of each revenue cap has been made by reference to Western Power’s *approved total costs* for *revenue cap services* for each of the *transmission system* and the *distribution system*.

5.1.4 The calculation of Western Power’s *approved total costs* for *revenue cap services* has been undertaken in accordance with the building block method for each of the *transmission system* and the *distribution system*, as contained in the revenue model.

5.1.5 Despite section 1.3.1 of this *access arrangement*, the *price control* and all incentive and cost recovery mechanisms described in this *access arrangement* operate from 1 July 2012, and therefore references to *access arrangement period* should be interpreted accordingly.

5.2 Capital base value

5.2.1 The tables below show the derivation of the *capital base* value as at 30 June 2012.

Table 16: Derivation of Transmission Initial Capital Base (net) (\$ million real as at 30 June 2012)

Financial year ending:	30 June 2009	30 June 2010	30 June 2011	30 June 2012
Opening capital base value		2,350.0	2,502.9	2,575.5
less depreciation		75.3	80.5	91.1
less accelerated depreciation		0.0	0.0	0.0
plus new facilities investment (net of capital contributions and asset disposals)		228.2	153.1	221.6
plus investment from prior periods				135.0
Closing capital base value	2,350.0	2,502.9	2,575.5	2,840.8

Table 17: Derivation of Distribution Initial Capital Base (net) (\$ million real as at 30 June 2012)

Financial year ending:	30 June 2009	30 June 2010	30 June 2011	30 June 2012
Opening capital base value		3,042.3	3,338.4	3,625.2
less depreciation		154.7	168.2	186.0
less accelerated depreciation		4.2	4.1	4.0
plus new facilities investment (net of capital contributions and asset disposals)		455.1	459.1	619.2
plus investment from prior periods				202.8
Closing capital base value	3,042.3	3,338.4	3,625.2	4,257.2

5.2.2 The *capital base* value as at 30 June 2012 reflects a forecast of *new facilities investment* for the year ending 30 June 2012 (2011/12) and a forecast of inflation of 2.5% for the year ending 30 June 2012. To ensure that Western Power is remunerated only for actual *new facilities investment* that is undertaken in the year ending 30 June 2012 and actual inflation, the opening *capital base* at the commencement of the next *access arrangement period* will be adjusted and the *target revenue* in the next *access arrangement period* will be adjusted as follows:

- a) the *capital base* value at the commencement of the next *access arrangement period* will be adjusted (in real terms) for any difference between the actual *new facilities investment* and the forecast of *new facilities investment* for the 2011/12 year that was used to establish the opening *capital base* value at 30 June 2012 (the 2011/12 new facilities investment forecast error);
- b) the *capital base* value at the commencement of the next *access arrangement period* will also be adjusted for any difference between the actual inflation (using the *CPI*) and the forecast inflation for the 2011/12

year that was used to establish the opening *capital base* value at 30 June 2012 (the 2011/12 inflation forecast error); and

- c) an adjustment to the *target revenue* in the next *access arrangement period* will be made to compensate Western Power (or *users*) for the revenue foregone (or additional revenue recovered) by Western Power over this *access arrangement period* in respect of the 2011/12 new facilities investment forecast error and the 2011/12 inflation forecast error.

5.2.3 For the avoidance of doubt:

- a) under the arrangements set out in section 5.2.2 of this *access arrangement* the *target revenue* for this *access arrangement period* will not be adjusted for the 2011/12 new facilities investment forecast error or the 2011/12 inflation forecast error;
- b) the intended effect of the arrangements set out in section 5.2.2 of this *access arrangement* is to hold Western Power and *users* financially neutral in the event that there is a 2011/12 new facilities investment forecast error or 2011/12 inflation forecast error by taking account of:
 - i. the effects of actual inflation; and
 - ii. the time value of money as reflected by Western Power's *weighted average cost of capital* for the *Western Power Network*and
- c) adjustments made pursuant to section 5.2.2 of this *access arrangement* will have the effect of ensuring that the total revenue recovered by Western Power over this *access arrangement period* and subsequent *access arrangement periods* will be equivalent in present value terms to the amount that would be recovered if there were no 2011/12 new facilities investment forecast errors and no 2011/12 inflation forecast error.

5.3 Depreciation

5.3.1 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.

5.3.2 The depreciation provision contained in the *target revenue* for each year of this *access arrangement period* is calculated using:

- a) the straight line depreciation method;
- b) the existing weighted average lives for each of the *transmission system* and *distribution system* that comprise the *capital base* value as at 30 June 2012; and
- c) for *new facilities investment* forecast for this *access arrangement period* the weighted average lives for each of the *transmission system* and *distribution system* based on the asset lives for each group of *network assets* as set out in the following tables:

Table 18: 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	11 years
Transmission IT	6 years
Transmission other, non-network assets	16.85 years

Table 19: 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	6 years
Distribution SCADA & communications	10.16 years
Distribution other, non-network	10.16 years

5.3.3 Western Power is not proposing any accelerated depreciation in this *access arrangement period* in relation to *network assets* for the *transmission system*.

5.3.4 In respect of *network assets* for the *distribution system*, Western Power will apply accelerated depreciation in respect of those *network assets* that will be decommissioned as a result of the State Underground Power Program undertaken by Western Power on behalf of the Western Australian government.

Table 20: Distribution accelerated depreciation by asset class (\$ million real as at 30 June 2012)

Financial year ending:	30 June 2013	30 June 2014	30 June 2015	30 June 2016	30 June 2017
Distribution lines - wood poles	2.6	0.3	0.0	0.0	0.0
Distribution lines - steel poles	0.0	0.0	0.0	0.0	0.0
Distribution underground cables	0.0	0.0	0.0	0.0	0.0
Distribution transformers	0.7	0.1	0.0	0.0	0.0
Distribution switchgear	0.2	0.0	0.0	0.0	0.0
Street lighting	0.0	0.0	0.0	0.0	0.0
Distribution meters and services	0.0	0.0	0.0	0.0	0.0
Distribution IT	0.0	0.0	0.0	0.0	0.0
Distribution SCADA & communications	0.0	0.0	0.0	0.0	0.0
Distribution Other, non-network	0.0	0.0	0.0	0.0	0.0
Distribution Land & Easements	0.0	0.0	0.0	0.0	0.0
TOTAL	3.4	0.5	0.0	0.0	0.0

5.3.5 Subject to section 5.3.6 of this *access arrangement*, the depreciation of the opening *capital base* at the commencement of the next *access arrangement period* will be based on the forecast depreciation contained in the *target revenue* for this *access arrangement period*.

5.3.6 For the categories of *new facilities investment* set out in section 7.3.7 of this *access arrangement*, the depreciation of the opening *capital base* at the commencement of the next *access arrangement period* will be determined based on a straight line basis using the actual *new facilities investment* over this *access arrangement period* and the economic lives detailed in Table 18 and Table 19.

5.4 Weighted average cost of capital

5.4.1 Pursuant to section 6.64 of the *Code* the *weighted average cost of capital* for the *Western Power Network* is 8.82% real pre-tax.

5.5 Deferred revenue from the second access arrangement period

5.5.1 Western Power deferred the recovery of some transmission and distribution revenue from the second *access arrangement period* to the third or subsequent *access arrangement periods*.

5.5.2 The tables below show the derivation of the deferred revenue value as at 30 June 2012 to be recovered so that Western Power is financially neutral compared to a situation where revenue deferral had not occurred.

Table 21: Derivation of transmission system deferred revenue (\$ million real as at 30 June 2012)

Financial year ending:	30 June 2009	30 June 2010	30 June 2011	30 June 2012
Opening deferred revenue value		70.5	76.2	82.2
plus time value of money		5.6	6.1	6.6
Closing deferred revenue value	70.5	76.2	82.2	88.8

Table 22: Derivation of distribution system deferred revenue (\$ million real as at 30 June 2012)

Financial year ending:	30 June 2009	30 June 2010	30 June 2011	30 June 2012
Opening deferred revenue value		529.9	572.2	617.9
plus time value of money		42.3	45.7	49.3
Closing deferred revenue value	529.9	572.2	617.9	667.2

5.5.3 Western Power will recover the deferred revenue amounts detailed in section 5.5.2 of this *access arrangement* as a real annuity amount over:

- a) a five year period for the *transmission system* deferred revenue commencing 1 July 2012; and
- b) a five year period for the *distribution system* deferred revenue commencing 1 July 2012.

The interest rate applicable for the calculation of the real annuity during this *access arrangement period* is the *weighted average cost of capital* for the *Western Power Network* as set out in section 5.4.1 of this *access arrangement*.

5.5.4 The amounts that will be added to the *target revenue* for the *transmission system* and *distribution system* and recovered during this *access arrangement period* are detailed in the table below.

Table 23: Amount to be added to the target revenue due to the recovery of deferred revenue (\$ million real as at 30 June 2012)

Financial year ending:	30 June 2013	30 June 2014	30 June 2015	30 June 2016	30 June 2017
Transmission system	22.7	22.7	22.7	22.7	22.7
Distribution system	170.7	170.7	170.7	170.7	170.7

5.5.5 The deferred revenue value as at 30 June 2012 reflects a forecast of inflation of 2.5% for the year ending 30 June 2012. To ensure that Western Power is remunerated only for actual inflation, the *target revenue* in the next *access arrangement period* will be adjusted to compensate Western Power (or users) for the revenue foregone (or additional revenue recovered) by Western Power over this *access arrangement period* in respect of the 2011/12 inflation forecast error.

5.6 Transmission system revenue cap for revenue cap services

- 5.6.1 The *transmission system revenue cap for revenue cap services* determines the maximum transmission *revenue cap service* revenue (MTR_t) for Western Power's *transmission system* for each financial year t . Western Power will use its reasonable endeavours to ensure that the actual transmission *revenue cap service* revenue in financial year t is within a reasonable margin of MTR_t .
- 5.6.2 The operation of the correction factor, TK_t , as described in sections 5.6.7 and 5.6.8 of this *access arrangement* will ensure that the MTR in financial year t is adjusted for any shortfall or over-recovery of actual transmission *revenue cap service* revenue compared to the MTR in preceding years.
- 5.6.3 For the purposes of this *transmission system revenue cap for revenue cap services*, Western Power's actual *transmission system* revenue in financial year t is transmission revenue earned in relation to the provision of *revenue cap services* in financial year t , subject to section 5.6.4 of this *access arrangement*. Where a *revenue cap service* is provided jointly by Western Power's *transmission system* and *distribution system*, the revenue earned must be allocated between the systems in a fair and reasonable manner.
- 5.6.4 Revenue received by Western Power for *excluded services*, *non-revenue cap services* and *capital contributions* will not be treated as actual revenue for the purposes of this *transmission system revenue cap for revenue cap services*.
- 5.6.5 Despite section 1.3.1 of this *access arrangement* the *transmission system revenue cap for revenue cap services* commences on 1 July 2012. This revenue cap applies annually on a financial year basis for the duration of this *access arrangement*.
- 5.6.6 For this *access arrangement period*, the maximum transmission *revenue cap service* revenue MTR_t is determined as follows:

$$MTR_t = TR_t + TAA2_t + TK_t$$

where:

TR_t is the dollar amount for the financial year t calculated from the dollar amounts (expressed in 30 June 2012 prices) set out in the table below. For the avoidance of doubt, the dollar amounts set out in the table below include the amounts due to the recovery of deferred revenue detailed in section 5.5.4 of this *access arrangement* for the *transmission system*.

Table 24: Transmission revenue cap service revenues to be used for calculating TR_t (\$ million real as at 30 June 2012)

Financial year ending:	30 June 2013	30 June 2014	30 June 2015	30 June 2016	30 June 2017
TR_t	486.5	523.7	559.2	597.3	638.2

$TAA2_t$ is a positive or negative amount for the financial year t calculated to correct for any errors in the amounts included in the calculation of TR_t to give effect to the following adjustments (if applicable) arising from the operation of the previous *access arrangement*:

- Adjusting *target revenue* for unforeseen events;
- Adjusting *target revenue* for technical rule changes;
- *Investment adjustment mechanism*;
- *Gain sharing mechanism*;
- *Service standards adjustment mechanism*; and
- D-factor.

TAA_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 5.6.6 of this *access arrangement*. Western Power will provide model outputs to the *Authority* to demonstrate that the above adjustments have been made in accordance with the previous *access arrangement*.

TK_t is the correction factor calculated in accordance with sections 5.6.7 and 5.6.8 of this *access arrangement*.

For the purpose of 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 most recent December quarter compared to the December quarter in the previous year.

5.6.7 For financial years ending on 30 June 2013 to 30 June 2017:

$$TK_t = \frac{(FTR_{t-2} - ATR_{t-2}) * (1+WACC_{pre-tax real})^2 + (MTR_{t-1} - FTR_{t-1}) * (1+WACC_{pre-tax real})}{(1+WACC_{pre-tax real})}$$

where:

FTR_{t-2} is the forecast transmission *revenue cap services* revenue in the financial year t-2 as calculated in the financial year t-2.

ATR_{t-2} is the actual transmission *revenue cap services* revenue in the financial year t-2 as defined in accordance with section 5.6.3 of this *access arrangement*.

MTR_{t-1} is the maximum *revenue cap services* revenue for Western Power's *transmission system* in the financial year t-1.

FTR_{t-1} is the forecast transmission *revenue cap services* revenue in the financial year t-1.

WACC_{pre-tax real} is the *weighted average cost of capital* for the *Western Power Network* as detailed in section 5.4.1 of this *access arrangement*.

This formula reflects 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-2} is known. Where t is the financial year ending on 30 June 2012, TK_t will be calculated in accordance with the previous *access arrangement* adjusted to leave Western Power financially neutral taking account of:

- a) the effects of inflation; and
- b) the time value of money as reflected by Western Power's *weighted average cost of capital* for the *Western Power Network*.

5.6.8 The correction factor, TK_t, will also apply:

- a) in the first year of the next *access arrangement period* to adjust for any difference between maximum transmission *revenue cap services* revenue and forecast transmission *revenue cap services* revenue, in relation to the financial year ending on 30 June 2017 and for any difference between forecast transmission *revenue cap services* revenue and actual transmission *revenue cap services* revenue, in relation to the financial year ending on 30 June 2016; and
- b) in the second year of the next *access arrangement period* to adjust for any difference between forecast transmission *revenue cap services* revenue and actual transmission *revenue cap services* revenue, in relation to the financial year ending on 30 June 2017.

5.7 Distribution system revenue cap for revenue cap services

- 5.7.1 The *distribution system* revenue cap for *revenue cap services* determines the maximum distribution *revenue cap service* revenue (MDR_t) for Western Power's *distribution system* for each financial year t . Western Power will use its reasonable endeavours to ensure that the actual distribution *revenue cap service* revenue in financial year t is within a reasonable margin of MDR_t .
- 5.7.2 The operation of the correction factor, DK_t , as described in sections 5.7.7 and 5.7.8 of this *access arrangement* will ensure that the MDR in financial year t is adjusted for any shortfall or over-recovery of actual distribution *revenue cap service* revenue compared to the MDR in preceding years.
- 5.7.3 For the purposes of this *distribution system* revenue cap, Western Power's actual *distribution system* revenue in financial year t is distribution revenue earned in relation to the provision of *revenue cap services* in financial year t , subject to section 5.7.4 of this *access arrangement*. Where a *revenue cap service* is provided jointly by Western Power's *transmission system* and *distribution system*, the revenue earned must be allocated between the systems in a fair and reasonable manner.
- 5.7.4 Revenue received by Western Power for *excluded services*, *non-revenue cap services* and *capital contributions* will not to be treated as actual revenue for the purposes of this *distribution system* revenue cap for *revenue cap services*.
- 5.7.5 Despite section 1.3.1 of this *access arrangement* the *distribution system* revenue cap for *revenue cap services* commences on 1 July 2012. This revenue cap applies annually on a financial year basis for the duration of this *access arrangement*.
- 5.7.6 For this *access arrangement period*, the maximum regulated distribution revenue MDR_t is determined as follows:
- $$MDR_t = DR_t + TEC_t + DAA2_t + DK_t$$
- where:
- DR_t** is the dollar amount for the financial year t calculated from the dollar amounts (expressed in 30 June 2012 prices) set out in the table below. For the avoidance of doubt, the dollar amounts set out in the table below

include the amounts due to the recovery of deferred revenue detailed in section 5.5.4 of this *access arrangement* for the *distribution system*.

Table 25: Distribution revenue cap service revenues to be used for calculating DR_t (\$ million real as at 30 June 2012)

Financial year ending:	30 June 2013	30 June 2014	30 June 2015	30 June 2016	30 June 2017
DR _t	903.7	1,081.7	1,289.1	1,530.5	1,811.8

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

DAA2_t is a positive or negative amount for the financial year t calculated to correct for any errors in the amounts included in the calculation of DR_t to give effect to the following adjustments (if applicable) arising from the operation of the previous *access arrangement*:

- Adjusting *target revenue* for unforeseen events;
- Adjusting *target revenue* for technical rule changes;
- *Investment adjustment mechanism*;
- *Gain sharing mechanism*
- *Service standards adjustment mechanism*; and
- D-factor.

DAA2_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 5.7.6 of this *access arrangement*. Western Power will provide model outputs to the *Authority* to demonstrate that the above adjustments have been made in accordance with the previous *access arrangement*.

DK_t is the correction factor calculated in accordance with sections 5.7.7 and 5.7.8 of this *access arrangement*.

For the purpose of 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 most recent December quarter compared to the December quarter in the previous year.

5.7.7 For financial years ending on 30 June 2013 to 30 June 2017:

$$DK_t = (FDR_{t-2} - ADR_{t-2}) * (1+WACC_{pre-tax real})^2 + (MDR_{t-1} - FDR_{t-1}) * (1+WACC_{pre-tax real})$$

where:

FDR_{t-2} is the forecast *distribution revenue cap services* revenue in the financial year t-2 as calculated in the financial year t-2.

ADR_{t-2} is the actual *revenue cap service* distribution revenue in the financial year t-2 as defined in accordance with section 5.7.3 of this *access arrangement*.

MDR_{t-1} is the maximum *revenue cap service* revenue for Western Power's *distribution system* in the financial year t-1.

FDR_{t-1} is the forecast distribution *revenue cap services* revenue in the financial year t-1.

WACC_{pre-tax real} is the *weighted average cost of capital* for the *Western Power Network* as detailed in section 5.4.1 of this *access arrangement*.

This formula reflects 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-2} is known. Where t is the financial year ending on 30 June 2012, DK_t will be calculated in accordance with the previous *access arrangement* adjusted to leave Western Power financially neutral taking account of:

- a) the effects of inflation; and
- b) the time value of money as reflected by Western Power's *weighted average cost of capital* for the *Western Power Network*.

5.7.8 The correction factor, DK_t, will also apply:

- a) in the first year of the next *access arrangement period* to adjust for any difference between maximum distribution *revenue cap services* revenue and forecast distribution *revenue cap services* revenue, in relation to the financial year ending on 30 June 2017 and for any difference between forecast distribution *revenue cap services* revenue and actual distribution *revenue cap services* revenue, in relation to the financial year ending on 30 June 2016; and
- b) in the second year of the next *access arrangement period* to adjust for any difference between forecast distribution *revenue cap services* revenue and actual distribution *revenue cap services* revenue, in relation to the financial year ending on 30 June 2017.

6 Pricing methods, price lists and price information

6.1 Purpose

6.1.1 Pursuant to section 5.1(e) and chapter 7 of the *Code*, this section describes the *pricing methods* applied by Western Power.

6.2 Network pricing objectives

6.2.1 Western Power's *pricing methods* are designed to achieve the objectives set out in sections 7.3 and 7.4 of the *Code*.

6.2.2 In accordance with the objectives set out in sections 7.3 and 7.4 of the *Code*, Western Power's *pricing methods* seeks to recover the costs of providing *reference services* from *users* in a manner that is simple, practical and equitable.

6.3 Overview of pricing methods

6.3.1 *Reference tariffs* are derived from an analysis of the cost of *reference service* provision which entails:

- identifying the costs of providing *reference services*;
- allocating the costs of providing *reference services* to particular customer groups;
- translating the costs of serving particular customer groups to the costs of providing *reference tariffs*; and
- determining a structure of *reference tariffs* in a manner that reflects the underlying cost structure, in accordance with section 7.6 of the *Code*.

6.3.2 The costs relating to *reference services* A1 to A10 and C1 to C4 are allocated so that these costs can determine the relevant *reference tariff* in a cost reflective manner.

6.3.3 *Reference tariffs* for *reference services* A11, B1 and B2 are location-specific and are published for each electrical node.

6.4 Price list and price list information

6.4.1 The *price list* in respect of the *pricing year* ending on 30 June 2013 is attached at Appendix F.1. The *price list information* for this *price list* is attached at Appendix F.2.

6.4.2 The *price list* is to be updated in accordance with Chapter 8 of the *Code*. The *pricing years* for this *access arrangement* period are defined in the table below:

Table 26: Pricing years for this access arrangement period

Pricing year	Start date	End date
1	Effective date under section 1.3.1 of this <i>access arrangement</i>	30 June 2013
2	1 July 2013	30 June 2014
3	1 July 2014	30 June 2015
4	1 July 2015	30 June 2016
5	1 July 2016	30 June 2017

6.4.3 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*).

6.5 Pricing methods

6.5.1 This section of the *access arrangement* explains how the *pricing methods* comply with sections 7.3 and 7.4 of the *Code*. In accordance with the *Code* requirements, the *price list information* provided as Appendix F.2 to this *access arrangement* explains the *pricing methods* that underpinned the development of *reference tariffs* for this *access arrangement period*.

Recovery of forward-looking efficient costs of providing *reference services*

6.5.2 In accordance with section 7.3(a) of the *Code*, *reference tariffs* are designed to recover the forward-looking efficient costs of providing *reference services*. Further information is provided in the *price list information*, Appendix F.2 to this *access arrangement*.

6.5.3 *Non-revenue cap services* revenue is recovered on a fee-for-service basis.

6.5.4 *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*.**

6.5.5 In accordance with section 7.3(b)(i) and (ii) of the *Code*, *reference tariffs* are set to at least recover the *incremental cost of service provision*, but to be less than the *stand-alone cost of service provision*. Further information is provided in the *price list information*, Appendix F.2 to this *access arrangement*.

Charges paid by different *users* of a *reference service*

- 6.5.6 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*.
- 6.5.7 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* for *reference services* A5, A6, A7, A8, A11, B1 and B2 vary with location. Within the requirements of section 7.4(a) and 7.7 of the *Code*, these components reflect the differences in the average cost of different *users* of the same *reference service*. Further information is provided in the *price list information*, Appendix F.2 to this *access arrangement*.

Reasonable requirements of *users*

- 6.5.8 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 *reference tariffs* through a consultative process that involved Government and industry stakeholders. Most *reference 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 likely annual changes

- 6.5.9 In accordance with section 7.4(c) of the *Code*, *users* can predict the likely annual changes in *reference tariffs*. All *reference tariffs* are specified for the first year of the *access arrangement*. For the remainder of this *access arrangement period* rebalancing of *reference tariffs* is constrained by the imposition of side constraints on annual revenue movements. In addition, the revenue caps have been smoothed across this *access arrangement period* to facilitate smooth price movements.

Avoidance of price shock

- 6.5.10 The *transmission system* and *distribution system* revenue caps for *revenue cap services* have been smoothed across this *access arrangement period* so that price movements will be smoothed from year to year.
- 6.5.11 In accordance with section 7.4(d) of the *Code*, rebalancing of *reference tariffs* is constrained by the imposition of side constraints on annual revenue movements.
- 6.5.12 To constrain *reference tariff* rebalancing the maximum change in *reference tariff* revenue for the *transmission system* from each *reference tariff* when the *price list* is updated is:

$$\frac{\sum_{y=1}^n p_t^{xy} q_t^{xy}}{\sum_{y=1}^n p_{t-1}^{xy} q_{t-1}^{xy}} \leq (1 + CPI_t)(1 - TX_t) + B'_t + 0.02$$

where:

a given *reference tariff* x , has up to n tariff components, and where:

t is the financial year (being a financial year after the financial year ending on 30 June 2013) in which the *reference tariffs* as varied will apply;

$t - 1$ is the financial year immediately preceding financial year t (being a financial year after the financial year ending on 30 June 2012);

p_{t-1}^{xy} is the price being charged in the financial year $t - 1$ for component y of a given *reference tariff* x ;

p_t^{xy} is the proposed price for component y of a given *reference tariff* x in financial year t ;

q_t^{xy} is the quantity of component y of a given *reference tariff* x that is forecast to be sold in financial year t ;

q_{t-1}^{xy} is the estimated quantity of component y of a given *reference tariff* x that was sold in financial year $t - 1$;

CPI_t is the percentage increase in the *CPI* data relating to the most recent December quarter compared to the December quarter in the previous year;

TX_t is the annual percentage change in TR_t and is determined to be:

Table 27: TX_t

Financial year ending:	30 June 2014	30 June 2015	30 June 2016	30 June 2017
TX _t	-7.6%	-6.8%	-6.8%	-6.8%

B'_t is the annual correction factor in financial year t determined as follows:

$$B'_t = \frac{TK_t + TAA2_t}{TR'_t}$$

TK_t is as defined in section 5.6.6 of this *access arrangement*;

$TAA2_t$ is as defined in section 5.6.6 of this *access arrangement*;

TR'_t is TR_t (as set out in section 5.6.6 of this *access arrangement*), converted to nominal dollars.

6.5.13 To constrain *tariff* rebalancing the maximum change in *reference tariff* revenue for the *distribution system* from each *reference tariff* when the *price list* is updated is:

$$\frac{\sum_{y=1}^n p_t^{xy} q_t^{xy}}{\sum_{y=1}^n p_{t-1}^{xy} q_{t-1}^{xy}} \leq (1 + CPI_t)(1 - DX_t) + A'_t + 0.02$$

where:

a given *reference tariff* x , has up to n tariff components, and where:

t is the financial year (being a financial year after the financial year ending on 30 June 2013) in which the *reference tariffs* as varied will apply;

$t - 1$ is the financial year immediately preceding financial year t (being a financial year after the financial year ending on 30 June 2012);

p_{t-1}^{xy} is the price being charged in the financial year $t - 1$ for component y of a given *reference tariff* x ;

p_t^{xy} is the proposed price for component y of a given *reference tariff* x in financial year t ;

q_t^{xy} is the quantity of component y of a given *reference tariff* x that is forecast to be sold in financial year t ;

q_{t-1}^{xy} is the estimated quantity of component y of a given *reference tariff* x that was sold in financial year $t - 1$;

CPI_t is the percentage increase in the *CPI* data relating to the most recent December quarter compared to the December quarter in the previous year;

DX_t is the annual percentage change in DR_t and is determined to be:

Table 28: DX_t

Financial year ending:	30 June 2014	30 June 2015	30 June 2016	30 June 2017
DX_t	-19.7%	-19.2%	-18.7%	-18.4%

A'_t is the annual correction factor in financial year t determined as follows where Western Power has r *reference tariffs* with n tariff components:

$$A'_t = \frac{DK_t + DAA2_t + TEC_t}{(1 + CPI_t)(1 - DX_t) \sum_{x=1}^r \sum_{y=1}^n p_{t-1}^{xy} q_t^{xy}}$$

DK_t is as defined in section 5.7.6 of this *access arrangement*;

$DAA2_t$ is as defined in section 5.7.6 of this *access arrangement*;

TEC_t is as defined in section 5.7.6 of this *access arrangement*.

Tariff components

6.5.14 In accordance with section 7.6 of the *Code*, *reference tariffs* have been designed so that the *incremental cost of service provision* is to be recovered by tariff components that vary with usage, and the costs in excess of the *incremental cost of service provision* are to be recovered through tariff components that do not vary with usage. Further information is provided in the *price list information*, Appendix F.2 to this *access arrangement*.

6.6 Policy on prudent discounting

6.6.1 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*.

6.6.2 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*.

6.6.3 Western Power may offer a prudent discount if the existing *user* or *applicant* seeking access to the *Western Power Network* 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*.

6.6.4 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.

6.6.5 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*.

6.7 Policy on discounts for distributed generation

6.7.1 In accordance with section 7.10 of the *Code*, Western Power will offer to a *user* who connects *distributed generating plant* to the *Western Power Network*, 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 *Western Power Network* 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*.

6.7.2 The amount of the total *discount* available under section 6.7.1 of this *access arrangement* 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 6.7.2 of this *access arrangement* is greater than zero.

6.7.3 The *discount* calculated in accordance with section 6.7.2 of this *access arrangement* will be calculated in present value terms and, using the *weighted average cost of capital* for the *Western Power Network* as set out in section 5.4.1 of this *access arrangement*, 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.

7 Adjustments to target revenue in the next access arrangement period

7.1 Adjusting target revenue for unforeseen events

7.1.1 If a *force majeure* event occurs which results in Western Power incurring unrecovered costs (within the meaning of the *Code*) during this *access arrangement period* then Western Power will, as part of its *proposed revisions* 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) the unrecovered costs borne, or an estimate of the unrecovered costs likely to be borne, by Western Power during this *access arrangement period* as a result of the occurrence of the *force majeure* event.

7.1.2 Pursuant to sections 6.6 to 6.8 of the *Code*, an amount will be added to the *target revenue* for the next *access arrangement period* in respect of the unrecovered costs relating to a *force majeure* event which occurred in this *access arrangement period*.

7.1.3 The addition to *target revenue* in the next *access arrangement period* must leave Western Power financially neutral given the timing of when Western Power incurred any unrecovered costs by taking account of:

- a) the effects of inflation; and
- b) the time value of money as reflected by Western Power's *weighted average cost of capital* for the *Western Power Network*.

7.1.4 A *force majeure* event includes but is not limited to any costs arising from the introduction of any scheme or mechanism with respect, directly or indirectly, to emissions of greenhouse gases and with respect to any activity including pricing, reduction, cessation, offset and sequestration (including the Carbon Pricing Mechanism announced by the Commonwealth in February 2011), full retail contestability, and the mandated roll-out of Advanced Interval Meters to the extent that such costs were not included in the calculation of *target revenue* for this *access arrangement period* or otherwise addressed through the *trigger event* provisions in section 8 of this *access arrangement*.

7.2 Adjusting target revenue for technical rule changes

7.2.1 If the *technical rules* are amended during this *access arrangement period*, Western Power will, as part of its *proposed revisions* 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 *non-capital costs* and *new facilities investment* for this *access arrangement period*; and

- b) the costs (or cost savings) incurred, or an estimate of the costs (or cost savings) likely to be incurred, by Western Power as a result of that *technical rule* change.

- 7.2.2 Pursuant to sections 6.9 to 6.12 of the *Code*, if the technical rule change leads to a cost increase, an amount will be added to the *target revenue* for the next *access arrangement period*.
- 7.2.3 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 next *access arrangement period*.
- 7.2.4 The adjustment to *target revenue* in the next *access arrangement period* must leave Western Power financially neutral given the timing of when Western Power incurred any costs or received cost savings as a result of the technical rule change by taking account of:
- a) the effects of inflation; and
 - b) the time value of money as reflected by Western Power's *weighted average cost of capital* for the *Western Power Network*.

7.3 Investment adjustment mechanism

- 7.3.1 In accordance with sections 6.13 to 6.18 of the *Code*, an *investment adjustment mechanism* applies in relation to this *access arrangement*.
- 7.3.2 An amount will be added to, or deducted from, the *target revenue* for the next *access arrangement period* in accordance with the *investment adjustment mechanism* set out below.
- 7.3.3 The investment adjustment mechanism will apply separately to each of:
- a) *new facilities investment* for the *transmission system*; and
 - b) *new facilities investment* for the *distribution system*.
- 7.3.4 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 any *investment difference* in this *access arrangement period* in relation to the categories of *new facilities investment* specified in section 7.3.7 of this *access arrangement*. In order to give effect to this purpose, the *investment adjustment mechanism* must take account of:
- a) the effects of inflation;
 - b) the time value of money as reflected by Western Power's *weighted average cost of capital* for the *Western Power Network*; and
 - c) the *capital-related costs* due to any *investment difference* in this *access arrangement period*.
- 7.3.5 Given the requirements of the *investment adjustment mechanism* as described in section 7.3.4 of this *access arrangement*, Western Power's

approach to calculating the *capital-related costs* due to any *investment difference* 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 *new facilities investment* categories that are subject to the *investment adjustment mechanism*); and
- b) the *target revenue* that actually applied in this *access arrangement period*.

7.3.6 The amount under section 7.3.2 of this *access arrangement* is equal to the present value of the difference calculated under section 7.3.5 of this *access arrangement*.

7.3.7 The categories that are used in calculating the *investment difference* are *new facilities investment*:

- a) arising from the connection of new generation capacity to the *transmission system* or *distribution system* from 1 July 2012;
- b) arising from the connection of new *load* to the *transmission system* or *distribution system* from 1 July 2012;
- c) in relation to all *augmentations* to provide additional capacity to the *transmission system* or *distribution system* for the provision of *covered services* from 1 July 2012;
- d) undertaken for *augmentation* of the *distribution system* under the rural power improvement program; and
- e) undertaken for *augmentation* of the *distribution system* under the state underground power program.

7.4 Gain sharing mechanism and efficiency and innovation benchmarks

7.4.1 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*.

7.4.2 Subject to section 7.4.3 of this *access arrangement*, an *above benchmark surplus* (within the meaning of the *Code*) is to be calculated for each of the years 2012/13 to 2016/17 as follows:

$$ABS_{2012/13} = EIB_{2012/13} - A_{2012/13}$$

$$ABS_{2013/14} = (EIB_{2013/14} - A_{2013/14}) - (EIB_{2012/13} - A_{2012/13})$$

$$ABS_{2014/15} = (EIB_{2014/15} - A_{2014/15}) - (EIB_{2013/14} - A_{2013/14})$$

$$ABS_{2015/16} = (EIB_{2015/16} - A_{2015/16}) - (EIB_{2014/15} - A_{2014/15})$$

$$ABS_{2016/17} = (EIB_{2016/17} - A_{2016/17}) - (EIB_{2015/16} - A_{2015/16})$$

where:

ABS_t is the *above-benchmark surplus* in year t;

EIB_t is the *efficiency and innovation benchmark* for year t as set out in Table 29, adjusted for:

- a) any difference between the actual scale escalation factors and the forecast scale escalation factors used to establish the *non-capital costs* component of *approved total costs*. The scale escalation factors are a customer growth rate based on growth in customer numbers and a network growth rate based on increases in line length, increases in zone substation capacity and increases in the number of feeders; and
- b) the effects of inflation.

Table 29: Efficiency and innovation benchmarks (\$M real as at 30 June 2012)

Financial year ending:	30 June 2013	30 June 2014	30 June 2015	30 June 2016	30 June 2017
Efficiency and innovation benchmark - EIB_t	471.1	484.0	513.6	534.5	574.6

and

A_t is the sum of the actual *non-capital costs* incurred by Western Power for the *transmission system* and *distribution system* in year t , excluding any amount of *non-capital costs* incurred by Western Power:

- i. in accordance with the D-factor scheme in this *access arrangement* and providing that the expenditure has been approved by the *Authority*
- ii. in accordance with any adjustment made under section 7.1 of this *access arrangement*
- iii. in accordance with any adjustment made under section 7.2 of this *access arrangement*
- iv. in relation to superannuation for defined benefits schemes
- v. in relation to *non-revenue cap services*
- vi. in relation to licence fees
- vii. in relation to the energy safety levy

7.4.3 In any year in which an *above-benchmark surplus* is calculated to be a positive value the *above-benchmark surplus* does not exist to the extent that Western Power achieved efficiency gains or innovation in excess of the *efficiency and innovation benchmarks* during this *access arrangement period* by failing to provide *reference services* at a *service standard* at least equivalent to the *service standard benchmarks* for that year as set out in section 4 of this *access arrangement*.

7.4.4 Subject to section 7.4.5 of this *access arrangement*, the following amounts $GSMA_t$ will be added to *target revenue* for one or more *access arrangement periods* covering the years 2017/18 to 2021/22:

$$GSMA_{2017/18} = ABS_{2012/13} + ABS_{2013/14} + ABS_{2014/15} + ABS_{2015/16} + ABS_{2016/17}$$

$$GSMA_{2018/19} = ABS_{2013/14} + ABS_{2014/15} + ABS_{2015/16} + ABS_{2016/17}$$

$$GSMA_{2019/20} = ABS_{2014/15} + ABS_{2015/16} + ABS_{2016/17}$$

$$GSMA_{2020/21} = ABS_{2015/16} + ABS_{2016/17}$$

$$GSMA_{2021/22} = ABS_{2016/17}$$

where:

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

- 7.4.5 In any year where the amount of an adjustment to *target revenue* determined under section 7.4.4 of this *access arrangement* is a negative value, the amount of the adjustment to *target revenue* in that year is zero.
- 7.4.6 The *gain sharing mechanism* does not affect the ordinary operation of the transmission system and distribution system revenue caps (absent the *gain sharing mechanism*), which already provides for Western Power to retain 100% of any efficiency gains achieved during this *access arrangement period*. This characteristic is consistent with section 6.24 of the *Code* which ensures that Western Power can retain all of the *surplus* achieved in this *access arrangement period*.

7.5 Service standards adjustment mechanism

- 7.5.1 In accordance with section 6.30 of the *Code*, a *service standards adjustment mechanism* applies in relation to this *access arrangement*.
- 7.5.2 An amount will be added to, or deducted from, the *target revenue* for each of the *transmission system* and the *distribution system* for the next *access arrangement period* in accordance with the *service standards adjustment mechanism* set out below.
- 7.5.3 The *service standards adjustment mechanism* will apply to:
- a) the “**SSAM SSBs**” meaning the *service standard benchmarks* for SAIDI, SAIFI, call centre performance and circuit availability as defined in section 4 of this *access arrangement*; and
 - b) the “**transitional SSAM SSBs**” meaning the *service standard benchmarks* for:
 - i. SAIDI and SAIFI as defined in section 4 of this *access arrangement* with the additional exclusion of the interruptions shown to be caused by a fault or other event on the *transmission system*; and
 - ii. Circuit availability as defined in section 4 of this *access arrangement*.
- 7.5.4 In relation to actual service performance for each year of this *access arrangement period* for each *SSAM SSB* a reward (a positive amount) or penalty (a negative amount) will be calculated by applying the applicable incentive rate to the relevant Service Standard Difference (“**SSD**”). The *SSD* is calculated as follows:
- a) if $SSA_t < SSB$ for SAIDI and SAIFI; or
 $SSA_t > SSB$ for call centre performance and circuit availability then

$$SSD_t = (SST - SSA_t)$$
 - b) if $SSA_t \geq SSB$ for SAIDI and SAIFI; or

$SSA_t \leq SSB$ for call centre performance and circuit availability then

$$SSD_t = (SST - SSB)$$

where:

SSD_t is the service standard difference in year t;

SST is the SSAM target detailed in section 7.5.12 of this *access arrangement*;

SSB is the *service standard benchmark* for the SSAM SSBs as defined in section 7.5.3(a) of this *access arrangement*; and

SSA_t is the actual service performance in year t with respect to the SSAM SSBs.

7.5.5 In relation to actual service performance in the financial year ending 30 June 2012 a reward or penalty for each *transitional* SSAM SSB will be calculated by applying the applicable transitional incentive rate to the relevant Service Standard Adjustment Difference ("**SSAdj_{2012/13}**"). The *SSAdj_{2012/13}* is calculated as follows:

$$SSAdj_{2012/13} = SSA_{2011/12} - TSST$$

where:

SSAdj_{2012/13} is the service standard adjustment difference to transition the *service standards adjustment mechanism* from the previous *access arrangement period*

TSST is the transitional SSAM target detailed in section 7.5.13 of this *access arrangement*

SSA_{2011/12} is the actual service performance in the financial year ending 30 June 2012 for the *transitional* SSAM SSBs.

7.5.6 In relation to SAIDI and SAIFI, the rewards or penalties are calculated as the sum of the application of the formulae in sections 7.5.4 and 7.5.5 of this *access arrangement* to each component of SAIDI and SAIFI.

7.5.7 The rewards and penalties are applied to the performance year in this *access arrangement period* (the rewards or penalties for the *transitional* SSAM SSBs are applied to the financial year ending 30 June 2013) and:

- a) the reward or penalty for circuit availability will be allocated to the performance of the *transmission system*;
- b) the reward or penalty for SAIDI and SAIFI will be allocated between the performance of the *transmission system* and *distribution system* in a fair and reasonable manner except for the reward or penalty for *transitional* SSAM SSBs which will be allocated to the performance of the *distribution system*;
- c) the reward or penalty for call centre performance will be allocated to the performance of the *distribution system*.

7.5.8 The rewards and penalties applied to each year as allocated to each of the *transmission system* and *distribution system* are summed for each of the *transmission system* and *distribution system*.

- 7.5.9 Notwithstanding section 7.5.8 of this *access arrangement*, the sum of the rewards or penalties for the *transmission system* applied to each year is capped at 1% of TR_t for that year as defined in section 5.6.6.
- 7.5.10 Notwithstanding section 7.5.8 of this *access arrangement*, the sum of the rewards or penalties for the *distribution system* applied to each year is capped at 5% of DR_t for that year as defined in section 5.7.6.
- 7.5.11 The amount that will be added to, or deducted from, the *target revenue* for each of the *transmission system* and the *distribution system* is equal to the present value of the sum of the amounts for each of the *transmission system* and the *distribution system* calculated under section 7.5.8 of this *access arrangement* (as subject to sections 7.5.9 and 7.5.10 of this *access arrangement*).
- 7.5.12 The *SSAM targets* and incentive rates for the *SSAM SSBs* are as follows:

Table 30: SAIDI SSAM targets (for year ending 30 June) and incentive rates (\$ real as at 30 June 2012)

	SSAM target (SST_t)	Incentive rate (\$ per SAIDI minute)
SAIDI - CBD (minutes)	28	68,346
SAIDI - Urban (minutes)	163	488,756
SAIDI - Rural Short (minutes)	254	199,256
SAIDI - Rural Long (minutes)	616	62,535

Table 31: SAIFI SSAM targets (for year ending 30 June) and incentive rates (\$ real as at 30 June 2012)

	SSAM target (SST_t)	Incentive rate (\$ per event)
SAIFI - CBD (events)	0.22	7,691,084
SAIFI - Urban (events)	1.90	43,177,909
SAIFI - Rural Short (events)	2.91	18,879,174
SAIFI - Rural Long (events)	4.77	8,779,766

Table 32: Call centre performance SSAM target (for year ending 30 June) and incentive rate (\$ real as at 30 June 2012)

	SSAM target (SST_t)	Incentive rate (\$ per 0.1%)
Call centre performance (Percentage of calls responded to within 30 seconds)	88.0%	-60,190

Table 33: Circuit availability SSAM target (for year ending 30 June) and incentive rate (\$ real as at 30 June 2012)

	SSAM target (SST_t)	Incentive rate (\$ per 0.1%)
Circuit availability (Percentage of total possible hours available)	97.7%	-712,798

7.5.13 The *transitional SSAM targets* and transitional incentive rates for the *transitional SSAM SSBs* are as follows:

Table 34: SAIDI transitional SSAM targets (for year ending 30 June) and transitional incentive rates (\$ real as at 30 June 2012)

	Transitional SSAM target (TSST)	Transitional incentive rate (\$ per SAIDI minute)
SAIDI - CBD (minutes)	26	240,758
SAIDI - Urban (minutes)	152	240,758
SAIDI - Rural Short (minutes)	243	8,974
SAIDI - Rural Long (minutes)	597	8,974

Table 35: SAIFI transitional SSAM targets (for year ending 30 June) and transitional incentive rates (\$ real as at 30 June 2012)

	Transitional SSAM target (TSST)	Transitional incentive rate (\$ per event)
SAIFI - CBD (events)	0.15	11,271,870
SAIFI - Urban (events)	1.72	11,271,870
SAIFI - Rural Short (events)	2.76	492,460
SAIFI - Rural Long (events)	4.34	492,460

Table 36: Circuit availability transitional SSAM target (for year ending 30 June) and transitional incentive rate (\$ real as at 30 June 2012)

	Transitional SSAM target (TSST)	Transitional incentive rate (\$ per 0.1%)
Circuit availability (Percentage of total possible hours available)	97.7%	-410,384

7.6 D factor

7.6.1 This D factor scheme applies separately to each of:

- a) *new facilities investment* and *non-capital costs* for the *transmission system*; and
- b) *new facilities investment* and *non-capital costs* for the *distribution system*.

7.6.2 In the next *access arrangement period*, the *Authority* will add to Western Power's *target revenue* an amount so that Western Power is financially neutral as a result of:

- a) any additional *non-capital costs* incurred by Western Power as a result of deferring a *new facilities investment* project during this *access arrangement period*; and

- b) any additional *non-capital costs* or *new facilities investment* incurred by Western Power in relation to demand management initiatives.

7.6.3 In relation to 7.6.2a), the *new facilities investment* project that has been deferred must have been included in the D-factor Project List (provided to the *Authority as confidential material*) and Transmission Network Development Plan.

7.6.4 In relation to 7.6.2a), and 7.6.2b), an amount will only be added to *target revenue* for the next *access arrangement period* 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:

- a) the proposed *non-capital costs* satisfy the requirements of sections 6.40 and 6.41 of the *Code*, as relevant; and
- b) the proposed *new facilities investment* satisfies the requirements of section 6.51A of the *Code*.

7.6.5 In relation to 7.6.2a), and 7.6.2b) the adjustment to the *target revenue* for the next *access arrangement period* must leave Western Power economically neutral by taking account of:

- a) the effects of inflation; and
- b) the time value of money as reflected by Western Power's *weighted average cost of capital* for the *Western Power Network*.

8 Trigger events

- 8.1.1 Pursuant to section 4.37 of the *Code* a *trigger event* is any significant unforeseen event which has a materially adverse financial impact on Western Power and which is:
- a) outside the control of Western Power; and
 - b) not something that Western Power, acting in accordance with *good electricity industry practice*, should have been able to prevent or overcome; and
 - c) so substantial that the advantages of making a variation to this *access arrangement* before the end of this *access arrangement period* outweigh the disadvantages, having regard to the impact of the variation on regulatory certainty.
- 8.1.2 A *trigger event* may include without limitation the introduction of any scheme or mechanism with respect, directly or indirectly, to emissions of greenhouse gases and with respect to any activity including pricing, reduction, cessation, offset and sequestration (including the Carbon Pricing Mechanism announced by the Commonwealth in February 2011), full retail contestability, and the mandated roll-out of Advanced Interval Meters to the extent that such costs were not included in the calculation of *target revenue* for this *access arrangement period* or otherwise addressed through the unforeseen event provisions in sections 7.1.1 to 7.1.4 of this *access arrangement*.
- 8.1.3 The *designated date* by which Western Power must submit *proposed revisions* to the *Authority* is 90 *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 Supplementary matters

9.1 Balancing

- 9.1.1 Balancing requirements under the *access arrangement* shall be in accordance with the Wholesale Electricity Market Rules.

9.2 Line losses

- 9.2.1 Requirements for the treatment of line losses under the *access arrangement* shall be in accordance with the Wholesale Electricity Market Rules.

9.3 Metering

- 9.3.1 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.

9.4 Ancillary services

- 9.4.1 Requirements for the treatment of ancillary services under the *access arrangement* shall be in accordance with the Wholesale Electricity Market Rules.

9.5 Stand-by

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

9.6 Trading

- 9.6.1 Trading requirements under the *access arrangement* shall be in accordance with the Wholesale Electricity Market Rules.

9.7 Settlement

- 9.7.1 Settlement requirements under the *access arrangement* shall be in accordance with the Wholesale Electricity Market Rules.

APPENDICES

Appendix A – Electricity Transfer Access Contract

September 2011



Electricity Transfer Access Contract

BETWEEN:



Electricity Networks Corporation

ABN 18 540 492 861

~ and ~

[Name of User]

[ABN/ACN/ARBN]

~ and ~

[Name of Indemnifier]¹

[ABN/ACN/ARBN]

**General Counsel & Company Secretary
Legal & Governance**

363 Wellington Street
PERTH WA 6000

T: (08) 9326 4651 | F: (08) 9325 5620

¹ Delete if no Indemnifier

{Note: This contract has been prepared in accordance with the requirements of the Electricity Networks Access Code 2004}

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PARTIES

ELECTRICITY NETWORKS CORPORATION ABN 18 540 492 861, a statutory body corporate established under section 4(1)(b) of the *Electricity Corporations Act 2005 (WA)*, of 363 Wellington Street, Perth, Western Australia (Western Power*)

– and –

[] of [] (User*)

– and –

[] of [] (Indemnifier*)

INTRODUCTION

1. Background

- (a) The User* has made an Application* requesting Covered Services* at one or more Connection Points*.
- (b) Western Power* has made an Access Offer* in accordance with the Applications and Queuing Policy* to provide the Covered Services* to the User*.
- (c) The User* has signed the Access Offer*, which has become this Access Contract*.
- (d) The Indemnifier* has agreed to indemnify Western Power* in respect of the User's* liabilities under this Access Contract*. ¹

2. Defined terms

Words appearing with an asterisk (*) in this Contract* are defined terms and have the respective meanings detailed in the dictionary in Schedule 1.

OPERATIVE PROVISIONS

1. Interpretation

1.1 Interpretation

In this Contract*:

- (a) a reference to:
 - (i) the singular includes the plural and the plural includes the singular; and
 - (ii) an officer or body of persons includes any other officer or body for the time being exercising the powers or performing the functions of that officer or body; and
 - (iii) this Contract* or any other instrument includes any variation or replacement of it; and
 - (iv) “**under**” includes “**by**”, “**by virtue of**”, “**pursuant to**” and “**in accordance with**”; and
 - (v) “**day**” means a calendar day; and
 - (vi) “**person**” includes a public body, company, or association or body of persons, corporate or unincorporated; and
-

¹ Delete this paragraph if there is no Indemnifier*.

- (vii) a person includes a reference to the person's personal representatives, executors, administrators, successors and permitted assigns; and
- (viii) any monetary amount means that amount in Australian dollars, and
- (b) a word of any gender includes the corresponding words of each other gender; and
- (c) if a period of time is specified and dates from a given day or the day of an act or event, it is to be calculated exclusive of that day; and
- (d) “**copy**” includes a facsimile copy, photocopy or (subject to the Electronic Communication Protocol in Schedule 7) electronic copy; and
- (e) “**including**” and similar expressions are not words of limitation; and
- (f) where a word or expression is given a particular meaning, other parts of speech and grammatical forms of that word or expression have a corresponding meaning; and
- (g) where information is set out in braces (namely “{“ and ”}”), whether or not preceded by the expression “Note“, “Outline“ or “Example“, the information:
 - (i) is provided for information only and does not form part of this Contract*; and
 - (ii) is to be disregarded in interpreting this Contract*; and
 - (iii) might not reflect amendments to this Contract* or other documents or Laws*, and
- (h) a reference to:
 - (i) this Contract* includes any Schedule to this Contract*; and
 - (ii) a clause is a reference to a clause of this Contract*; and
 - (iii) a series of consecutive clauses or Schedules is to be read as inclusive of the first and last in the series; and
 - (iv) “**other party**”, in relation to Indemnifier*, means Western Power*.

1.2 Interpretation Act applies

Unless the contrary intention is apparent, the rules of interpretation in the *Interpretation Act 1984 (WA)* apply to the interpretation of this Contract*.

1.3 CPI* adjustment

In this Contract*, “**CPI-Adjusted**” in reference to an amount means that amount is adjusted under the following formula:

$$N = C \times \left(1 + \frac{CPI_n - CPI_c}{CPI_c}\right)$$

where:

“**N**” is the new amount being calculated; and

“**C**” is the current amount being adjusted; and

“**CPI_n**” is the CPI* applicable at the end of the calendar quarter (quarter _n) most recently ended prior to the current adjustment date; and

“**CPI_c**” is the value of CPI* applicable at the previous adjustment date.

2. Duration

2.1 Commencement and Term*

- (a) This Contract* commences on the Commencement Date*.
- (b) This Contract* ends on the Termination Date* (unless terminated earlier under this Contract*).

2.2 Option to extend Term*

- (a) Subject to clause 2.2(b), the User* may, by notice to Western Power* given no later than 6 months prior to the expiration of the Term* as at the time the notice is given, elect to extend the Term* by such period as is specified in Part 2 of Schedule 2 as the "Extension Period*", in which event the Termination Date* shall be the last day of the Extension Period*.
- (b) The Term* shall not in any event be extended such that the Termination Date* is later than the date specified in Part 2 of Schedule 2 as the "**Latest Termination Date***", except by mutual agreement between the Parties*.

2.3 Conditions Precedent*

- (a) The formation of this Contract*, other than this clause 2.3 and clauses 29.1 to 29.5 {disputes}, 31.1 to 31.3 {assignment}, 33.1 to 33.10 {confidentiality}, 35 {notices} and 37.14 {governing law} is subject to and conditional upon each of the Conditions Precedent* being satisfied on or before the date specified in Part 3 of Schedule 2 or:
 - (i) where a Condition Precedent* is not specified to be for the benefit of a particular Party*, that Condition Precedent* being waived by agreement between all Parties*; and
 - (ii) where a Condition Precedent* is specified to be for the benefit of a particular Party*, that Condition Precedent* being waived by that Party*,
 on or before the respective date specified in Part 3 of Schedule 2.
- (b) Where a Condition Precedent* is not specified to be for the benefit of a particular Party*, each of the Parties* must use all reasonable endeavours to obtain the fulfilment of the Condition Precedent*.
- (c) Where a Condition Precedent* is specified to be for the benefit of a particular Party*, that Party* must use all reasonable endeavours to obtain the fulfilment of the Condition Precedent* and the other Party* shall not, by wilful act or omission, prevent its fulfilment.
- (d) A Party* must promptly notify the other Parties* if it:
 - (i) discovers that any of the Conditions Precedent* are not satisfied by the date specified in Part 3 of Schedule 2; or
 - (ii) discovers that any of the Conditions Precedent* have become incapable of being satisfied by the date specified in Part 3 of Schedule 2; or
 - (iii) waives any right to continue to treat any of the Conditions Precedent* as conditions precedent to the formation of this Contract*.
- (e) If a Condition Precedent* is not satisfied or waived by the date specified in Part 3 of Schedule 2 (or such longer period as the Parties* may in writing agree) then, if the Party* who seeks to terminate this Contract* has complied with clause 2.3(b) or 2.3(c), as the case requires, that Party* may, without prejudice to any other right or remedy it may have, terminate this Contract* by giving written notice to the other Party*.

Electricity Transfer Provisions

3. Services

3.1 Provision and use of Services*

- (a) For each Connection Point*, on and from the Start Date* and up to and including the End Date*, subject to and under this Contract*:
 - (i) Western Power* must provide the Services*, up to the Contracted Capacity*; and
 - (ii) the User* must pay the Charges* for, and may use, the Services*.
- (b) The User* must not:
 - (i) transfer electricity out of the Network* at a Connection Point* unless it has an Exit Service* or Bidirectional Service* for that Connection Point*; and
 - (ii) transfer electricity into the Network* at a Connection Point* unless it has an Entry Service* or Bidirectional Service* for that Connection Point*.
- (c) For each Service* at each Connection Point*, the User* must endeavour, as a Reasonable and Prudent Person*, to ensure that the rate at which electricity is transferred into or out of the Network* by or on behalf of the User* does not exceed the Contracted Capacity* for that Service*.

3.2 User* may select Services*

- (a) The User* may from time to time give notice to Western Power* seeking to change the Service* in respect of a Connection Point* in accordance with the Applications and Queuing Policy*.
- (b) If Western Power* receives a notice from the User* under clause 3.2(a), then Western Power* must process that request in accordance with the Applications and Queuing Policy*.

3.3 Eligibility Criteria*

- (a) The User* must in relation to each Reference Service Point*, comply with the Eligibility Criteria* applicable to the Reference Service* provided, or to be provided, at the Reference Service Point*.
- (b) Where the User* has sought to change the Reference Service* in respect of a Connection Point* under clause 3.2(a), its obligation under clause 3.3(a) in relation to that Connection Point* is subject to compliance by Western Power* with clause 3.2(b).

3.4 Increase or decrease of Contracted Capacity*

- (a) The User* may not increase or decrease the Contracted Capacity* at an existing Connection Point* to this Contract* unless the User* makes an application to Western Power* and Western Power* approves that application under the Applications and Queuing Policy*.
- (b) If the User* makes an application to Western Power* under clause 3.4, then Western Power* must process the application under the Applications and Queuing Policy*.

3.5 Addition of a Connection Point*

- (a) The User* may not add an additional Connection Point* to this Contract* unless the User* makes an application to Western Power*, and Western Power* approves that application, under:
 - (i) the Applications and Queuing Policy*; or

- (ii) the Customer Transfer Code*,
as applicable.
- (b) If the User* makes an application to Western Power* under clause 3.5, then Western Power* must process the application under:
 - (i) the Applications and Queuing Policy*; or
 - (ii) the Customer Transfer Code*,
as applicable.

3.6 Deletion of a Connection Point*

- (a) The User* may give notice to Western Power* seeking to delete a Connection Point* from this Contract* where:
 - (i) the Customer* in relation to the Connection Point* has made a transfer request under the Customer Transfer Code*; or
 - (ii) the Connection Point* will be added to another Access Contract* by some other means to that stipulated in clause 3.6(a)(i); or
 - (iii) the Facilities and Equipment* in respect of the Connection Point* will be permanently Disconnected* from the Connection Point*.
- (b) If the User* seeks to permanently Disconnect* any Facilities and Equipment* at a Connection Point*, then the notice under clause 3.6(a) must be given to Western Power*:
 - (i) for Generating Plant* at a Connection Point*, at least 6 months before the planned Disconnection*; and
 - (ii) for Consuming* plant at a Connection Point*, at least one month before the planned Disconnection*.
- (c) If Western Power* receives a notice from the User* under clause 3.6(a), then it must notify the User* that it accepts the deletion, and the date that the deletion takes effect, if:
 - (i) Western Power* has successfully processed a Customer* transfer request in relation to the Connection Point* under the Customer Transfer Code*; or
 - (ii) the Connection Point* has been added to another Access Contract* by some other means; or
 - (iii) the Facilities and Equipment* in respect of the Connection Point* have been permanently Disconnected* from the Connection Point*,
otherwise Western Power* may notify the User* that it rejects the deletion.
- (d) Subject to the Customer Transfer Code*, Western Power* must not delete a Connection Point* other than in accordance with a notice given by a User* under clause 3.6.
- (e) If Western Power* commits a breach of clause 3.6(d) in circumstances that constitute Wilful Default* it is liable to the User* for any damage caused by, consequent upon or arising out of the Wilful Default*. In this case, the exclusion of Indirect Damage* in clause 19.3 does not apply.

3.7 Amendment to Connection Point* data

- (b) Unless the Parties* otherwise agree, Western Power must record the information referred to in Part 1 of Schedule 3, with respect to each Connection Point*, in the Connection Point Database*.
- (a) Subject to clauses 3.7(g) and 3.7(h), Western Power* must update the information contained in a Connection Point Database* following any variation made under this clause 3.
- (b) Upon request by the User* for information referred to in the Connection Point Database*, Western Power* will provide to the User* the most up-to-date version of that information.

- (c) The Parties* acknowledge that if the User* is a Metering Code Participant*, for each Connection Point* Western Power* must also record and update the relevant information required under Part 1 of Schedule 3 in the Metering Database* in accordance with the provisions of the Metering Code*.
- (c) Nothing in this Contract* restricts or prohibits Western Power* from maintaining and updating the Metering Database* in accordance with the Metering Code*.
- (d) Western Power* will provide the User* with access to the information in the Metering Database* in accordance with the Build Pack*.
- (e) Subject to clause 3.7 (h), where Western Power causes a Permanent Reconfiguration* of the Network* which results in the information contained in the Contract Database* having to be updated:
 - (i) Western Power* is not required to update the information contained in the Connection Point Database* before the next 1 July following the Permanent Reconfiguration* of the Network*; and
 - (ii) Western Power* must update the information contained in the Connection Point Database* before the next 21 July following the Permanent Reconfiguration* of the Network*.
- (f) Where a Permanent Reconfiguration* of the Network* occurs as a result of, or arising from, a notice or application by the User* under clauses 3.4, 3.5 or 3.6 which results in the information contained in the Contract Database* having to be updated:
 - (i) clause 3.7(g) does not apply;
 - (ii) Western Power* must update the information contained in the Connection Point Database* as soon as reasonably practicable after the Permanent Reconfiguration* of the Network*; and
 - (iii) where the information to be updated is contained in Part 1 of Schedule 3, then the information must be updated in accordance with clause 37.2.
- (g) The Parties* must notify each other of any errors discovered in the Connection Point Database* as soon as reasonably practicable after becoming aware of the error
- (h) Western Power* must amend any error in the Connection Point Database* as soon as reasonably practicable after becoming aware of the error, provided that if Western Power* becomes aware of an error otherwise than by notice from the User* under clause 3.7(i), no amendment shall be made until Western Power* has given notice to the User* of the error.
- (d) Where under this Contract* Western Power* has recorded information in more than one of Part 1 of Schedule 3, the Metering Database* and any other database maintained by Western Power for the purposes of this Contract* and there is an inconsistency or conflict between the information in the databases in which the information is recorded, then the following order of precedence applies, from highest to lowest:
 - (i) where the circumstances in clauses 3.7(g) or 3.7(h) apply:
 - (A) Part 1 of Schedule 3;
 - (B) any other database;
 - (C) the Metering Database*; and
 - (ii) in all other circumstances:
 - (A) the Metering Database*;
 - (B) Part 1 of Schedule 3;
 - (C) any other database.

4. The User* must provide forecast information

4.1 Western Power* may request information

Western Power* may as a Reasonable and Prudent Person*, in respect of a Connection Point*, request power and energy forecast information from the User*.

4.2 When Western Power* may request information

A request under clause 4.1 must not be made more than once in any 12 month period, except in an Emergency* or where any forecasts provided by the User* materially differ from the User*'s actual performance and, in the opinion of Western Power* (as a Reasonable and Prudent Person*), require revision in order to facilitate the operation of the Network* in accordance with Good Electricity Industry Practice*.

4.3 User* must comply with request

The User* must comply with Western Power*'s reasonable request under clause 4.1.

5. Title to electricity

5.1 Transfer into the Network*

Title to electricity that is transferred into the Network* at a Connection Point* passes from the User* to Western Power* at the time it passes through the Connection Point*.

5.2 Transfer out of the Network*

Title to electricity that is transferred out of the Network* at a Connection Point* passes from Western Power* to the User* at the time it passes through the Connection Point*.

6. Controllers

6.1 User* must nominate Controller* where Connection Point* exceeds threshold

- (a) If the User* is not the Controller* of a Connection Point* then the User* must, by notice to Western Power* before the Start Date* of the relevant Services*, or as soon as reasonably practicable thereafter (but in all cases no later than 30 Business Days* after the Start Date* of the relevant Services*), nominate a person as the Controller* for a Connection Point* where:
 - (i) the Generating Plant* with installed capacity exceeding 30 kVA is connected at the Connection Point*; or
 - (ii) the Connection Assets* for the Connection Point* are operated at 66 kV or greater; or
 - (iii) the rating of the largest motor connected at the Connection Point* is greater than 0.4% of the three phase short circuit fault level at the Attachment Point*.
- (b) The User* may, from time to time, by notice to Western Power*, change the person the User* nominates as the Controller* of a Connection Point*.
- (c) The Parties* must amend the Connection Point Database* following any variation made under this clause 6.1.
- (d) Western Power*, acting as a Reasonable and Prudent Person*, may at any time on reasonable technical or commercial grounds object to a person nominated by the User* as a Controller* under clause 6.1, in which case the User* must either:
 - (i) Dispute* Western Power*'s objection; or

- (ii) nominate a different person as a Controller*.
- (e) If Western Power* requires, the User* must use reasonable endeavours to procure that the person nominated by the User* as a Controller* enters into a Connection Contract* with Western Power* in respect of the Connection Point*.

6.2 Where the User* is not the Controller*

- (a) Subject to clause 6.2(f), if the User* is not the Controller* of a Connection Point*, and the Controller* of that Connection Point* has not entered into a Connection Contract* with Western Power* in respect of the Connection Point*, then the User* must ensure that the Controller* of that Connection Point* complies, and will continue to comply, with the obligations set out in this Contract*, to the extent that such compliance is reasonably necessary for the Parties* to satisfy their obligations under this Contract*, including, but not limited to:
 - (i) clause 11 (Good Electricity Industry Practice*); and
 - (ii) clause 12 (Technical Rules*); and
 - (iii) clause 13 (Technical characteristics of Facilities and Equipment*); and
 - (iv) clause 14 (Cooperation); and
 - (v) clause 15 (Access to premises); and
 - (vi) clause 16 (Directions from System Operator*); and
 - (vii) clause 17 (Removal of equipment);
 - (viii) clause 25 (Curtailed*); and
 - (ix) clause 35 (Notices).
- (b) If the User* is not the Controller* of a Connection Point*, and the Controller* of that Connection Point* has not entered into a Connection Contract* with Western Power* in respect of the Connection Point*, then the User* must ensure that any Contract* entered into between the User* and a Controller* relating to Services* under this Contract* contains a provision that neither the User* nor Western Power* is in any circumstances liable for Indirect Damage* suffered by the Controller*, however arising, excluding any damage caused by, consequent upon or arising out of fraud.
- (c) On reasonable request from Western Power*, the User* must (unless the Controller* has already entered into a Connection Contract* with Western Power*) provide evidence to Western Power*'s satisfaction as a Reasonable and Prudent Person* that the User* is complying, and will continue to comply, with clause 6.2(a).
- (d) If the User* does not satisfy Western Power* under clause 6.2(c), Western Power* may refuse to commence the Services* or may Curtail* the provision of Services* in respect of the relevant Connection Point* unless and until:
 - (i) the Controller* has entered into a Connection Contract* with Western Power* in respect of the Connection Point*; or
 - (ii) the User* satisfies Western Power* under clause 6.2(c).
- (e) For the avoidance of doubt, if the User* is in breach of clause 6.2(a), then the User* is liable for, and must indemnify Western Power* pursuant to clause 19.2 against any Direct Damage* caused by, consequent upon or arising out of the acts and omissions, negligent or otherwise, of the Controller* to the extent that the acts or omissions, negligent or otherwise, of the Controller* are attributable to that breach, unless the Controller* has entered into a Connection Contract* with Western Power*.
- (f) Subject to clause 6.2(g), the User* is required to commence, maintain or continue legal proceedings to procure compliance of the Controller* with the obligations set out in this Contract*, to the extent that such compliance is reasonably necessary for the Parties* to satisfy their obligations under this Contract*.
- (g) For a Connection Point* other than as referred to in clause 6.1, the User* is not required to comply with clause 6.2(f) unless Western Power* provides an indemnity to the User* for all of the User*'s costs of and incidental to the proceedings.

- (h) Nothing in clause 6.2(f) or clause 6.2(g):
 - (i) limits the User*'s obligations under the remainder of this clause 6.2; or
 - (ii) derogates from Western Power*'s other rights under this Contract* including its rights under clause 6.2(d), or requires Western Power* to pay any compensation to the User* for exercising any of those rights.

6.3 Western Power* may enter into Access Contracts*

Nothing in clause 6.2 is to be taken to prevent Western Power* from entering into an Access Contract* with any person, including a person who is a Controller*.

6.4 Liability and Force Majeure* not limited

Nothing in clause 6.2 limits the operation of clauses 19.2 or 22.1 in respect of either the User* or Western Power*.

7. Tariff* and Charges*

7.1 Tariff*

- (a) The tariff payable under this Contract* for a Service* is the tariff, or tariffs, as applicable, specified in the Price List* from time to time for the Service*. For the avoidance of doubt, the tariffs specified in the Price List* apply to all consumption during the Pricing Year* applicable to the Price List*. Where consumption is metered with an accumulation meter and the meter reading interval causes some of the metered consumption to lie within the Pricing Year* applicable to the Price List* and the remainder within a Pricing Year* applicable to another Price List*, the consumption covered by the Price List* will be determined by prorating the metered consumption uniformly on a daily basis.
- (b) If:
 - (i) no Price List* is published by the Authority* on the date required under the Code*; or
 - (ii) a purported Price List* which does not comply with the Access Arrangement* is published,
 then to the extent that the effect of a Price List* (if it had been published on the date required under the Code* and had been compliant with the Access Arrangement*) would have been to reduce the Tariff* payable by the User*, then the User* may recover the Tariff* reduction as an overpayment under clause 8.6.
- (c) If applicable, the Tariff* payable under clause 7.1(a) for a Service* after the end of the current Access Arrangement* period is to be determined as follows:
 - (i) if the new Access Arrangement* contains a Reference Service* ("**Equivalent Reference Service***") which is materially the same as the Service* then the tariff for the Service* is to be the tariff for the Equivalent Reference Service*; and
 - (ii) if the new Access Arrangement* does not contain an Equivalent Reference Service*, or if for any reason there is no new Access Arrangement* or new Price List* under the new Access Arrangement*, then the tariff for each quarter will be the Tariff* in the final Price List* which Western Power* was required to publish under the previous Access Arrangement*, CPI-Adjusted* annually each 1 July.
- (d) Clause 7.1(c) applies, with appropriate modifications, in respect of the end of each successive Access Arrangement* period.
- (e) Western Power* must notify the User* of the Tariffs* calculated from time to time under clause 7.1(c).
- (f) For the purposes of calculating Tariffs* and Charges* for a Service*:

- (i) Western Power* is entitled to rely on the information contained in the Contract Database* (as updated from time to time in accordance with this Contract*); and
- (ii) where information contained in the Contract Database* is updated, or to be updated, in accordance with this Contract*, the updated information:
 - (A) will not apply to any period before; and
 - (B) must not be used to calculate a Tariff* or Charge* until,

the date that the information is actually updated in accordance with this Contract*.

7.2 Charges*

The User* must pay to Western Power*:

- (a) the Charge* for each Service* calculated at the Tariff* determined under clause 7.1; and
- (b) nothing in this clause 7.2 prevents Western Power* from recovering any other monies otherwise payable by the User* to Western Power* under this Contract* or at Law*.

7.3 Charges* during Western Power*'s Force Majeure Event*

- (a) If a Service* ("**Affected Service***") is unavailable for any consecutive period of two days or longer ("**Affected Service Period***") due to a Force Majeure Event* where:
 - (i) Western Power* is the Affected Person*;
 - (ii) the User* is unable to use the Affected Service* because of the Force Majeure Event*; and
 - (iii) Western Power*'s inability to provide the Affected Service* has not been caused by the User*'s default or negligence,

then, for that part of the Affected Service Period* in which the User*'s Facilities and Equipment* in respect of the Affected Service* were not or would not have been subject to a scheduled or unscheduled outage by which the User*'s Facilities and Equipment* were De-energised*, the User* is relieved of its obligation under clause 7.2 and instead must pay 10% of the "**Standing Charges***" (as defined in clause 7.3(b)) for the Affected Service* during that part of the Affected Service Period*.

- (b) Under this clause 7.3, Standing Charges* means:
 - (i) those Charges* or components of a Charge* which apply to a Service* regardless of the actual Generation* or Consumption* by the User* in respect of that Service*, as recorded by the Metering Equipment*; and
 - (ii) is not those components of a Charge* which are determined by reference to the actual Generation* or Consumption* by the User* in the respect of that Service*, as recorded by the Metering Equipment*.

8. Invoicing and payment

8.1 Western Power* invoices

- (a) Subject to clause 8.1(d), Western Power* must, within 14 Business Days* after the end of an Accounting Period*, issue to the User* a Tax Invoice* for the Accounting Period* showing:
 - (i) all amounts payable by the User* to Western Power* under this Contract* for the Accounting Period*; and
 - (ii) all outstanding amounts as at the end of the Accounting Period* and interest payable on those amounts; and
 - (iii) GST* payable on those amounts under clause 8.8.

- (b) A Tax Invoice* issued by Western Power* under clause 8.1(a) or 8.1(d) may include other amounts payable by the User* to Western Power* with regards to the Service* under this Contract* or at Law*.
- (c) At the same time as issuing a Tax Invoice* under this clause 8.1, Western Power* must provide to the User*, in electronic form, the metering information used to calculate the Charges* shown on the Tax Invoice* in sufficient detail to enable the User* to understand how Western Power* calculated the Charges*.
- (d) Notwithstanding clause 8.1(a), the Parties* may, by mutual agreement, implement a different system of invoicing to that stipulated in clause 8.1(a) including, for example, issuing two or more Tax Invoices* per Accounting Period*, and separate invoicing for different classes or groups of consumers, Connection Points* or Services*.

8.2 User* invoices

- (a) At the same time as Western Power* issues to the User* a Tax Invoice* for an Accounting Period* under clause 8.1, Western Power* must provide the User* with all information necessary for the User* to determine any amounts payable by Western Power* to the User* for the Accounting Period*.
- (b) The User* must, within 5 Business Days* after receiving the information under clause 8.2(a), issue to Western Power* a Tax Invoice* for the Accounting Period* showing:
 - (i) all amounts payable by Western Power* to the User* under this Contract*, which amounts may be calculated using the information provided to the User* by Western Power* under clause 8.2(a); and
 - (ii) all outstanding amounts as at the end of the Accounting Period* and interest payable on those amounts; and
 - (iii) GST* payable on those amounts payable under clause 8.8.
- (c) If the User* Disputes* the information provided by Western Power* under clause 8.2(a), then:
 - (i) the User* may issue a Tax Invoice* under clause 8.2(b) for an amount the User* (acting as a Reasonable and Prudent Person*) estimates to be the correct amount payable; and
 - (ii) the User* must, before the Due Date* of the Tax Invoice* under clause 8.2(b), give notice to Western Power* that it Disputes* the information provided under clause 8.2(a) and provide in that notice full details of the Dispute*, including the difference between the amount for which the Tax Invoice* has been issued by the User* and the amount for which that Tax Invoice* would have been issued had the information provided by Western Power* under clause 8.2(a) been accepted by the User* as correct.
- (d) Clause 8.4 applies in respect of a Tax Invoice* issued under clause 8.2(b), for the purposes of which the **“Undisputed Portion”** is taken to be an amount calculated in accordance with the information provided by Western Power* under clause 8.2(a).

8.3 Payment of invoices

- (a) Each Party* which receives a Tax Invoice* under clause 8.1 or 8.2, must on or before the Due Date* of the Tax Invoice* pay to the Party* issuing the Tax Invoice* all amounts shown on the Tax Invoice* which are payable under this Contract*.
- (b) If a Party* fails to comply with clause 8.3(a) then, without prejudice to the other Party*'s other rights, the Party* must pay interest on any unpaid amount, calculated daily at the Prescribed Rate* from the Due Date* of the Tax Invoice* until payment.

8.4 Disputed* invoices

- (a) If a Party* Disputes* any amount set out in a Tax Invoice* issued under clause 8.1 or 8.2 then that Party* must pay the Undisputed Portion* (if any) and must, prior to the Due Date* of the Tax Invoice*, give notice to the other Party* that it Disputes* the amount and provide in that notice full details of the Dispute*.
- (b) Without prejudice to the other Party*'s other rights, any amount withheld by a Party* under clause 8.4(a) but subsequently found to have been payable attracts interest calculated daily at the Prescribed Rate* from the Due Date* of the Tax Invoice* until payment.
- (c) Without prejudice to the other Party*'s other rights, any amount paid by a Party* under clause 8.4(a) but subsequently found not to have been payable attracts interest calculated daily at the Prescribed Rate* from the date the Party* paid the amount to the date the other Party* repays the amount.

8.5 Charge* errors

Nothing in this clause or elsewhere in this Contract* affects or limits the operation of sections 65 and 66 of the Energy Operators (Powers) Act 1979 (WA) in relation to Charges* paid or payable by the User* under this Contract*.

8.6 Under and over payments

- (a) Subject to clause 8.6(e), if a Party* detects a Payment Error* by a Party* of any amount within 18 calendar months after the Payment Error*:
 - (i) the Party* must as soon as reasonably practicable give notice to the other Parties* of the Payment Error*; and
 - (ii) an adjusting payment must be made by the appropriate Party* within 10 Business Days* of the notice.
- (b) Except where clause 8.6(c) applies, the adjusting payment must, without prejudice to the Party*'s other rights, include interest calculated daily at the Prescribed Rate* from the date of the Payment Error* until the date of the adjusting payment.
- (c) An adjusting payment by a Party* will not attract interest under clause 8.6(b) if it is made in relation to an underpayment and the underpayment was the result of an error by the other Party*.
- (d) Subject to clause 8.6(e), a Party* is not entitled to an adjusting payment for a Payment Error* notified to the other Parties* after the expiry of 18 calendar months after the Payment Error*.
- (e) Notwithstanding clauses 8.6 (a) and 8.6 (d), where:
 - (i) Payment Errors* have occurred as a result of an error in the data used to calculate the Charges*; and
 - (ii) the Payment Errors* occurred in one or more Accounting Periods*,
 - (iii) the Party* who was underpaid or who made an overpayment (as applicable) is entitled to an adjusting payment only for the Payment Errors* that occurred in the Accounting Periods* that were within the 12 month period preceding the date that the Payment Errors* were notified by one Party* to the other.
- (f) Where a Payment Error* is an error as a result of which the amount set out in a Tax Invoice* is less than what it would have been had the error not been made, the Payment Error* will be taken to have occurred on the Due Date* of the Tax Invoice*.
- (g) Where a Payment Error* is an error as a result of which the amount set out in a Tax Invoice* is more than what it would have been had the error not been made, the Payment Error* will be taken to have occurred on the date the User* has paid the total amount of the Tax Invoice* in full.

8.7 Interest on overdue payment

If a Party* Defaults* in due and punctual payment of a Tax Invoice*:

- (a) clauses 27.1 to 28.1(d)(i) apply; and
- (b) the overdue payments attract interest payable at the Prescribed Rate* from the Due Date* of the Tax Invoice* until the Default* is remedied.

8.8 GST*

- (a) Unless expressly included, the consideration for any supply under or in connection with this Contract* (including any Charge* or Tariff* derived from a Price List* and any Contribution*) is GST* exclusive.
- (b) To the extent that any supply made under or in connection with this Contract* is a taxable supply and the price for it (including any Charge* or Tariff* derived from a Price List* and any Contribution*) is stated to be GST* exclusive, the consideration for that supply is increased by an amount determined by the supplier, not exceeding the amount of the consideration (or its market value) multiplied by the rate at which GST* is imposed in respect of the supply.
- (c) Without limiting the obligation to provide a Tax Invoice* under clauses 8.1 and 8.2, the supplier must issue a Tax Invoice* to the recipient of a supply to which clause 8.8(b) applies before the payment of the GST* inclusive consideration determined under that clause.
- (d) If a Party* is entitled under this Contract* to be reimbursed or indemnified by another Party* for a cost or expense incurred in connection with this Contract*, the reimbursement or indemnity payment must not include any GST* component of the cost or expense for which an input tax credit may be claimed by the Party* entitled to be reimbursed or indemnified, or by its representative member.
- (e) If a Party* becomes aware of an adjustment event, that Party* agrees to notify the other Party* as soon as practicable after becoming so aware, and the Parties* agree to take whatever steps are necessary, including the issue of an adjustment note, and to make whatever adjustments are required, to ensure that any GST* or additional GST* on that supply or any refund of any GST* (or part of GST*) is paid as soon as is practicable but no later than 10 Business Days* after the Party* has satisfied itself that the adjustment event has occurred.
- (f) Definitions in the GST Act* apply also in this clause 8.8 unless the context indicates otherwise.

9. Security for Charges*

- (a) Subject to clause 9(b), if Western Power* determines at any time during the Term* that either or both of the User*'s or the Indemnifier*'s technical or financial resources are such that a Reasonable and Prudent Person* would consider there to be a material risk that the User* will be unable to meet its obligations under this Contract*, then:
 - (i) Western Power* may require the User* to within 15 Business Days* nominate which of the User* or the Indemnifier* ("**Nominated Person***") is to provide security; and
 - (ii) within 15 Business Days* of the User*'s nomination under clause 9(a)(i), the Nominated Person*, at the User*'s election, must either:
 - (A) pay to Western Power* a cash deposit equal to the Charges* for two months' services; or
 - (B) provide an irrevocable and unconditional bank guarantee or equivalent financial instrument in terms acceptable to Western Power* (acting as a Reasonable and Prudent Person*), guaranteeing or otherwise securing the Charges* for two months' services; or

- (C) if Western Power* is satisfied, as a Reasonable and Prudent Person*, that the User*'s parent company's financial and technical resources are such that the User*'s parent company would be able to meet the User*'s obligations under this Contract* (including because the User*'s parent company meets at least one of the credit ratings given in clauses 9(b)(i) and 9(b)(ii)), procure from the User*'s parent company a guarantee substantially in the form set out in Schedule 8.
- (b) If the User* or the Indemnifier* has an unqualified credit rating of at least:
- (i) BBB from Standard and Poor's Australia Pty Ltd; or
 - (ii) Baa from Moody's Investor Service Pty Ltd,
- and provides evidence to this effect to Western Power*, then Western Power* is not entitled to determine under clause 9(a) that the User*'s financial resources are such that there would be a material risk that the User* will be unable to meet its obligations under this Contract*.
- (c) If any security held by Western Power* under clause 9(a)(ii)(A)) or 9(a)(ii)(B) at any time is not equal to the Charges* for two months' services, then the Nominated Person* must, within 15 Business Days* of a written request by Western Power* to the User*:
- (i) if the security is a cash deposit under clause 9(a)(ii)(A), provide Western Power* with an additional cash payment to increase the security so that it is equal to the Charges* for two months' services; or
 - (ii) if the security is a guarantee under clause 9(a)(ii)(B), replace the guarantee with another guarantee (that is in accordance with clause 9(a)(ii)(B)) in an amount that is equal to the Charges* for two months' services.
- (d) If any security held by Western Power* under clause 9(a)(ii)(A)) or 9(a)(ii)(B) is called upon by Western Power* or if that security ceases to be enforceable for any reason (including due to expiry of the security) then within 15 Business Days* the Nominated Person* must provide replacement security to Western Power* complying with the requirements of clause 9(a)(ii).
- (e) Where a guarantee has been provided to Western Power* by the User*'s parent company but Western Power* ceases to be satisfied, as a Reasonable and Prudent Person*, that the criteria in clause 9(a)(ii)(C) are met then by notice to the User* Western Power* may require the provision of a new form of security complying with the requirements of clause 9(a)(ii)(A) or 9(a)(ii)(B) which security must be provided within 15 Business Days* of service of Western Power*'s notice.

10. Security for Contribution*

Without limiting the User*'s security obligations related to clause 26, where Western Power* has determined in accordance with the Contributions Policy* that the User* is required to provide an irrevocable and unconditional bank guarantee (or equivalent financial instrument) in terms acceptable to Western Power* (acting as a Reasonable and Prudent Person*), guaranteeing the present value of any amount of any Contribution* to be made by the User* that remains unpaid or unprovided as calculated by Western Power* under the Contributions Policy*, the Nominated Person* must provide to Western Power* the requested bank guarantee (or equivalent financial instrument).

Technical Compliance Provisions

11. Good Electricity Industry Practice*

11.1 Western Power* must comply with Good Electricity Industry Practice*

Western Power* must comply with Good Electricity Industry Practice* when providing Services* and performing its obligations under this Contract*.

11.2 User* must comply with Good Electricity Industry Practice*

The User* must comply with Good Electricity Industry Practice* in using the Services* and performing its obligations under this Contract*.

12. Technical Rules*

12.1 Western Power* and the User* must comply

Western Power* and the User* must each comply with the Technical Rules.

12.2 User* to bear costs

- (a) The User* must bear its own costs in relation to compliance with the Technical Rules*.
- (b) Western Power* must bear its own costs in relation to compliance with the Technical Rules*.
- (c) Notwithstanding clause 12.2(b), where an act or omission of the User* in breach of this Contract* causes Western Power* to incur extra costs in order to ensure Western Power* complies with the Technical Rules*, the User* shall bear Western Power*'s reasonable extra costs so incurred to the extent that such costs are not already recovered from the User* or any other person under any other arrangement, including the Contributions Policy*.
- (d) Without limiting clause 12.2(c), where a User*'s equipment increases the fault levels in the Network*, the User* must bear Western Power*'s reasonable costs of any upgrades to the Network* required under the Technical Rules* to the extent that such costs are not already payable by the User* under the Contributions Policy*.
- (e) For the avoidance of doubt, the User* is not liable for any costs incurred by another user of the Network* arising from compliance by the other user with the Technical Rules*.
- (f) If Western Power* recovers costs referred to in clause 12.2(c) from another party in circumstances where the User* has already paid them to Western Power*, Western Power* must refund those costs without interest to the User*.

12.3 Actions of third parties

- (a) Subject to clause 6.2(e), if the actions of a third party cause a Party* to breach the Technical Rules*, then the Party* is not in breach of clause 12.1 unless the Party* has:
 - (i) been negligent; or
 - (ii) has not acted as a Reasonable and Prudent Person*.
- (b) Nothing in this clause 12.3 limits the operation of clauses 19.2 or 22 in respect of either Party*.

13. Technical characteristics of Facilities and Equipment*

- (a) The Parties* must record:
 - (i) in Part 2 of Schedule 3 any technical information that the User* was required to provide to Western Power* under the Applications and Queuing Policy*; and
 - (ii) in Part 3 of Schedule 3 any exemptions to the Technical Rules* given to the User* under Chapter 1 of the Technical Rules*
- (b) Each Party* must record any other information required to be recorded in this Contract* by the Technical Rules* within a database maintained by that Party*, and provide the other Parties* with reasonable access to the information upon request by that Party*.
- (c) The User* must not materially modify any Generating Plant* connected at a Connection Point* unless:
 - (i) the User* makes an Application* to do so under the Applications and Queuing Policy*; and
 - (ii) the Application* is processed by Western Power* under the Applications and Queuing Policy*, resulting in an Access Offer* for the change, which the User* accepted.

14. Cooperation

The User* and Western Power* (each acting as a Reasonable and Prudent Person*) must cooperate and coordinate with each other where reasonably necessary in relation to:

- (a) the planning, development, inspection, testing and commissioning of Facilities and Equipment* for a Connection Point* and Network Assets* for the Network*; and
- (b) the development and implementation of Maintenance* schedules for Facilities and Equipment* for a Connection Point* and Network Assets* for the Network*.

15. Access to premises

15.1 Parties* must allow reasonable rights of entry

Each Party* (“**Host Party***”) must allow, or use its reasonable endeavours to procure for, the other Party* (“**Guest Party***”) all reasonable rights of entry to the Host Party*'s premises:

- (a) for the purposes of constructing, installing, operating, maintaining and verifying the accuracy of any Metering Equipment* or other equipment or thing; and
- (b) to inspect for safety or other reasons the construction, installation, operation, maintenance and repair of any Metering Equipment* or other equipment or thing; and
- (c) for any other reasonable purpose connected with or arising out of this Contract*.

15.2 Entry made at risk of Guest Party*

Any entry under clause 15.1 is made in all respects at the expense and risk of the Guest Party*, who must, subject to clauses 19.3 and 19.5, make good any damage occasioned by or resulting from the entry, other than to the extent the damage is caused by:

- (a) fair wear and tear; or
- (b) the negligence or Default* of the Host Party* or any of its Workers* or Visitors*; or
- (c) a Force Majeure Event*.

15.3 Guest Party* obligations

A Guest Party* must:

- (a) before exercising a right of entry under clause 15.1, give reasonable notice to the Host Party* specifying the purpose, proposed time and estimated duration of entry, except where it is not practicable to do so due to any Emergency*; and
- (b) while exercising a right of entry under clause 15.1:
 - (i) act as a Reasonable and Prudent Person*; and
 - (ii) without limiting clause 15.3(b)(i), take steps that are reasonable in the circumstances to ensure that during the entry its Workers* and Visitors* cause as little inconvenience to the Host Party* as possible, except to the extent that it is not practicable to do so due to any Emergency*, and at all times comply with:
 - (A) all reasonable health and safety standards, induction and supervision requirements and other requirements of the Host Party*; and
 - (B) all reasonable and lawful directions by or on behalf of the Host Party*.

15.4 Third person's premises

To the extent that any equipment or thing relevant to the obligations or rights of a Party* under this Contract* is located on the premises of a third person, the Parties* must use their reasonable endeavours to secure for either or both of the Parties* a reasonable right of entry to the third person's premises.

16. Directions from System Operator*

16.1 Western Power* and the User* must comply

Without limiting the generality of clause 14, Western Power* and the User* must each comply with any directions given by the System Operator*.

17. Removal of equipment

On the permanent Disconnection* of Facilities and Equipment* at any Connection Point*:

- (a) Western Power* may dismantle, decommission and remove Western Power*'s Works* and any Metering Equipment* installed on the User's Premises*; and
- (b) under Western Power*'s reasonable instructions, the User* must dismantle and decommission or remove any of the User*'s Works* at or connected to the Connection Point*.

Common Provisions

18. Representations and warranties

18.1 The User*'s representations and warranties

- (a) The User* represents and warrants to Western Power* that:
 - (i) the User* has complied with the Applications and Queuing Policy* in the Access Arrangement* and the requirements in the Code* in respect of its Application* under the Access Arrangement*; and
 - (ii) the User*'s obligations under this Contract* are valid and binding and are enforceable against the User* under their terms; and

- (iii) this Contract* and any other transaction under it does not contravene the User*'s constituent documents or any Law* or any of the User*'s obligations or undertakings by which the User* or any of the User*'s assets are bound or cause to be exceeded any limitation on the User*'s or the User*'s directors' powers; and
 - (iv) neither the User* nor any of its related bodies corporate have immunity from the jurisdiction of a court or from legal process (whether through service of notice, attachment prior to judgment, attachment in aid of execution, execution or otherwise).
- (b) The representations and warranties in clause 18.1 are to be taken to be made on each day on which:
- (i) this Contract* is in effect; or
 - (ii) any amount payable by the User* to Western Power* under this Contract* is or may be outstanding.
- (c) To the maximum extent permitted by Law*, the only warranties given by and terms which apply to the User* under this Contract* are those expressly contained in this Contract*, and all warranties and terms implied by Law*, including those on the part of the User* implied by the *Competition and Consumer Act 2010* of the Commonwealth or the *Fair Trading Act 1987 (WA)* or any other Law* to similar effect do not apply to this Contract*.
- (d) If at Law* the exclusion of any warranty or term is prohibited, then the User*'s liability in respect of a breach of such warranty or term is limited to the maximum extent permitted by Law*. For example, where any Law* permits the User* to limit its liability in respect of a breach of an implied warranty or condition to the replacement or resupply of equivalent goods and services, then the User*'s liability will be so limited.

18.2 Western Power*'s representations and warranties

- (a) Western Power* represents and warrants to the User* that:
- (i) Western Power* has complied with the Applications and Queuing Policy* in the Access Arrangement* and the requirements in the Code* in respect of the User*'s Application* under the Access Arrangement*; and
 - (ii) Western Power*'s obligations under this Contract* are valid and binding and are enforceable against Western Power* under their terms; and
 - (iii) this Contract* and any other transaction under it does not contravene Western Power*'s constituent documents or any Law* or any of Western Power*'s obligations or undertakings by which Western Power* or any of Western Power*'s assets are bound or cause to be exceeded any limitation on Western Power*'s or Western Power*'s directors' powers; and
 - (iv) neither Western Power* nor any of its related bodies corporate have immunity from the jurisdiction of a court or from legal process (whether through service of notice, attachment prior to judgment, attachment in aid of execution, execution or otherwise).
- (b) The representations and warranties in clause 18.1(c) are to be taken to be made on each day on which:
- (i) this Contract* is in effect; or
 - (ii) any amount payable by Western Power* to the User* under this Contract* is or may be outstanding.
- (c) To the maximum extent permitted by Law*, the only warranties given by and terms which apply to Western Power* under this Contract* are those expressly contained in this Contract*, and all warranties and terms implied by Law*, including those on the part of Western Power* implied by the *Competition and Consumer Act 2010* of the Commonwealth or the *Fair Trading Act 1987(WA)* or any other Law* to similar effect do not apply to this Contract*.

- (d) If at Law* the exclusion of any warranty or term is prohibited, then Western Power*'s liability in respect of a breach of such warranty or term is limited to the maximum extent permitted by Law*. For example, where any Law* permits Western Power* to limit its liability in respect of a breach of an implied warranty or condition to the replacement or resupply of equivalent goods and services, then Western Power*'s liability will be so limited.

18.3 Indemnifier*'s representations and warranties

The Indemnifier* represents and warrants to Western Power* that, as at the Commencement Date*, there has been no material change in the Indemnifier*'s financial position since the date Western Power* received information from the Indemnifier* stating that position.

19. Liability and indemnity

19.1 No several liability

All parties constituting the User* shall be liable under this Contract* jointly, or jointly and severally, but not severally.

19.2 Liability for Direct Damage*

Subject to the terms of this Contract*:

- (a) a Party* who
- (i) is negligent; or
 - (ii) commits a Default* under this Contract*,
- is liable to the other Party* for, and must indemnify the other Party* against, any Direct Damage* caused by, consequent upon or arising out of the negligence or Default*; and
- (b) the Indemnifier* must indemnify Western Power* in respect of the liabilities of the User* under this Contract*.

19.3 Exclusion of Indirect Damage*

- (a) Subject to clause 19.3(b):
- (i) either or both of the User* or the Indemnifier* is not in any circumstances liable to Western Power* for any Indirect Damage* suffered by Western Power*, however arising; and
 - (ii) Western Power* is not in any circumstances liable to either or both of the User* or the Indemnifier* for any Indirect Damage* suffered by the User*, however arising.
- (b) Where this Contract* states that "the exclusion of Indirect Damage* in clause 19.3 does not apply", or words to a similar effect, in relation to a matter, then:
- (i) the exclusion of Indirect Damage* in clause 19.3 does not apply in relation to that matter; and
 - (ii) the Parties*' liability in relation to the matter is to be determined by Law*, and to avoid doubt the definition of Indirect Damage* in this Contract* is to be disregarded for the purposes of that determination.

19.4 Fraud

- (a) If Western Power* is fraudulent in respect of its obligations to the User* under this Contract*, then Western Power* is liable to either the User* or the Indemnifier* for, and is to indemnify both the User* and the Indemnifier* against, any damage caused by, consequent upon or arising out of the fraud. In this case, the exclusion of Indirect Damage* in clause 19.3 does not apply.

- (b) If the User* or the Indemnifier* is fraudulent in respect of its obligations to Western Power* under this Contract*, then the User* or the Indemnifier* is liable to Western Power* for, and is to indemnify Western Power* against, any damage caused by, consequent upon or arising out of the fraud. In this case, the exclusion of Indirect Damage* in clause 19.3 does not apply.

19.5 Limitation of liability

- (a) Subject to clause 19.5(c), the maximum liability of Western Power* to the User* and the Indemnifier* collectively under and in connection with this Contract* is limited to an amount of \$5 million in the aggregate and refreshed annually each 1 July, except that the liability described in clauses 7,8 and 20 are not counted for the purposes of Western Power*'s maximum liability under this Contract*.
- (b) Subject to clause 19.5(c), the maximum liability of both the User* and the Indemnifier* collectively to Western Power* under and in connection with this Contract* is limited to the lesser of:
- (i) an amount of \$80 million in the aggregate, refreshed annually each 1 July; and
 - (ii) the sum of:
 - (A) for each Connection Point* at which Generation Plant* (other than wind or solar powered generation) is connected at a voltage of 66 kV and above - \$22 million in the aggregate, refreshed annually each 1 July; and
 - (B) for each Connection Point* at which wind or solar powered Generation Plant* is connected at a voltage of 66 kV or above - \$11 million in the aggregate, refreshed annually each 1 July; and
 - (C) for each Connection Point* at which Generation Plant* is connected at a voltage below 66 kV - \$1.2 million in the aggregate, refreshed annually each 1 July; and
 - (D) for each Connection Point* at which Consuming* plant is connected at a voltage of 66 kV and above - \$6 million in the aggregate, refreshed annually each 1 July; and
 - (E) for every 100 Connection Points* at which Consuming* plant is connected at a voltage below 66 kV - \$1.2 million in the aggregate, refreshed annually each 1 July,

except that the liabilities described in clauses 7, 8 and 20 are not counted for the purposes of both the User*'s and the Indemnifier*'s collective maximum liability under this Contract*.

- (c) At the end of each period of three Years* from the Commencement Date*, the Parties* shall negotiate in good faith to re-set the maximum liability amounts applicable under clauses 19.5(a) and 19.5(b) having regard for any relevant changed circumstances in that period. If the Parties* are unable to agree on re-setting of the maximum liability amounts, the matter shall be determined as a Dispute*. The resolver of the Dispute* is required to consider any changed circumstances during the period and adjust the maximum liability limit the subject of the Dispute* to a reasonable limit, first having regard to the maintenance of the existing limit and then reducing or increasing the limit by reason of any relevant changed circumstances found to have occurred.

19.6 Procedure for party seeking to rely on indemnity

If any Claim* is made or instituted against:

- (a) either or both of the User* or the Indemnifier* in respect of which either or both of the User* or the Indemnifier* ("**Indemnified Party***") may seek to claim indemnity under this Contract* against Western Power* ("**Indemnifying Party***"); or
- (b) Western Power* in respect of which Western Power* ("**Indemnified Party***") may seek to claim indemnity under this Contract* against either or both of the User* or the Indemnifier* ("**Indemnifying Party***"),

the following procedure applies:

- (c) the Indemnified Party* must give notice of the Claim* to the Indemnifying Party* as soon as reasonably practicable; and
- (d) the Indemnified Party* must not admit, compromise, settle or pay any Claim* or take any other steps which may in any way prejudice the defence or challenge of the Claim* without the prior written consent of the Indemnifying Party* (which must not be unreasonably withheld) except as may be reasonably required in order to defend any judgment against the Indemnified Party* (to avoid doubt, Part 1E of the Civil Liability Act 2002 (WA) applies in respect of any 'apology' (as defined in Section 5AF of that Act) given by the Indemnified Party*); and
- (e) the Indemnified Party* must permit the Indemnifying Party* to take, at the Indemnifying Party*'s expense, any reasonable action in the name of the Indemnified Party* to defend or otherwise settle the claim as the Indemnifying Party* may reasonably require; and
- (f) the Indemnified Party* must ensure that the Indemnifying Party* and its representatives are given reasonable access to any of the documents, records, staff, premises and advisers of the Indemnified Party* as may be reasonably required by the Indemnifying Party* in relation to any action taken or proposed to be taken by the Indemnifying Party* under clause 19.6(e).

19.7 Obligation to pay and right to indemnities survives termination

- (a) A Party*'s and the Indemnifier*'s obligation to pay an amount to another Party* under this Contract* is a continuing obligation, separate and independent from the other obligations of either or both of the Party* and the Indemnifier* and survives termination (for any reason) of this Contract*.
- (b) Each indemnity in this Contract* is a continuing obligation, separate and independent from the other obligations of both the Parties* and the Indemnifier* and survives termination (for any reason) of this Contract*. It is not necessary for either or both of a Party* or an Indemnifier* to incur expense or make payment before enforcing a right of indemnity conferred by this Contract*.

19.8 Apportionment of liability

- (a) For the avoidance of doubt, where either or both of the User* or the Indemnifier* is liable to, or is to indemnify, the other Party* under this Contract*, the liability or indemnity owed by either or both of the User* or the Indemnifier* is limited to the proportion of the damage suffered by Western Power* as a consequence of the Default*, negligence or fraud of the either or both of the User* or the Indemnifier* giving rise to the liability or indemnity.
- (b) For the avoidance of doubt, where Western Power* is liable to, or is to indemnify, either or both of the User* or the Indemnifier* under this Contract*, the liability or indemnity owed by Western Power* is limited to the proportion of the damage suffered by either or both of the User* or the Indemnifier* as a consequence of the Default*, negligence or fraud of Western Power* giving rise to the liability or indemnity.

19.9 Mitigation of losses

A Party* and the Indemnifier* must take such action as is reasonably required to mitigate any loss or damage to it for which indemnity may be claimed under this Contract* or otherwise.

19.10 Recoveries under insurance

- (a) To the extent that Western Power* recovers against any insurer under an insurance policy effected by either Party* or the Indemnifier* for a Claim* in connection with this Contract* in respect of which either or both of the User* or the Indemnifier* is liable, for any reason (including negligence), the amount as recovered shall, for the purposes of clause 19.5, be deemed to have been paid.

- (b) To the extent that the User* recovers against any insurer under an insurance policy effected by either Party* or the Indemnifier* for a Claim* in connection with this Contract* in respect of which Western Power* is liable, for any reason (including negligence), the amount as recovered shall, for the purposes of clause 19.5, be deemed to have been paid.

20. Personal injury

The liability for any personal injury Claim* will be determined under Law*.

21. Insurances

21.1 The User*'s insurances

- (a) Subject to clause 21.1(b), the User* must obtain and maintain insurance, commencing from the Commencement Date*, covering those matters, on the terms and basis, and for the amounts, referred to in Part 1 of Schedule 5.
- (b) To the extent that Western Power* consents (such consent not to be unreasonably withheld), the User* may self-insure for some or all of the matters and amounts referred to in Schedule 5.
- (c) For each Connection Point*, prior to the Start Date* of a Service* at the Connection Point*, and at such other times as Western Power* shall reasonably request in writing (such request not to be made more than once in respect of a 12 month period unless extraordinary circumstances apply), the User* must provide Western Power* with certificates of currency for the insurances required under clause 21.1(a).

21.2 Western Power*'s insurances

- (a) Subject to clause 21.2(b), Western Power* must obtain and maintain insurance, commencing from the Commencement Date*, covering those matters, on the terms and basis, and for the amounts referred to in Part 2 of Schedule 5.
- (b) To the extent that the User* consents (such consent not to be unreasonably withheld), Western Power* may self-insure for some or all of the matters and amounts referred to in Part 2 of Schedule 5.
- (c) Western Power* must, before the Commencement Date* and at such other times as the User* reasonably requests in writing (such request not to be made more than once in respect of a 12 month period unless extraordinary circumstances apply), provide the User* with certificates of currency for the insurances required under clause 21.2(a).

21.3 Names of insured

In respect of the insurances referred to in Schedule 5 Part 1 (a)(i) (public and products liability insurance) and Schedule 5 Part 1 (a)(iv) (contractors' plant and equipment insurance) the insurance must be:

- (a) effected in the joint names of the Parties*; or
- (b) Western Power* must be endorsed on the policies referred to in Schedule 5 Part 1 and the User* must be endorsed on the policies referred to in Schedule 5 Part 2,

for their respective rights and interests.

21.4 Cross liability

Every policy of public and products liability insurance must include a cross liability clause in which the insurer expressly accepts that the term insured applies to every person who is named in the policy as if there was a separate policy of insurance for each of them but not so as to increase the limit of liability.

21.5 Notice of cancellation

A Party* must notify the other Party* immediately on being advised by its insurer of cancellation or non-renewal of any of insurance policies in Schedule 5, and immediately use all reasonable endeavours to reobtain the insurance policies in Schedule 5.

21.6 Further obligation

Both Parties* and the Indemnifier* must not do any act or make any omission that would be grounds for an insurer to refuse to pay a claim under any of the policies of insurance.

22. Force Majeure*

22.1 Affected Person*'s obligations are suspended

If a Party* (“**Affected Person***”) is unable wholly or in part to perform any obligation (“**Affected Obligation***”) under this Contract* (other than an obligation to pay money) because of the occurrence of a Force Majeure Event*, then, subject to this clause 22.1, the Affected Person*'s obligation to perform the Affected Obligation* is suspended to the extent that, and for so long as, the Affected Person*'s ability to perform the Affected Obligation* is affected by the Force Majeure Event* (such period being the “**FM Period***”).

22.2 When Services* are Curtailed*

Without limiting clause 22.1, Western Power*'s obligation in respect of a Connection Point* to provide the Services* is suspended during any period that the provision of the Services* in respect of that Connection Point* is Curtailed* under clause 25.1, to the extent of the Curtailment*.

22.3 Affected Person*'s obligations

Subject to clauses 22.4 and 22.6, if a Force Majeure Event* occurs and the Affected Person* is unable wholly or in part to perform any obligation under this Contract*, then the Affected Person* must:

- (a) notify the other Party* if the FM Period* continues for a period of two days or longer; and
- (b) use reasonable endeavours (including incurring any reasonable expenditure of funds and rescheduling personnel and resources) to:
 - (i) mitigate the consequences of the Force Majeure Event*; and
 - (ii) minimise any resulting delay in the performance of the Affected Obligation*.

22.4 In case of breach

An Affected Person* is not obliged to incur an expenditure in complying with clause 22.3(b) if the Force Majeure Event* is constituted by a breach of, or failure to comply with, this Contract* by the other Party*.

22.5 Failure to minimise delays

If an Affected Person* fails to comply with clause 22.3(b)(ii), then the only consequence of that failure is that the FM Period* is reduced by the period of any delay in the performance of the Affected Obligation* attributable to that failure.

22.6 Settlement of a labour dispute

The settlement of a labour dispute which constitutes a Force Majeure Event* is a matter which is within the absolute discretion of the Affected Person*.

23. Provisions of Access Arrangement* on Supplementary Matters* apply

The provisions of the Access Arrangement* in respect of Supplementary Matters* apply also as terms of this Contract*, to the extent they are relevant.

24. User* does not acquire interest in Network*

To avoid doubt, nothing in, and nothing done under or in connection with, this Contract* causes the User* to acquire any right, title or interest in or to the Network* or any part of it.

25. Curtailment*

25.1 Western Power* may Curtail* Services*

Western Power* may, in accordance with Good Electricity Industry Practice*, Curtail* the provision of Services* in respect of a Connection Point*:

- (a) to carry out planned Augmentation* or Maintenance* to the Network*; or
- (b) to carry out unplanned Maintenance* to the Network* where Western Power* considers it necessary to do so to avoid injury to any person or material damage to any property or the environment; or
- (c) if there is any breakdown of or damage to the Network* that affects Western Power*'s ability to provide Services* at that Connection Point*; or
- (d) if a Force Majeure Event* occurs affecting Western Power*'s ability to provide Services* at the Connection Point*, for so long as Western Power*'s ability to provide Services* is affected by the Force Majeure Event*; or
- (e) to the extent necessary for Western Power* to comply with a Law*.

25.2 Extent of Curtailment*

Western Power* must keep the extent and duration of any Curtailment* under clause 25.1 to the minimum reasonably required in accordance with Good Electricity Industry Practice*.

25.3 Notification of Curtailment*

Western Power* must use reasonable endeavours to notify the User* of any Curtailment* under clause 25.1 as soon as practicable.

25.4 User* must comply with Curtailment*

If Western Power* notifies the User* of a Curtailment* of Services* under clause 25.3 in respect of a Connection Point*, the User* (acting as a Reasonable and Prudent Person*) must comply, or procure compliance, with any reasonable requirements set out in the notice concerning the Curtailment*.

25.5 Contract* does not limit other powers and rights

This Contract* does not limit any power or right conferred on Western Power* by any other agreement between the Parties* or any Law*, including Section 57 of the Energy Operators (Powers) Act 1979 (WA).

26. Payments and recoveries under the Contributions Policy*

The Parties* must comply with the provisions set out in Schedule 4 regarding any Contributions*.

27. Default*

27.1 Default*

A Party* is in “Default*” if:

- (a) that Party* defaults in the due and punctual payment, at the time and in the manner required for payment by this Contract*, of any amount payable under this Contract*; or
- (b) that Party* defaults in the due and punctual performance or observance of any of its obligations contained or implied by operation of Law* in this Contract*; or
- (c) an Insolvency Event* occurs in respect of that Party*; or
- (d) that Party* materially breaches any representation or warranty given to the other Party* under this Contract*.

27.2 Default* by the User*

In the event of the User’s Default*, then Western Power* may:

- (a) notify the User* of the User’s Default* and require the User* to remedy the User’s Default*; or
- (b) if the User’s Default* is a Default* in the payment of any amount and has not been remedied by the end of the third Business Day* after the notice was given, De-energise*, or Curtail* the provision of Services* in respect of, all or any of the User*’s Connection Point*s from the Network* whilst the User’s Default* is continuing; or
- (c) if the User’s Default* is any other type of Default* and at the end of the 5th Business Day* after the notice was given:
 - (i) the User’s Default* has not been remedied; or
 - (ii) the User* has not to the reasonable satisfaction of Western Power* begun remedying the User’s Default* or has begun remedying but is not, in the reasonable opinion of Western Power*, diligently proceeding to remedy the User’s Default*,

De-energise*, or Curtail* the provision of Services* in respect of, all or any of the User*’s Connection Point*s from the Network* whilst the User’s Default* is continuing; and
- (d) if the User’s Default* has not been remedied at the end of the 20th Business Day* after the notice was given, terminate this Contract*.

27.3 Western Power*’s rights not affected

The User’s Default* under clause 27.2 does not prejudice the rights or remedies accrued to Western Power* at the date of the User’s Default*.

27.4 Default* by Western Power*

If Western Power* is in Default*, the User* may:

- (a) notify Western Power* of Western Power's Default* and require Western Power* to remedy the Default*; and
- (b) if Western Power's Default* has not been remedied at the end of the 20th Business Day* after the notice was given:
 - (i) terminate this Contract*; or
 - (ii) withhold payment of any charges payable by the User* from the date of Default* under this Contract* for so long as the Default* continues unremedied (and no interest is payable by the User* on any amounts so withheld provided they are paid within 10 Business Days* after the Default* is remedied).

27.5 User*'s rights not affected

Western Power's Default* under clause 27.4 does not prejudice the rights or remedies accrued to the User* at the date of Western Power's Default*.

28. Termination

28.1 Termination

- (a) Subject to clause 28.1(b), this Contract* terminates on the Termination Date*.
- (b) This Contract* may be terminated before the Termination Date* by:
 - (i) written agreement between Western Power* and the User*; or
 - (ii) notice by either Party* at any time at which this Contract* does not include at least one Connection Point*; or
 - (iii) notice by either Party* where there is a Default* by the other Party* under this Contract*, subject to clauses 27.2 or 27.4, as the case may be; or
 - (iv) notice by either Party* to an Affected Person* if a Force Majeure Event* occurs and then:
 - (A) the Affected Person* is unable wholly or in part to perform any obligation under this Contract*; and
 - (B) the FM Period* continues for a period of greater than 180 days in aggregate in any 12-month period.
- (c) On termination of this Contract* Western Power* may Disconnect* any one or more of the User*'s Connection Points*, permanently (under clause 17) or otherwise.
- (d) On termination of this Contract*, unless otherwise agreed by the Parties*:
 - (i) the User* must pay any unpaid amount owed to Western Power* pursuant to this Contract*; and
 - (ii) Western Power* must pay any unpaid amount owed to the User* pursuant to this Contract*.

28.2 Rights of Parties* not affected

Termination of this Contract* under clause 28.1(b) does not prejudice the rights or remedies accrued to either Party* at the date of termination.

29. Disputes

29.1 Party* may give notice of Dispute* and require Representatives' Meeting*

If a Dispute* arises between the Parties*, either Party* may give to the other Party* written notice setting out the material particulars of the Dispute* and requiring duly authorised representatives of each Party* to meet at a place, agreed between the Parties*, within 10 Business Days* of the date of receipt of such notice by the relevant Party* ("**Receipt Date***"), to attempt in good faith by way of discussions and using their best endeavours to resolve the Dispute* ("**Representatives' Meeting***") and the Parties* must do so.

29.2 Party* may require CEO Meeting*

If the Dispute* is not resolved (as evidenced by the terms of a written settlement signed by each Party*'s duly authorised representative) within 20 Business Days* after the Receipt Date* then either Party* may, by written notice, require that the senior executive officer of each Party* meet at a place agreed between the Parties* within 30 Business Days* after the Receipt Date* and must attempt in good faith by way of discussions and using their best endeavours to resolve the Dispute* within 35 Business Days* after the Receipt Date* ("**CEO Meeting***").

29.3 Method of Meetings

- (a) A Representatives' Meeting* or CEO Meeting* may be conducted in person, by telephone, video conference or similar method of real time communication.
- (b) If the Parties* are unable to agree on a meeting place under clause 29.1 or 29.2 in the allocated time frame, the meeting will take place at a place determined by Western Power* (acting as a Reasonable and Prudent Person*).

29.4 Party* may commence court proceedings

If, after complying with the process set out in clauses 29.1 and 29.2 a Dispute* is not resolved, then either Party* may commence an action to resolve the Dispute* through litigation and other court processes.

29.5 Obligations must be performed

A Party* must continue to perform its obligations under this Contract* despite the existence of a Dispute*, unless otherwise agreed.

30. Set off

30.1 Party* may set off payment

A Party* ("**First Party***") may set off any amount due for payment by it to the other Party* under this Contract* against any amount which is due for payment by the other Party* to the First Party* under this Contract*.

30.2 No other set off permitted

Except as permitted in clause 30.1, no set off is permitted by either Party* in connection with this Contract*, whether under this Contract* or otherwise.

31. Assignment* by User*

31.1 User* may make Bare Transfer*

Subject to clause 31.2, the User* may make a Bare Transfer* of its Access Rights* under the Transfer and Relocation Policy* without Western Power*'s prior written consent.

31.2 User* must notify Western Power* of Bare Transfer* details

If the User* makes a Bare Transfer*, the User* must notify Western Power* of:

- (a) the identity of the assignee; and
- (b) the nature of the Assigned* Access Rights*,

before the assignee may commence using the Assigned* Access Rights*.

31.3 Assignment* other than Bare Transfer*

For an Assignment* other than a Bare Transfer*, the User* may Assign* its Access Rights* subject to compliance with the Transfer and Relocation Policy*.

32. Corporate restructuring of Western Power*

32.1 If Western Power* is restructured

If Western Power* is restructured under government policy:

- (a) by Law*; or
- (b) through other means, including the:
 - (i) use of subsidiary or associated companies; or
 - (ii) transfer of assets, rights and liabilities,

then the rights and obligations of Western Power* under this Contract* are assigned to and assumed by the appropriate legal entity pursuant to the restructure.

32.2 User*'s consent not required

A restructure, transfer or assignment under clause 32.1 does not require the User*'s approval or consent.

33. Confidentiality

33.1 Confidential information*

This Contract* and information exchanged between the Parties* under this Contract* or during the negotiations preceding this Contract* is confidential to them if:

- (a) the information disclosed contains a notification by the disclosing Party* that the information is confidential; or
- (b) the circumstances in which the information was disclosed or the nature of the information disclosed may reasonably be considered as being confidential; or
- (c) the information constitutes trade secrets; or
- (d) the information has a commercial value to a Party* which would be destroyed or diminished by the publication of the information; or

- (e) the information relates to the business, professional, commercial or financial affairs of a Party* and the value to the Party* would be destroyed or diminished by the publication of the information; or
- (f) the information is about or relating to a Controller* or a person who is proposed to be a Controller*.

33.2 When information is not confidential

Clause 33.1 does not apply to information which, without breach of this Contract* or other breach of confidence:

- (a) is or becomes generally and publicly available; or
- (b) is lawfully obtained by a Party* from a person other than a Party* or a Related Body Corporate* of a Party* where such person is entitled to disclose the Confidential Information* ; or
- (c) is, at the date of this Contract*, lawfully in the Possession* of the recipient of the Confidential Information* through sources other than the Party* which supplied the information.

33.3 Prohibited disclosure

Subject to clause 33.4, an Information Recipient* must not disclose or allow to be disclosed any Confidential Information* to a Third Party Recipient*.

33.4 Permitted disclosure

- (a) An Information Recipient* may disclose or allow to be disclosed any Confidential Information* to a Third Party Recipient* in the following circumstances:
 - (i) with written consent of the Information Provider*; or
 - (ii) to employees, a Related Body Corporate* or legal advisers, auditors or other consultants of the Party* requiring information for the purposes of this Contract* or for the purposes of providing professional advice in relation to this Contract*; or
 - (iii) to a bona fide proposed assignee of a Party* to this Contract* or registered shareholder of 20 percent or more of the voting shares in a Party*; or
 - (iv) if required by Law* or by an authority (including the Independent Market Operator*) which has jurisdiction over a Party* or any of its Related Bodies Corporate* or by the rules of a stock exchange which has jurisdiction over a Party* or any of its Related Bodies Corporate*; or
 - (v) if required for the purposes of prosecuting or defending a Dispute* or if otherwise required in connection with legal proceedings related to this Contract*.
- (b) Nothing in clause 33.4 limits Western Power*'s obligations to comply with Chapter 13 of the Code*.

33.5 Third party disclosure

An Information Recipient* disclosing information under clause 33.4 must:

- (a) use all reasonable endeavours to ensure that a Third Party Recipient* does not disclose the Confidential Information* except in the circumstances permitted by clause 33.4; and
- (b) notify the Third Party Recipient* that it has a duty of confidence to the Information Provider* in respect of the Confidential Information*; and
- (c) except to the extent that the Third Party Recipient* is under an existing enforceable legal obligation to maintain the confidence of the Confidential Information* as contemplated in clause 33.5(b), procure a written confidentiality undertaking from the Third Party Recipient* consistent with clauses 33.1 to 33.10.

33.6 No unauthorised copying

Subject to any obligation under any Law* to do so, a Party* must not copy any document containing the other Party*'s Confidential Information* except as necessary to perform this Contract*.

33.7 Secure storage

A Party* must ensure that proper and secure storage is provided for the Confidential Information* while in its Possession*, provided that if a Party* is a corporation it may retain any such documents or parts of documents that form part of board papers (or other formal approval processes) of such corporation and which are required to be retained by that corporation under usual corporate governance requirements.

33.8 Return of materials

Subject to any obligation under any Law* relating to records retention and subject to prudent recording-keeping procedures (including, in contemplation of potential legal action), a Party* must return all documents containing the other Party*'s Confidential Information*, including all copies, to the other Party* on termination or expiration of this Contract*, or, upon request by the other Party*, destroy all such documents.

33.9 Remedies

Each Party* acknowledges and agrees that any breach or threatened breach of clauses 33.1 to 33.10 may cause a Party* immediate and irreparable harm for which damages alone may not be an adequate remedy. Consequently, each Party* has the right, in addition to any other remedies available at Law*, to seek injunctive relief or compel specific performances of these clauses 33.1 to 33.10 in respect of any such breach or threatened breach.

33.10 Survival of obligations

- (a) Clauses 33.1 to 33.10 survive the termination of this Contract* and remain enforceable for a period of 7 years from the date of such termination.
- (b) Any person who ceases to be a Party* to this Contract* continues to be bound by these clauses 33.1 to 33.10.

34. Ring Fencing

If Western Power* is an Integrated Provider*, then a court or tribunal, in considering whether:

- (a) representations made by Workers* of the Other Business* can or ought be attributed to the Network Business*, or vice versa; or
- (b) a notice or other information given to a Worker* of the Other Business* has been communicated, or should be deemed to have been communicated, to the Network Business*, or vice versa; or
- (c) a Contract* entered into by the Other Business* does or ought express or imply an intention to vary this Contract*, or vice versa,

must have fair and reasonable regard to:

- (d) the fact that Western Power* comprises a Network Business* and an Other Business* and the distribution of personnel and responsibilities between those businesses; and
- (e) the intent and purpose of Western Power*'s obligations under Chapter 13 of the Code* and anything done or not done by Western Power* in connection with those obligations.

35. Notices

35.1 Requirements for Communications*

Except as provided in clause 35.2, or where given under the electronic communications protocol in Schedule 7, a Communication* must be:

- (a) in writing (which includes any Electronic* form capable of being reduced to paper writing by being printed); and
- (b) delivered or sent to the address of the addressee as specified in Schedule 6 by one or more of the following means:
 - (i) by hand delivery; or
 - (ii) by ordinary letter post (airmail if posted to or from a place outside Australia); or
 - (iii) by way of a courier service for hand delivery; or
 - (iv) by facsimile transmission to the facsimile number of the addressee; or
 - (v) Electronically* to the email address of the addressee.

35.2 Operational and urgent Communication*

Where this Contract* expressly provides:

- (a) and where the Parties* agree in writing, Communications* of a day to day operational nature; or
- (b) Communications* given in an operational Emergency*,

may be given orally and confirmed in writing, under the electronic communications protocol in Schedule 7, within 5 Business Days*.

35.3 Communication* takes effect

Subject to clause 35.4, a Communication* takes effect from the later of:

- (a) the time it is received; and
- (b) any later time specified in the Communication*.

35.4 Deemed receipt

For the purposes of this Contract*:

- (a) a Communication* delivered by hand to the address of a Party* (including where a reputable courier service is used for that purpose) is deemed to be received if it is handed (with or without acknowledgment of delivery) to any person at the address who, in the reasonable judgment of the person making the delivery (upon making appropriate enquiries):
 - (i) appears to be; and
 - (ii) represents himself or herself as, a representative of the Party* to whom the Communication* is addressed;
- (b) a Communication* which is posted is deemed to be received by the Party* to whom the Communication* is addressed:
 - (i) where the Communication* is sent from outside the country of the address to which it is sent – 10 Business Days* after the day of posting; and
 - (ii) otherwise – three Business Days* after the day of posting;
- (c) a Communication* sent by facsimile transmission which is transmitted:

- (i) on or before 3 pm on a Business Day* is deemed to have been received by the Party* on that Business Day*; and
- (ii) after 3 pm on a Business Day*, or on a day which is not a Business Day*, is deemed to have been received by the Party* on the first Business Day* following the date of transmission,

provided that the sender of the Communication* is able to produce a transmission report generated by the sender's facsimile machine (or other facsimile transmission device), showing successful uninterrupted facsimile transmission of all pages of the relevant Communication* to the facsimile number of the addressee;

- (d) A Communication* sent Electronically*, other than under the electronic communications protocol in Schedule 7, is deemed to have been received by the Party* under the Electricity Industry Metering Code 2005 Communication Rules; and
- (e) a Communication* sent under the electronic communications protocol in Schedule 7 is deemed to be received by the party as specified in the electronic communications protocol in Schedule 7.

36. Change of address

A Party* may at any time, by notice given to the other Party* to this Contract*, designate a different email or postal address or facsimile number for the purpose of these clauses 35.1 to 36.

37. Miscellaneous

37.1 Compliance

Each Party* to this Contract* must comply with all applicable Laws*.

37.2 Variation

- (a) Subject to clause 37.2(b), a purported agreement between Western Power* and the User* to revoke, substitute or amend any provision of this Contract* has no effect unless it is in writing.
- (b) Clause 37.2 does not prevent the User* and Western Power* from agreeing by non-written means under clause 35.2 to revoke, substitute or amend any provision of this Contract* in an Emergency* provided that the non-written revocation, substitution or amendment applies only while the effects of the Emergency* subsist.

37.3 No third party benefit

This Contract* does not confer any right or benefit on a person other than the User* and Western Power*, despite the person being named or identified, or belonging to a class of persons named or identified, in this Contract*.

37.4 Duty

The User* is liable for and must pay any duty that is assessed on this Contract* under the Duties Act 2008 (WA). If it is dutiable, the User* must produce this Contract* to the Office of State Revenue for assessment.

37.5 Costs

Each Party* must pay its own costs, charges, expenses, disbursements or fees in relation to:

- (a) the negotiation, preparation, execution, performance, amendment or registration of, or any notice given or made; and

(b) the performance of any action by that Party* in compliance with any liability arising, under this Contract*, or any agreement or document executed or effected under this Contract*, unless this Contract* provides otherwise.

37.6 Waiver

A provision of this Contract* may only be waived by a Party* giving written notice signed by a duly authorised representative to the other Party*.

37.7 Entire agreement

This Contract* constitutes the entire agreement between the Parties* as to its subject matter and, to the extent permitted by Law*, supersedes all previous agreements, arrangements, representations or understandings.

37.8 Severance

If the whole or any part of this Contract* is void, unenforceable or illegal in a jurisdiction, it is severed for that jurisdiction. The remainder of this Contract* has full force and effect and the validity or enforceability of the provision in any other jurisdiction is not affected. This clause 37.8 has no effect if the severance alters the basic nature of this Contract* or is contrary to public policy.

37.9 Counterpart execution

- (a) This Contract* may be signed in any number of counterparts and all such signed counterparts, taken together, shall be deemed to constitute one and the same instrument even though all Parties* may not have signed each separate counterpart.
- (b) Where it has been signed in counterparts, the date of this Contract* shall be taken to be the day on which the last of the Parties* to give such notice gives notice in writing or by fax or electronic mail to the other Parties* that it has signed a counterpart, such notice being accompanied by a copy, or a printable Electronic* image, of the whole of that counterpart.

37.10 Further assurance

Each Party* agrees, at its own expense, on the request of another Party*, to do everything reasonably necessary to give effect to this Contract* and the transactions contemplated by it, including, but not limited to, the execution of documents.

37.11 Authorised officers

- (a) Notice, approval, consent or other Communication* given under this Contract* may be given by an Authorised Officer* of a Party* specified in Schedule 6 to an Authorised Officer* of another Party* specified in Schedule 6.
- (b) A Party* may at any time, by notice given to the other Party*, add or replace an Authorised Officer* for the purposes of clause 37.11.

37.12 Merger

The warranties, undertakings and indemnities in this Contract* do not merge on termination of this Contract*.

37.13 Remedies

The rights, powers and remedies provided in this Contract* are cumulative with and not exclusive of the rights, powers or remedies provided by law independently of this Contract*.

37.14 Governing Law*

- (a) This Contract* and the transactions contemplated by this Contract* are governed by the Law* in force in Western Australia.
- (b) Without limiting clause 37.14, each Party* irrevocably and unconditionally submits to the non-exclusive jurisdiction of the Courts of Western Australia and the Courts of appeal from them for the purpose of determining any Dispute* concerning this Contract* or the transactions contemplated by this Contract*.

Execution clause:

Executed as an agreement on the _____ day of _____ 20____ by:

EXECUTED for and on behalf of **ELECTRICITY NETWORKS CORPORATION**
ABN 18 540 492 861 in accordance with paragraph 135(4) of the Electricity Corporations Act 2005 (WA) and an authority dated 01/07/2010:

Signature of Authorised Officer

Signature of a Authorised Officer

Full name

Full name

Position title

Position title

EXECUTED by **[NAME OF PARTY & ABN/ACN/ARBN]** in accordance with section 127(1) of the Corporations Act 2001 (Cth):

Signature of Director

Signature of Directory/Company Secretary

Full name

Full name

EXECUTED by **[NAME OF PARTY & ABN/ACN/ARBN]** in accordance with section 127(1) of the Corporations Act 2001 (Cth):

Signature of Director

Signature of Directory/Company Secretary

Full name

Full name

SCHEDULE 1 - DICTIONARY

Unless the context otherwise requires, the defined terms in column 1 below have the respective meanings in column 2:

<u>Column 1</u>	<u>Column 2</u>
Access Arrangement*	means the current 'access arrangement' (as defined in the Code*) approved in respect of the Network* under the Code*.
Access Contract*	has the meaning given to 'access contract' in the Code*.
Access Offer*	has the meaning given to 'access offer' in the Applications and Queuing Policy*.
Access Rights*	means all or part of the User*'s rights under this Contract* to obtain a Covered Service*.
Accounting Period*	means one calendar month.
Act*	means the <u>Electricity Industry Act 2004 (WA)</u> .
Affected Obligation*	has the meaning given to it in clause 22.1.
Affected Person*	has the meaning given to it in clause 22.1.
Affected Service*	has the meaning given to it in clause 7.3(a).
Affected Service Period*	has the meaning given to it in clause 7.3(a).
Application*	means an application made under the Applications and Queuing Policy*.
Applications and Queuing Policy*	means the 'applications and queuing policy' (as defined in the Code*) in the Access Arrangement*.
Assign*	includes assign or Novate*.
Assignment*	includes an assignment or Novation*.
Attachment Point*	has the meaning given to 'attachment point' in the Applications and Queuing Policy*.
Augmentation*	in relation to the Network*, means an increase in the capability of the Network* to provide Covered Services*, including by the development, construction, acquisition or commissioning of new Network Assets*.
Authorised Officer*	means the authorised officer of a party as specified in Schedule 6 to whom any Communication* may be given.
Authority*	means the Economic Regulation Authority established by the <u>Economic Regulation Authority Act 2003(WA)</u> .
Bare Transfer*	means an Assignment* under which the User* Assigns* the whole or a part of its access rights under this Contract* to an assignee, but under which there is no Novation*, with the result that the User*'s obligations under this Contract*, and all other terms of this Contract*, remain in full force and effect after the Assignment*, whether or not the assignee becomes bound to the User* or any other party to fulfil those obligations.
Bidirectional Point*	has the meaning given to 'bidirectional point' in the Applications and Queuing Policy*.
Bidirectional Service*	means a Covered Service* provided by Western Power* at a Connection Point* under which the User* may transfer electricity into and out of the Network* at the Connection Point*.

Build Pack*	means the 'Build Pack' developed under the <u>Electricity Industry Customer Transfer Code 2004 Communication Rules</u> (made under Part 5 of the Customer Transfer Code*) and/or the <u>Electricity Industry Metering Code 2004 Communication Rules</u> (made under Part 6 of the Metering Code*), as applicable in the circumstances.
Business Day*	means a day that is not a Saturday, Sunday or public holiday throughout Western Australia.
Capacity*	with regards to a Connection Point*, means the maximum rate at which the Network* can transfer electricity at the Connection Point* in accordance with Good Electricity Industry Practice*.
CEO Meeting*	has the meaning given to it in clause 29.2.
Charge*	for a Service* for an Accounting Period*, means the amount that is payable by the User* to Western Power* for the Service*, calculated by applying the Tariff* for the Service*, during the Accounting Period*.
Claim*	means any claim, demand, action or proceeding made or instituted against a Party*.
CMD*	means Contract Maximum Demand.
Code*	means the <u>Electricity Networks Access Code 2004</u> .
Code Objective*	has the meaning given to 'Code objective' in section 2.1 of the Code*.
Commencement Date*	means the date of execution of this Contract* by the last signing Party*, or the first date on which all of the Conditions Precedent* are satisfied or waived, whichever is later.
Communication*	means a notice, approval, consent or other communication given or made under this Contract*.
Conditions Precedent*	means the conditions precedent specified in Schedule 2.
Confidential Information*	means information which is confidential under clause 33.1.
Connect*	has the meaning given to 'connect' in the Code*.
Connection Assets*	has the meaning given to it 'connection assets' in the Code*.
Connection Contract*	means, at the option of Western Power*: <ul style="list-style-type: none"> (a) a contract containing provisions materially equivalent to those in this Contract*; or (b) some other agreement in writing to be bound by provisions materially equivalent to such terms and conditions of this Contract* satisfactory to Western Power*, but omitting clauses 3 to 9 of this Contract*.
Connection Point*	means a point on the Network* identified, or to be identified, as an Exit Point* or Entry Point* or Bidirectional Point* in the Contract Database*.
Connection Point Database*	means: <ul style="list-style-type: none"> (a) Part 1 of Schedule 3; or (b) another database or databases containing information relating to this Contract* and maintained by Western Power* as agreed between the Parties*, which for the avoidance of doubt can include the Metering Database* if the User* is not a Metering Code Participant* and this is agreed by the User* and Western Power*,

	as applicable.
Consume*	has the meaning given to 'consume' in the Code*.
Consumer*	has the meaning given to 'consumer' in the Code*.
Consumption*	for a Connection Point*, means the amount of electricity Consumed* at the Connection Point*, and is measured in Watt-hours.
Contract*	means this agreement between Western Power and the User*.
Contract Database*	means the Connection Point Database* or, if the Metering Database* is not included within the Connection Point Database* and clause 3.7(k)(ii) applies, then it means the Metering Database*.
Contracted Capacity*	for a Connection Point*, means the maximum rate at which the User* is permitted to transfer electricity to or from the Network* at the Connection Point*, being either: <ul style="list-style-type: none"> (a) the rate specified in the Connection Point Database* from time to time; or (b) if no rate is specified in the Connection Point Database*, the maximum rate of electricity permitted to be transferred under the Eligibility Criteria* for the Reference Service* for that Connection Point*; or (c) if no rate is specified in the Connection Point Database* or in the Eligibility Criteria* for the Reference Service* for that Connection Point*, the maximum rate of electricity permitted to be transferred through the Connection Assets* under the Technical Rules*, and is measured in Watts or Volt-Amps.
Contribution*	means any contribution made under the Contributions Policy*.
Contributions Policy*	means the contributions policy' (as defined in the Code*) contained in the Access Arrangement*.
Controller*	means, in respect of a Connection Point*, a person, including a Customer*, who owns, operates, controls or otherwise is responsible for the operation of the Facilities and Equipment* at the Connection Point*, and includes the Controller*'s Workers* and Visitors*.
Corporations Act*	means the <u>Corporations Act 2001</u> of the Commonwealth.
Covered Service*	has the meaning given to 'covered service' in the Code* and includes a Bidirectional Service*.
CPI*, or Consumer Price Index*,	means the Consumer* Price Index (all groups) for the Weighted Average of Eight Capital Cities published by the Australian Bureau of Statistics from time to time or, if the Consumer* Price Index (all groups) for the Weighted Average of Eight Capital Cities ceases to be published, such alternative index as Western Power* acting reasonably and in good faith may determine, and in all cases the CPI* figure is to be adjusted to correct for any effects of a change in the rate of GST*.
CPI-Adjusted*	has the meaning given to it in clause 1.3.
Curtail*	means curtailing or interrupting the whole or part of a Service*.
Curtailment*	includes a whole or partial curtailment or whole or partial interruption of a Service*.

Customer*	has the meaning given to 'customer' in the Act*.
Customer Transfer Code*	means the <u>Electricity Industry Customer Transfer Code 2004</u> , made under section 39(2a) of the Act* in respect of the matter referred to in section 39(2)(b) of the Act*, and includes all rules, policies or other subordinate documents developed under the Customer Transfer Code*.
De-energise*	in respect of a Connection Point*, means to operate, modify or remove switching or other equipment to prevent the transfer of electricity through the Connection Point*.
Default*	in relation to a Party*, has the meaning given to it in clause 27.1.
Direct Damage*	suffered by a person means loss or damage suffered by the person which is not Indirect Damage*.
Disconnect*	in respect of a Connection Point*, means physically detach Network Assets* from assets owned by another person at the Connection Point*.
Dispute*	means any dispute or difference concerning: <ul style="list-style-type: none"> (a) construction of; or (b) anything contained in or arising out of; or (c) rights, obligations, duties or liabilities of a Party* under, this Contract*.
DSOC*	means Declared Send Out Capacity.
Due Date*	means, for a Tax Invoice* issued under clause 8.1 or 8.2, the date 10 Business Days* after the Party* to whom it is addressed receives the Tax Invoice*.
Electronically*	in relation to a Communication*, means a communication of information by means of guided or unguided electromagnetic energy, or both, by way of packet transfer between and within computer networks using the TCP/IP or other widely accepted protocol for packet transfer.
Eligibility Criteria*	means, for a Reference Service*, the 'Eligibility Criteria' stipulated in Appendix E of the Access Arrangement* for that Reference Service*.
Emergency*	means any accident, emergency, potential danger or other unavoidable cause or extraordinary circumstance.
End Date*	for a Connection Point*, means the date specified as such in the Connection Point Database* for the Connection Point*.
Entry Point*	has the meaning given to 'entry point' in the Applications and Queuing Policy*.
Entry Service*	means a Covered Service* provided by Western Power* at a Connection Point* under which the User* may transfer electricity into the Network* at the Connection Point*.
Equivalent Reference Service*	has the meaning given to it in clause 7.1(c)(i).
Exit Point*	has the meaning given to 'exit point' in the Applications and Queuing Policy*.
Exit Service*	means a Covered Service* provided by Western Power* at a Connection Point* under which the User* may transfer electricity out of the Network* at the Connection Point*.
Extension Period*	has the meaning given to it in clause 2.2(a).

Facilities and Equipment*	has the meaning given to 'facilities and equipment' in the Code*.
First Party*	has the meaning given to it in clause 30.1.
Force Majeure*	<p>in respect of a Party*, means an event or circumstance beyond the Party*'s control, and which the Party*, acting as a Reasonable and Prudent Person*, is not able to prevent or overcome, including (where the foregoing conditions are satisfied):</p> <ul style="list-style-type: none"> (a) any act of God, lightning, earthquake, storm, fire, flood, subsidence, land slide, mud slide, wash-out, explosion or natural disaster; or (b) any insurrection, revolution or civil disorder, terrorism, act of public enemies, malicious damage, sabotage, vandalism, war (whether declared or undeclared) or a military operation, blockade or riot; or (c) any determination, award or order of any court or tribunal, or any regulatory authority or the award of any arbitrator arising after the Commencement Date*; or (d) any act or omission of government or any government or regulatory department, body, instrumentality, ministry, agency, fire brigade or any other authority other than a Party* (including restraint, expropriation, prohibition, intervention, direction or embargo); or (e) any inability or delay in obtaining any governmental, quasi-governmental or regulatory approval, consent, permit, licence or any other authority other than a Party*; or (f) any industrial disputes of any kind, strike, lock-out, ban, limitation or other industrial disturbances; or (g) any significant plant or equipment failure which could not have been avoided by the exercise of Good Electricity Industry Practice*; or (h) any act or omission of any person (other than a Party*) with Facilities and Equipment* connected to the Network* which prevents the Party*'s ability to perform its obligations under this Contract*; or (i) any application of any law of the Commonwealth, any Commonwealth authority, the State, any State authority or any local government; or (j) accidents, weather and acts of third parties (such as Generators* or Consumers*) that affect the quality, frequency and continuity of the supply of electricity.
Force Majeure Event*	means an event of Force Majeure*.
FM Period*	means the period of suspension of the Affected Obligation* pursuant to clause 22.1.
Generate*	has the meaning given to 'generate' in the Code*.
Generating Plant*	has the meaning given to 'generating plant' in the Code*.
Generation*	for a Connection Point*, means the amount of electricity Generated* at the Connection Point*, and is measured in Watt-hours.
Generator*	has the meaning given to 'generator in the Code*.
Good Electricity Industry	has the meaning given to 'good electricity industry practice' in the Code*.

Practice*	
GST*	means goods and services tax or similar value added tax levied or imposed in Australia on a taxable supply under the GST Act* or otherwise.
GST Act*	means the <u>A New Tax System (Goods and Services Tax) Act 1999</u> of the Commonwealth.
Guest Party*	has the meaning given to it in clause 15.1.
Host Party*	has the meaning given to it in clause 15.1.
Indemnifier*	means the Indemnifier* specified in the Parties* section of this Contract* (if any).
Indemnified Party*	has the meaning given to it in clause 19.6.
Indemnifying Party*	has the meaning given to it in clause 19.6.
Independent Market Operator*	is the Independent Market Operator established under the <u>Electricity Industry (Independent Market Operator) Regulations 2004</u> , exercising functions under the <u>Electricity Industry (Independent Market Operator) Regulations 2004</u> , the <u>Electricity Industry (Wholesale Electricity Market) Regulations 2004</u> and the Wholesale Electricity Market Rules made under the <u>Electricity Industry (Wholesale Electricity Market) Regulations 2004</u> .
Indirect Damage*	suffered by a person means any one or more of: <ul style="list-style-type: none"> (a) any consequential loss, consequential damage or special damages however caused or suffered by the person, including any: <ul style="list-style-type: none"> (i) loss of (or loss of anticipated) opportunity, use, production, revenue, income, profits, business and savings; or (ii) loss due to business interruption; or (iii) increased costs; or (iv) punitive or exemplary damages, <p>whether or not the consequential loss or damage or special damage was foreseeable; or</p> (b) in respect of contractual damages, damages which would fall within the second limb of the rule in <i>Hadley v Baxendale</i> [1854] 9 Exch. 341; or (c) any liability of the person to any other person, or any Claim* brought against the person by any other person, and the costs and expenses connected with the Claim*.
Information Provider*	in relation to Confidential Information*, means the party providing the information.
Information Recipient*	in relation to Confidential Information*, means the recipient of the information.
Insolvency Event*	in respect of a Party*, means any one or more of: <ul style="list-style-type: none"> (a) any suspension or cessation to payment of all or a class of its debts by an insolvent within the meaning of section 95A of the Corporations Act*; or (b) any execution or other process of any court or authority being

issued against or levied upon any material part of that Party*'s property or assets; or

- (c) a petition or application being presented (and not being withdrawn within 10 Business Days*) or an order being made or a resolution being passed for the winding up or dissolution without winding up of that Party* otherwise than for the purpose of reconstruction or amalgamation under a scheme; or
- (d) a receiver or a receiver and manager of the undertaking or any material part thereof of that Party* being appointed; or
- (e) that Party* proposing to enter into or enters into any arrangement, reconstruction or composition with or for the benefit of its creditors; or
- (f) an administrator of that Party* being appointed or the board of directors of that Party* passing a resolution to the effect that is specified in section 436A(1) of the Corporations Act*; or
- (g) that Party* failing (as defined by section 459F of the Corporations Act*) to comply with a statutory demand; or
- (h) a controller (as defined in the Corporations Act*) being appointed in respect of that Party* or the whole or a material part of that Party*'s undertaking, property or assets; or
- (i) application being made to a court for an order in respect of that Party* under part 2F.1 of the Corporations Act*; or
- (j) an event referred to in section 459C(2) of the Corporations Act* occurring in respect of that Party*; or
- (k) anything analogous or having a substantially similar effect to any of the events specified above occurring under the Law* of any applicable jurisdiction.

Insured Year*	means the period between and including 1 July in a Year* and 30 June in the following Year*.
Integrated Provider*	has the meaning given to 'integrated provider' in the Code*.
Latest Termination Date*	has the meaning given to it in clause 2.2(b).
Law*	means written laws and statutory instruments as defined in the Code*, orders given or made under a written law or statutory instrument as so defined or by a government agency or authority, Code of Practice and Australian Standards deemed applicable under a written law and rules of the general law including the common law and equity.
Maintain*, and Maintenance*	includes (as necessary and as applicable) calibrate, test, verify, renew, replace, repair and update.
Market Rules*	means the 'market rules' referred to in section 123(1) of the Act*, and includes all rules, policies or other subordinate documents developed under the Market Rules*.
Meter*	has the meaning given to 'meter' in the Metering Code*.
Metering Code*	means the code made under Section 39(1) of the Act* in respect of a matter referred to in Section 39(2)(a) of the Act*, and includes any service level agreement, metering data agency agreement, communications rules, metrology procedure, mandatory link criteria and registration process developed under that code.

Metering Code Participant*	has the meaning specified in the Metering Code*.
Metering Database*	means the metering database operated by Western Power* under the Metering Code*.
Metering Equipment*	means a Meter* or Meters* and associated equipment complying with the Metering Code* used to measure and record electricity as transferred to or from the Network* at a Connection Point*, which may include the measurement of the rate of transfer and the quantity and quality of the transferred electricity.
Network*	has the same meaning given to 'Western Power Network' in the Code*.
Network Assets*	in relation to the Network*, means the apparatus, equipment, plant and buildings used to provide or in connection with providing Covered Services* on the Network*, which assets are either Connection Assets* or Shared Assets*.
Network Business*	has the same meaning given to 'network business' in the Code*.
NMI*, or National Market Identifier*	means the unique identifier assigned to the Connection Point*.
Nominated Person*	has the meaning given to it in clause 9(a)(i).
Novate* and Novation*	<p>mean to substitute, with the consent of all Parties* to this Contract* and with effect on and from a date nominated as the effective date of the novation, an assignee for the User* as a party to this Contract*, with the result that:</p> <p>(a) all rights and obligations of the User* under this Contract* become rights and obligations of the assignee as if the assignee had been named in the Contract* in place of the User*; and</p> <p>(b) the User* is released from any obligations under this Contract* arising on or after the effective date of the novation, but remains liable for any default by it in the performance of those obligations prior to the effective date of the novation.</p>
Other Business*	has the meaning given to 'other business' in the Code*.
Party*	<p>means Western Power* or the User* .</p> <p>{Note: If there is an Indemnifier*, refer to clause 1.1(h)(iv)}</p>
Parties*	<p>means Western Power* and the User*.</p> <p>{Note: If there is an Indemnifier*, refer to clause 1.1(h)(iv)}</p>
Payment Error*	<p>means:</p> <p>(a) any underpayment or overpayment by a Party* of any amount in respect of a Tax Invoice*; or</p> <p>(b) any error in a Tax Invoice* (including the omission of amounts from that Tax Invoice*, the inclusion of incorrect amounts in that Tax Invoice*, calculation errors in the preparation of a Tax invoice* or a Tax Invoice* being prepared on the basis of data which is later established to have been inaccurate).</p>
Permanent Reconfiguration*	<p>means:</p> <p>(a) a permanent physical change (including a change to the zone</p>

	substation applicable to a Connection Point* and a change to the distance from the applicable zone substation to a Connection Point*); or
	(b) a change to the pricing zone applicable to a Connection Point*.
Possession*	includes custody, control, and an immediate right to possession, custody, or control.
Prescribed Rate*	means, at any point in time, the interest rate (expressed as a rate per cent per annum) equal to the aggregate of 3 annual percentage points and the interest rate (expressed as a rate per cent per annum) then published by the Reserve Bank of Australia as the large business variable indicator lending rate.
Price List*	means the 'price list' (as defined in the Code*) specified in the Access Arrangement*.
Pricing Year*	has the meaning given to 'pricing year' in the Code*.
Reasonable and Prudent Person*	means a person acting in good faith and, where applicable, in accordance with Good Electricity Industry Practice*.
Receipt Date*	has the meaning given to it in clause 29.1.
Reference Service*	means a 'reference service' (as defined in the Code*) specified in the Access Arrangement*.
Reference Service Point*	means a Connection Point* for which under this Contract* Western Power* provides, or is to provide, a Reference Service*.
Related Body Corporate*	has the meaning given to 'Related Body Corporate' in section 50 of the Corporations Act*.
Relocation*	has the meaning given to 'relocation' in the Transfer and Relocation Policy*.
Representatives' Meeting*	has the meaning given to it in clause 29.1.
Service*	means an Entry Service* or an Exit Service* or a Bidirectional Service* to be provided under this Contract* in respect of a Connection Point* as specified in the Contract Database*.
Shared Assets*	has the meaning given to 'shared assets' in the Code*.
Standing Charges*	has the meaning given to it in clause 7.3.
Start Date*	for a Connection Point*, means the date specified as such in the Connection Point Database* for the Connection Point*.
Supplementary Matters*	means the provisions incorporated in the Access Arrangement* under sections 5.27 and 5.28 of the Code*.
System Operator*	for the Network* means, unless the Technical Rules* provide otherwise, the person or persons who: <ul style="list-style-type: none"> (a) operate and control the system operation control centre; or (b) where there is no system operation control centre — is responsible for the control of the Network* through monitoring, switching and dispatch; or (c) where the system operation control centre and another party are both responsible for the control of the Network* through monitoring, switching and dispatch — perform the tasks described in either or

both of paragraphs (a) and (b).

Tariff*	for a Service*, means the tariff specified in clause 7.1 for that Service*.
Tax Invoice*	has the meaning given to 'Tax Invoice' in the GST Act*.
Technical Rules*	means the technical rules applying from time to time to the Network* under Chapter 12 of the Code*, as modified in accordance with the Code*, including any derogations agreed to by Western Power* in writing and specified in Part 3 of Schedule 3.
Term*	means, from time to time, the term of this Contract* which commences on the Commencement Date* and ends on the date which is then the Termination Date*.
Termination Date*	means, subject to clause 2.2, the date specified in Part 1 of Schedule 2.
Third Party Recipient*	means any person to whom the Information Recipient* discloses Confidential Information*, or allows Confidential Information* to be disclosed.
Transfer and Relocation Policy*	means the transfer and relocation policy (as defined in the Code*) contained in the Access Arrangement*.
Undisputed Portion*	for the purposes of a Tax Invoice* issued under 8.2(b) has the meaning given to it in clause 8.2(d) and, in all other cases, means the portion of the amount set out in a Tax Invoice* that this not in Dispute*.
User*	has the meaning given to it in the Code*, and for the purposes of this Contract* is the User* stipulated in the 'Parties section' of this Contract.
User's Default*	means an event of Default* by the User*.
User's Premises*	means the land on which the User*'s Facilities and Equipment* are located.
Visitors*	means the customers, invitees, licensees and visitors of a Party* or a Controller*, as the case requires.
Western Power*	means the Electricity Networks Corporation established under section 4(1)(b) of the <u>Electricity Corporations Act 2005 (WA)</u> .
Western Power's Default*	means an event of Default* by Western Power*.
Wilful Default*	means: <ol style="list-style-type: none"> 1. a deliberate and purposeful act or omission carried out with a calculated regard for the consequences of the act or omission; or 2. a reckless or wilful disregard for the consequences of the act or omission, <p>but does not include any error of judgment, mistake, act or omission, whether negligent or not, which is made in good faith.</p>
Workers*	means the directors, officers, servants, employees, agents and contractors of a Party* or a Controller*, as the case requires.
Works*	has the meaning given to it in the Contributions Policy*.
Year*	means calendar year.

Schedule 2 - Access Contract Information

Part 1 Term*

Termination Date*:	
--------------------	--

Part 2 Extension of Term*

{Note: Referred to in clause 2.2.}

Extension Period*:	
Latest Termination Date*:	

Part 3 Conditions Precedent*

{Note: Referred to in clause 2.3.}

For the benefit of the User*	1	[Description]
		[Date to be satisfied by]
For the benefit of Western Power*	1	[Description]
		[Date to be satisfied by]

Schedule 3 - Details of Connection Points

Part 1 Commercial Details

{Note:

- (a) If in accordance with clause 3.7(a) the Parties* agree to not have these details stored in this Part then state in each row in the right hand column below where the respective details are to be stored; and
- (b) Western Power will store these details in the Metering Database* where the User* is a Metering Code Participant*.)

1	Connection Point* 1 Title	
	Address of Premises	
	Name and contact details of Controller*	
	NMI*	
	Service*	
	Start Date*	
	End Date*	
	CMD* (kW/ kVA) (if applicable)	
	DSOC* (kW/ kVA) (if applicable)	
	Size of Generator* (if applicable)	
	Make and model of Generator* (if applicable)	
	Substation (if applicable)	
	Substation distance (if applicable)	

Part 2 Technical Details

{Note: referred to in clause 13(a)}

#	Connection Point*	Description of Facilities and Equipment*
1		

{Note: attach plans, drawings and other documentation as necessary to fulfil the requirements of clause 13(a).}

Part 3 Agreed exemptions from Technical Rules*

{Note: referred to in clause 13(a)(ii) }

#	Connection Point*	Technical Rules Reference	Description of Technical Rules* requirement	Description of Derogation
1				

Schedule 4 - Works and Contributions

{Note: Referred to in clause 26.}

1	[Connection Point* Title / NMI*]	
	[Contribution provisions]	
2	[Connection Point* Title / NMI*]	
	[Contribution provisions]	

Schedule 5 - Insurances

{Note: Referred to in clause 21.}

Part 1 User* insurances

- (a) The User* must effect and maintain, commencing from the Commencement Date* the following policies of insurance:
- (i) public and products liability of:
 - (A) public liability insurance for a limit of not less than \$50 million or the maximum liability of the User* under clause 19.5 (whichever is greater) in the aggregate of all claims made in an Insured Year*; and
 - (B) products liability insurance for a limit of not less than the maximum liability of the User* under clause 19.5 per claim and in the aggregate, refreshed annually;

covering the User*'s liability to Western Power* or any third party for death, bodily injury and loss or damage to property caused by any act, omission or negligence in relation to this Contract*;
 - (ii) when reasonably requested by Western Power*, workers' compensation insurance for all persons employed by the User* including employer's liability at common law, with a limit of cover in respect of any one occurrence at least equal to \$50 million;
 - (iii) when reasonably requested by Western Power*, motor vehicle third party property insurance for all loss or damage to property caused by or attributable to the use of a motor vehicle in the performance of the services or any work under the Contract*, for a limit of \$10 million per claim and unlimited in the aggregate of all claims made; and
 - (iv) contractors' plant and equipment insurance covering all loss or damage to the User*'s plant or equipment used in connection with this Contract* for its replacement value.
- (b) The policies of insurance under Schedule 5 Part 1 (a) must be with an insurer authorised under the Insurance Act 1973 (Cth) or the equivalent in the United States of America or the United Kingdom.

Part 2 Western Power* insurances

- (a) Western Power* must effect and maintain, commencing from the Commencement Date*, the following policies of insurance:
- (i) public and products liability of:
 - (A) public liability insurance for a limit of not less than the maximum liability of Western Power* under clause 19.5 per claim and unlimited in the aggregate of all claims made; and
 - (B) products liability insurance for a limit of not less than the maximum liability of Western Power* under clause 19.5 per claim and in the aggregate, refreshed annually;

covering Western Power*'s liability to the User* or any third party for death, bodily injury and loss or damage to property caused by any act, omission or negligence in relation to this Contract*;
 - (ii) workers' compensation insurance for all persons employed by Western Power* including employer's liability at common law, with a limit of cover in respect of any one occurrence at least equal to \$50 million;

- (iii) motor vehicle third party property insurance for all loss or damage to property caused by or attributable to the use of a motor vehicle in the performance of the services or any work under the Contract*, for a limit of \$10 million per claim and unlimited in the aggregate of all claims made; and
 - (iv) contractors' plant and equipment insurance covering all loss or damage to Western Power*'s plant or equipment used in connection with this Contract* for its replacement value.
- (b) The policies of insurance under Schedule 5 Part 2 (a) must be with an insurer authorised under the Insurance Act 1973 (Cth) or the equivalent in the United States of America or the United Kingdom.

Schedule 6 - Notices

{Note: Referred to in clause 35.}

Part 1 User*

Subject	Information
Address for service of notices/ place of business:	
Authorised Officers*:	
Email address:	
Facsimile number:	

Part 2 Western Power*

Subject	Information
Address for service of notices/ place of business:	
Authorised Officers*:	
Email address:	
Facsimile number:	

Schedule 7 - Electronic Communication*s Protocol

{Note: Referred to in clause 35.}

In this Schedule, unless the context otherwise requires, the defined terms in column 1 below have the respective meanings in column 2:

<u>Column 1</u>	<u>Column 2</u>
Addressee*	means the person to whose Email Address* an email* is sent.
Automated Response Message*	means an email* (" Reply Email* ") sent automatically upon receipt of an email* (" Original Email* "), where the Reply Email* is sent from an Addressee*'s Information System* to the Originator* of the Original Email*, acknowledging that the Original Email* has been received by the Addressee*'s Information System* and containing: <ol style="list-style-type: none"> (i) the name of the Originator* of the Original Email*; and (ii) at least the time, date and subject title of the Original Email*; and (iii) the name of the Addressee* of the Original Email*; and (iv) the date and time the Original Email* was received by the Addressee*'s Information System* (which in the absence of evidence to the contrary is taken to be the creation date of the Reply Email*).
Data*	includes the whole or part of a computer program within the meaning of the <u>Copyright Act 1968</u> of the Commonwealth.
email*	means a communication of Information* by means of guided or unguided electromagnetic energy, or both, by way of packet transfer between and within computer networks using the TCP/IP protocol.
Email Address*	means the address nominated in Schedule 6, being an address which is a combination of a personal identifier and a machine/network identifier, which are together capable of being resolved by computer networks transmitting email* using the TCP/IP protocol, so that email* is transmitted to the person providing that email address.
Information*	means information in the form of Data*, text, images or sound.
Information System*	means a system for generating, sending, receiving, storing or otherwise processing emails*.
Originator*	means the person who sends an email* to an Addressee*.
Place of Business*	means a place of business nominated under Schedule 6 and in relation to a government, a government authority or a non-profit body, includes a place where any operations or activities are carried out by that government, authority or body.
Purported Originator*	means the person on the face of the email* who appears to be, or purports to be the Originator*, including by purported compliance with clause 4 of this Schedule.

1. Application to invoicing

Where the Parties* have agreed under clause 8.1(d), the procedure set out in this Schedule* does not apply to invoicing under this Contract*, and the alternative agreed procedure will apply in its place.

2. Parties* to establish email* Addresses*

- (a) Western Power* and the User* must:
- (i) from time to time, nominate a Place of Business* and establish an Email Address* to be used for the Communications* under this Contract*; and
 - (ii) use reasonable endeavours to ensure that the Information System*, on which emails* addressed to the Email Address* are received, is operational:
 - (A) a 24 hours-a-day; and
 - (B) 7 days-a-week,
 to receive emails* and send Automated Response Messages* as required by this Contract*; and
 - (iii) as soon as practicable notify the other Party* of its Place of Business* and Email Address* and of any change in each of them; and
 - (iv) establish a mechanism to generate an Automated Response Message* for each email* (other than an Automated Response Message*) received at the Email Address*.

3. Requirement for Automated Response Message*

- (a) An email* is neither given nor received under this Contract* until the Originator* receives the Addressee*'s Automated Response Message* for the email*.
- (b) It is the Originator*'s responsibility for each attempted email* to verify that it receives an Automated Response Message*, and if it does not receive an Automated Response Message* arrange either for:
- (i) retransmission of the email*; or
 - (ii) communication of the Information* by an alternative medium (but this clause 3(b) does not limit the Addressee*'s responsibilities under clause 4 of this Schedule).
- (c) If the Originator* receives an Automated Response Message* for an email*, then (unless the Addressee* proves otherwise) for the purposes of this Contract* the:
- (i) Originator* has sent; and
 - (ii) Addressee* has received,
- the email* at the date and time shown in the Automated Response Message*.
- (d) It is the Addressee*'s responsibility for each email* for which the Addressee*'s Information System* generates an Automated Response Message* to:
- (i) read the email* and the Information* it contains, and if applicable communicate it to the appropriate Worker* within the Addressee*'s organisation; and
 - (ii) if necessary, notify the Originator* of any difficulty in opening, reading, de-compressing or otherwise accessing (in a form reasonably readable) any Information* contained in the email*; and
 - (iii) if it appears to the Addressee* that the Addressee* was not the intended or correct recipient of the Information* in the email*, communicate this fact to the Originator*.

4. Location

Unless otherwise agreed between the Originator* and the Addressee* of an email*, the email* and the Information* it contains is deemed to have been sent from the Originator*'s Place of Business* and received at the Addressee*'s Place of Business*.

5. Attribution of emails* and reliance

Except to the extent that:

(i) the Purported Originator* of an email* and the Addressee* of the email* agree otherwise; or

(ii) the Purported Originator* of an email* proves otherwise,

the Addressee* of an email* in respect of which an Automated Response Message* has been given may assume for all purposes under this Contract* that the:

(iii) Purported Originator* of the email* is the Originator* of the email*; and

(iv) email* was sent by, or with the knowledge and express authority of, the Purported Originator*.

6. Signatures

For the purposes of this Contract*, an email* must identify the Originator*.

7. Information* format

An Originator* must use reasonable endeavours, in selecting the data format for Information* contained in an email*, to adopt a consistent format over time to facilitate any automated processing of the Information* by the Addressee*.

Schedule 8 - Form of Guarantee

Date [###]

Parties

1. [### ACN ### a company registered in ### of ###] (“**Guarantor***”); and
2. **Electricity Networks Corporation ABN 18 540 492 861**, a statutory body corporate established by paragraph 4(1)(b) of the *Electricity Corporations Act 2005 (WA)* of 363 Wellington Street, Perth, Western Australia (“**Western Power***”).

Recitals

- A. Western Power* may in its discretion provide Services* to [###] (“**User***”) under an Access Contract* at the request of each of the User* and the Guarantor*.
- B. The Guarantor* wishes to execute this Guarantee to secure payment of all amounts payable under the Access Contract* to Western Power*.
- C. Words appearing with an asterisk(*) in this Guarantee are defined terms and have the respective meanings detailed in this Guarantee.

Operative Provisions

(e) Guarantee

The Guarantor* unconditionally and irrevocably Guarantees as a continuing security to Western Power* payment by the User* of all moneys and liabilities due and/or payable from or by the User* to Western Power* under or in connection with the contract dated [###] (“**Access Contract***”) created between the User* and Western Power* (“**Secured Moneys***”), including moneys and liabilities incurred or arising:

- (i) (**liability**): at any present or future time, whether actually or contingently;
- (ii) (**default**): as a result of any breach of or default under the Access Contract*; and/or
- (iii) (**account**): by way of principal, interest, cost, charge, expense, disbursement, fee, tax, stamp or other duty, indemnity, damages or monetary judicial order.

(f) Secured Moneys*

(i) Demand payment

The Guarantor* must pay to Western Power*, upon demand by Western Power* at any present or future time, the amount of the Secured Moneys* due from and payable by the User* to Western Power* at that time under, and in the manner and currency specified in, the Access Contract*.

(ii) Costs

The Guarantor* must at any present or future time indemnify Western Power* upon demand for any cost, charge, expense, disbursement, fee, tax or stamp or other duty incurred by Western Power* at any time in connection with the Access Contract*, this Guarantee* or the Secured Moneys* relating to:

- (A) **(security agreements)**: preparation, negotiation, execution or performance, or any termination, amendment, consent, claim, demand or waiver;
- (B) **(security rights)**: any exercise or enforcement of any right or power conferred on Western Power*;
- (C) **(credit increases)**: any extension of further, additional or increased credit or financial accommodation by Western Power*, or agreement by Western Power* to increase the amount secured; and/or
- (D) **(payments)**: the receipt or payment of any moneys, including moneys paid by Western Power* by way of reimbursement to any third party.

(iii) Set-Off exclusion

The Guarantor* must make any payment required under this Guarantee without set-off or other deduction, except for the deduction or withholding of any tax compelled by law.

(g) Indemnity

The Guarantor* must as a separate and additional liability of the Guarantor* as a principal debtor, and not as a surety, indemnify Western Power* against, and pay to Western Power* upon demand by Western Power* an amount equal to, all Secured Moneys* that are or may become invalid, unenforceable, illegal or irrecoverable for any reason or under any circumstances as a liability to Western Power* by the Guarantor* as a surety, despite any other provision of this Guarantee.

(h) Guarantee protection

This Guarantee, and the liability of the Guarantor* under this Guarantee, is not affected at any time by:

- (i) **(waiver)**: the granting to any person by Western Power of any waiver;
- (ii) **(agreements)**: any agreement, deed or document created with, or action or omission performed, representation made or non-disclosure of any fact or information by, Western Power* or any person;
- (iii) **(Secured Moneys*)**: any increase or variation in the amount of the Secured Moneys* occurring for any reason;
- (iv) **(document amendment)**: any amendment to or transfer, release or termination of any agreement, deed or document or any right, power or liability of any person under any agreement, whether for or without consideration;
- (v) **(enforcement decisions)**: any exercise or enforcement, or any failure or invalidity in, the exercise or enforcement by Western Power* of any right or power conferred on Western Power* under any agreement, deed or document or by law;
- (vi) **(invalidity)**: any actual or potential invalidity, unenforceability, illegality or irrecoverability of any agreement, deed or document or consent or any payment made or due to Western Power* under any agreement for any reason;
- (vii) **(incapacity)**: any incapacity or absence of power or authorisation of, or other fact relating to, any person in connection with the execution of any agreement, deed or document or otherwise, including any change in the constitution or membership of any person; or

(viii) **(residual)**: any other breach, default, waiver or fact which, except for this provision, might legally operate:

(A) to release or discharge or have any prejudicial effect on; or

(B) in any manner to release or discharge the Guarantor* from performance of, or limit or provide a defence to any legal action to enforce,

this Guarantee, or any liability of the Guarantor* under or in connection with this Guarantee.

(i) Termination

The Guarantor* is not entitled to terminate or limit this Guarantee, or any liability of the Guarantor* under this Guarantee, until the Secured Moneys* have been paid in full.

(j) Governing Law

This Guarantee is governed by and construed under the law of the State of Western Australia.

(k) General

(i) Continuing Security

This Guarantee is a continuing security and is not wholly or partially discharged by the payment at any time of any Secured Moneys*, settlement of account or other fact and applies to the balance of the Secured Moneys* at any time until a final termination of this Guarantee by Western Power*.

(ii) Further Assurance

The Guarantor* must upon request by Western Power* at any time execute any document and perform any action necessary to give full effect to this Guarantee, whether prior or subsequent to performance of this Guarantee.

(iii) Waivers

Any failure or delay by Western Power* to exercise any right or power under this Guarantee does not operate as a waiver and the single or partial exercise of any right or power by Western Power* does not preclude any other or further exercise of that or any other right or power by Western Power*.

Appendix B – Applications and Queuing Policy

September 2011



Proposed changes to the Applications and Queuing Policy

Applications and Queuing Policy

ELECTRICITY NETWORKS CORPORATION ("WESTERN POWER")

ABN 18 540 492 861

{Outline: This *applications and queuing policy* is included in Western Power's *access arrangement* in accordance with section 5.1 of the *Code*.}

{Note: This policy has been prepared in accordance with the requirements of the Electricity Networks Access Code 2004, including proposed Electricity Networks Access Code Amendments (No 2) 2008}

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Part A - Common Provisions

1. Operation and objective

1.1 Operation of this *applications and queuing policy*

This *applications and queuing policy* operates in the manner shown in Figure 1 (next page).

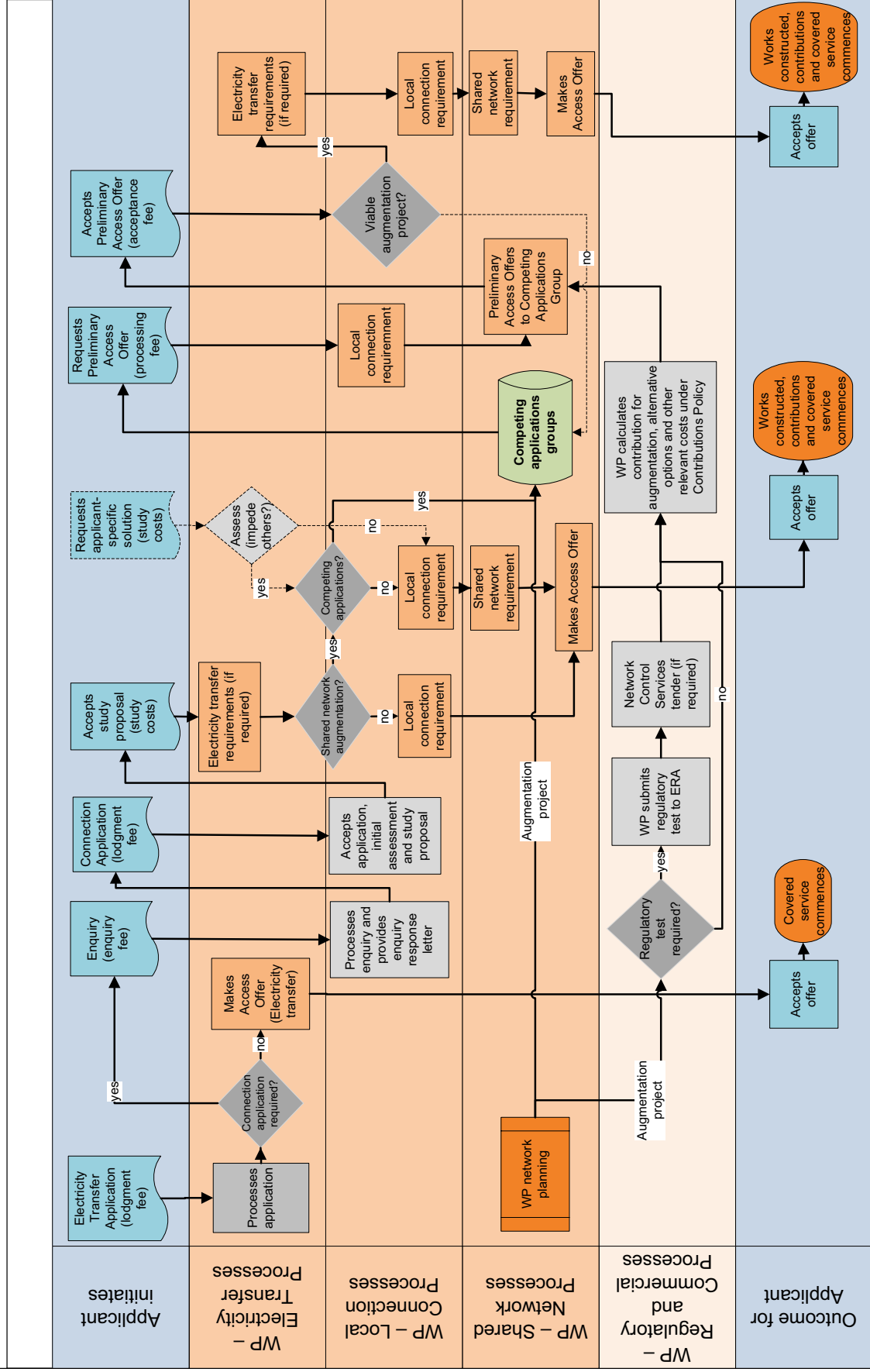
1.2 Objectives

The objectives of this *applications and queuing policy* are:

- (a) To provide an equitable, transparent and efficient process for assessing the suitability of plant and equipment to connect to Western Power's *network* and to make *access offers* based on that assessment; and
- (b) To undertake assessments and to provide shared *network access offers* that facilitate access by *generators* and loads to the WA Electricity Market (WEM) on an economically efficient and non-discriminatory basis that is consistent with WEM requirements, and uses a process that is equitable, transparent and efficient; and
- (c) Where feasible and cost-effective, to facilitate joint solutions for *connection applications*.

Western Power may from time to time determine that it can provide *shared asset works* that can provide *access* to multiple *applicants*.

Figure 1: Access, Connection and Transfer Applications Policy – Process Overview



2. Introduction

2.1 Definitions

In this applications and queuing policy, unless the contrary intention is apparent:

“access arrangement” means the current *access arrangement* approved in respect of the *network* under the *Code*.

“access contract” means an agreement between Western Power and another person for that person to have access to *covered services*.

{Note: Under the *Code* “access agreement” has the meaning given to it in part 8 of the *Act*, and under section 13.4 (d) of the *Code* includes a “*deemed access contract*”. The definition of “access agreement” under the *Act* is “an agreement under the *Code* between a network service provider and another person (a “network user”) for that person to have access to services”.

“access contract number” means the unique identifier given to each *access contract* by Western Power.

“access dispute” has the meaning given to it in the *Code*.

{“access dispute” means a dispute, in connection with an *access application*, between the applicant and the service provider, including a dispute in relation to any one or more of the following (and the paragraphs of this definition do not limit each other):

- (a) whether the applicant or the service provider has complied with, or the manner in which the applicant or the service provider has purported to comply with, the applications and queuing policy; and
- (b) the terms and conditions, including service standards, on which the applicant should be permitted to acquire covered services from the service provider; and
- (c) whether work is required work and the terms and conditions applying, or proposed to apply, to any such work; and
- (ca) anything connected with or arising out of a proposed contribution; and
- (cb) a matter heard under section 15.7; and
- (cc) anything connected with or arising out of Appendix 8; and
- (cd) anything connected with or arising out of Appendix 9; and
- (d) whether the service provider should grant the applicant an exemption to the technical rules under section 12.34; and
- (e) the arrangements which will apply in respect of a supplementary matter connected with the *access application*”.

“access offer” means a form of contract developed under this *applications and queuing policy* which has been *signed* by Western Power and is in such a form that it can, without anything else being required, become an *access contract* when *signed* by an *applicant*.

“Act” means the *Electricity Industry Act 2004*.

“accumulation meter” has the meaning given to it in the *Metering Code*.

{Note: Under the *Metering Code* “accumulation meter” means “a meter that measures accumulated energy data and records it in one or more accumulated energy registers, and includes a meter with interval energy data storage capability which is deemed to be an accumulation meter under clause 3.2(2)”.

“**applicant**” means a person (who may be a *user* or a *customer*) who has lodged, or intends to lodge, an *application*.

“**applicant-specific solution**” means a method of satisfying a *connection application* by either:

- (a) *works* funded solely by the *applicant* whether by direct funding or through payment of tariffs and/or *contributions* by that *applicant* and not involving another *applicant*; or
- (b) an *operational solution* involving only that *applicant*; or
- (c) a combination of *works* funded solely by the *applicant* and an *operational solution*.

“**application**” means an *electricity transfer application* or a *connection application*.

“**application form**” with regards to an *application*, means the applicable application form (as is specified as being applicable to the *applicant’s application* in this *applications and queuing policy* or on Western Power’s website) provided by Western Power on its website, or otherwise published by Western Power, for that *application*.

“**attachment point**” means a point on the *network* at which *network assets* are connected to assets owned by another person.

“**augment**” and “**augmentation**” have the meaning given to ‘work’ in the *Code*.

{Note: Under the *Code* “work” means “any activity or undertaking in connection with the covered network, whether of a capital or non-capital nature, including the planning, designing, development, approval, construction, acquisition and commissioning of new facilities and new network assets and the procurement or provision of any good or service”.

“**bidirectional point**” means a single, indivisible (except as allowed under this *applications and queuing policy*) point, that for purposes under the *access arrangement* involving the transfer of electricity, is deemed to consist of a single *attachment point*, connected or to be connected to a *user’s connection point*, with a single *meter* (regardless of the actual configuration of *network assets* making up the *bidirectional point*), at which electricity is to be transferred into and out of the *network*.

“**bidirectional service**” means a *covered service* provided by Western Power at a *connection point* under which the *user* may transfer electricity into and out of the *network* at the *connection point*.

“**capacity**”, with regards to a part of the *network* (including a *connection point*), refers to the maximum rate at which electricity can be transported through that part of the *network* in accordance with *good electricity industry practice*.

“contributions policy” means the *contributions policy* in the *access arrangement*.

“charge”, for a *covered service* relating to the transfer of electricity, means the amount that is payable by a *user* to Western Power for the *covered service* under an *access contract*.

“Code” means the *Electricity Networks Access Code 2004* (as amended).

“competing”, in relation to two or more *connection applications*, means that the provision of the *covered service* sought in one *connection application* may impede Western Power’s ability to provide the *covered services* that are sought in the other *connection applications*.

“competing applications group” means a number of *applications* that are competing for access to limited *network capacity* and have been grouped together by Western Power.

“complete”, in relation to an *application* or *notice*, means where the *applicant* or *controller* (as applicable) has:

- (a) used reasonable endeavours to accurately and completely address each item in the applicable *application form* (including by the provision of any supporting information required by the *application form*); and
- (b) with respect to an *electricity transfer application*, provided all of the information required under clauses 3.5 and 3.6 for the *application*; and
- (c) with respect to a *connection application*, provided all of the information required under clauses 3.5 and 3.7 for the *application*,

to Western Power’s satisfaction, acting as a reasonable and prudent person.

“completion date” means, in relation to *works*, the date when the *works* are complete except for minor omissions and minor defects which will not prevent the use of the *works*.

“confidential information” means

- (d) in the case of information disclosed by an *applicant* or a *disclosing person* to Western Power in or in connection with an *application*, information which the *disclosing person* (acting as a reasonable and prudent person) has identified as being commercially sensitive or confidential; and
- (e) in the case of information disclosed by Western Power to an *applicant* or a *disclosing person* in connection with an *application*, information which Western Power (acting as a reasonable and prudent person) has identified as being commercially sensitive or confidential.

“connection application” means an *application* lodged with Western Power under this *applications and queuing policy* that has the potential to require a modification to the *network*, including an *application* to:

- (a) connect facilities and equipment at a new connection point; or
- (b) increase consumption or generation at an existing *connection point*; or
- (c) materially modify *facilities and equipment connected* at an existing *connection point*; or
- (d) augment the *network* for any other reason,

{Note: this might be, for example, to service a subdivision.}

and includes any additional information provided by the *applicant* in regard to the *application*.

“connection point” means:

- (a) an *exit point*; or
- (b) an *entry point*; or
- (c) a bidirectional point;

identified or to be identified as such in an *access contract*.

“connection asset” has the meaning given to it in the *Code*.

{Note: Under the *Code* "connection assets" for a *connection point*, means "all of the *network assets* that are used only in order to provide *covered services* at the *connection point*".}

“consume” has the meaning given to it in the *Code*.

{Note: Under the *Code* "consume" means "to consume electricity".}

“consumption”, for a *connection point*, means the amount of electricity *consumed* at the *connection point*, and is measured in Watt-hours.

“contestable”, with respect to an *exit point*, means an *exit point* that Western Power has determined is contestable under clause 13.

“contestability threshold” in relation to an *exit point*, means the amount of electricity consumed or the estimated amount of electricity that will be consumed at the *exit point*, by a *customer* who is a member of a class of customers declared to be 'prescribed customers' as defined in section 54 of the *Electricity Corporations Act 2005* by an order made under and in accordance with section 54(4) of that Act, within the period specified in the declaration.

“contract for services” has the meaning given to it in the *Code*.

{Note: Under the Code “contract for services” means “an agreement between a service provider and another person for the person to have access to services, and includes an access contract”.]

“contracted capacity”, for a *connection point*, means the maximum rate at which a *user* is permitted to transfer electricity to or from the *network* at the *connection point*, being either:

- (a) the rate specified in the *user’s access contract* from time to time; or
- (b) if no rate is specified in the *user’s access contract*, the maximum rate of electricity permitted to be transferred under the *reference service* eligibility criteria for the *reference service* for that *connection point* in the *user’s electricity transfer access contract*; or
- (c) if no rate is specified in the *user’s access contract* or in the *reference service* eligibility criteria, the maximum rate of electricity permitted to be transferred through the *connection assets* under the *technical rules*,

as applicable, and is measured in Watts or Volt-Amps.

“contribution” means any contribution applicable under the *contributions policy*.

“controller” means a person, which includes a *customer*, who owns, operates or controls (or will own, operate or control) *facilities* and *equipment* at a *connection point*, and who is specified by an *applicant* in an *application* in respect of the *connection point*.

“covered service” has the same meaning given to it in the Code but also includes a bidirectional service.

{Note: Under the Code “covered service” means “a service provided by means of a *covered network*, including:

- (a) a *connection service*; or
 - (b) an *entry service* or *exit service*; or
 - (c) a *network use of system service*; or
 - (d) a *common service*; or
 - (e) a *service* ancillary to a *service* listed in paragraph (a) to (d) above,
- but does not include an *excluded service*”.]

“customer” has the meaning given to it in the Act.

“Customer Transfer Code” means the *Electricity Industry Customer Transfer Code 2004*, made under section 39(2)(a) of the Act in respect of the matter referred to in section 39(2)(b) of the Act, and includes all rules, policies or other subordinate documents developed under the *Customer Transfer Code*.

“customer transfer request” has the meaning given to it in the *Customer Transfer Code*.

{Note: Under the *Customer Transfer Code* “customer transfer request” means “a request by a retailer to a network operator made using the form published under clause 4.1 to transfer a contestable customer at an exit point in the network operator’s network from one retailer to another”.

“de-energise” in respect of a *connection point*, means to operate, modify or remove switching or other equipment to prevent the transfer of electricity through the *connection point*.

“disclosing person”, in relation to an *application*, means a person who discloses *confidential information* to Western Power in, or in connection with, an *application*.

“electricity transfer application” means an application lodged with Western Power under this *applications and queuing policy* seeking to obtain or modify an *entry service* or an *exit service* or a *bidirectional service*, and includes any additional information provided by the *applicant* in regard to the application.

“electricity transfer access contract” means a type of *access contract* that provides the *user* with an *entry service* or *exit service* or *bidirectional service*, or any combination of the three, at a *connection point* or *connection points*.

“enquiry” means an enquiry by an *applicant* under clause 18.

“entry point” means a single, indivisible (except as allowed under this *applications and queuing policy*) point, that for purposes under the *access arrangement* involving the transfer of electricity, is deemed to consist of a single *attachment point*, *connected* or to be *connected* to a *user’s connection point*, with a single *meter* (regardless of the actual configuration of *network assets* making up the *entry point*), at which electricity is more likely to be transferred into the *network* than out of the *network*.

“entry service” means a *covered service* provided by Western Power at a *connection point* under which the *user* may transfer electricity into the *network* at the *connection point*.

“exit point” means a single, indivisible (except as allowed under this *applications and queuing policy*) point, that for purposes under the *access arrangement* involving the transfer of electricity, is deemed to consist of a single *attachment point*, *connected* or to be *connected* to a *user’s connection point*, with a single *meter* (regardless of the actual configuration of *network assets* making up the *entry point*), at which electricity is more likely to be transferred out of the *network* than into the *network*.

“exit service” means a *covered service* provided by Western Power at a *connection point* under which the *user* may transfer electricity out of the *network* at the *connection point*.

“generate” has the meaning given to it in the *Code*.

{Note: Under the *Code* “generate” means “to produce electricity”.

“generating plant” has the meaning given to it in the *Code*.

“generation”, for a *connection point*, means the amount of electricity *generated* at the *connection point*, and is measured in kilowatts.

“generator” has the meaning given to it in the *Code*.

{Note: Under the *Code* “generator” means a person who generates electricity”}.

“incoming retailer” has the meaning given to it in the *Customer Transfer Code*.

{Note: Under the *Customer Transfer Code* “incoming retailer”, in relation to a *customer transfer request* or *transfer*, means “the *retailer* that will supply a *contestable customer* after the *transfer time*”}.

“initial response” means the initial response of Western Power to an *applicant* under clause 19.1 in relation to a *connection application*.

“law” means “written law” and “statutory instruments” as defined in the *Code*, orders given or made under a written law or statutory instrument as so defined or by a government agency or authority, Codes of Practice and Australian Standards deemed applicable under a written law and rules of the general law including the common law and equity.

“lodgement fee” means the fee specified for an *enquiry* or an *application* in the *price list*.

“loss factor” has the meaning given to it in the *Market Rules*.

{Note: Under the *Market Rules* “loss factor” means “a factor defining the annual average marginal network loss between any given node and the Reference Node where the Loss Factor at the Reference Node is 1, determined in accordance with clause 2.27.2”}.

“market participant” means a person who, at a time after “market commencement” (as defined in the *Market Rules*) is a “market participant” (as defined in the *Market Rules*).

“Market Rules” means the rules made pursuant to the *Electricity Industry (Wholesale Electricity Market) Regulations 2004*.

“meter” has the meaning given to it in the *Metering Code*.

{Note: Under the *Metering Code* “meter” means “a device complying with this Code which measures and records electricity production or consumption but under clause 3.24 does not include a prepayment meter”}.

“Metering Code” means the code made under Section 39(1) of the *Act* in respect of a matter referred to in section 39(2)(a) of the *Act*, and includes any service level agreement, metering data agency agreement, communications rules, metrology procedure, mandatory link criteria and registration process developed under that code.

“metering database” means the “metering database” (as defined in the *Metering Code*) operated by Western Power under the *Metering Code*.

“metering equipment” means a *meter* or *meters* and associated equipment complying with the *Metering Code* used to measure and record electricity transferred to or from the *network* at a *connection point*, which may include the measurement of the rate of transfer and the quantity and quality of the transferred electricity.

“network” has the meaning given to “Western Power Network” in the *Code*.

{Note: Under the *Code* "Western Power Network" means "the *covered network* that is covered under section 3.1". The “Western Power Network” is the portion of the SWIN that is owned by the Electricity Networks Corporation.}

“network assets” has the meaning given to it in the *Code*.

{Note: Under the *Code* "network assets", in relation to a *network* means "the apparatus, equipment, plant and buildings used to provide or in connection with providing *covered services* on the *network*, which assets are either *connection assets* or *shared assets*".}

“Network Control Services” has the meaning given to Network Control Service in the *Market Rules*.

“NMI” means National Market Identifier, which is the unique identifier assigned by Western Power to each *connection point*.

“operational solution” means a method of satisfying a *connection application* that does not rely primarily on construction of new *network assets* or *augmentation* of existing *network assets*.

{Note: Examples of *operational solutions* could include *generator* runback schemes, load inter-trips, and off grid voltage support}

“preliminary access offer” mean an indicative and non-binding *access offer* that is made to an applicant within a *competing applications group*.

“premise” has the meaning given to it in the *Energy Operators (Powers) Act 1979*.

“previous retailer” has the meaning given to it in the *Customer Transfer Code*.

{Note: Under the *Customer Transfer Code* “previous retailer”, in relation to a transfer, “means the retailer that supplied the contestable customer before the transfer time”.}

“price list” means the *price list* (as defined in the *Code*) in the *access arrangement*.

“priority date” has the meaning given to it in clause 3.2.

“project” means a project identified in a tender notice.

“re-energise”, in respect of a previously *de-energised connection point*, means to operate switching or other equipment so as to permit the transfer of electricity through the *connection point*.

“reference service” means a *covered service* designated in the *access arrangement* as a *reference service* (as defined by the *Code*).

"relocation" has the meaning given to it in the *Code*.

"reserve capacity auction" has the meaning given to it in the *Market Rules*.

{Note: Under the *Market Rules* "Reserve Capacity Auction" means "the process for determining the Reserve Capacity Price for a Reserve Capacity Cycle and the quantity of Reserve Capacity scheduled by the IMO for each Market Participant under clause 4.19".}

"retailer" has the meaning given to it in the *Act*.

"revenue meter" has the meaning given to it in the *Metering Code*.

{Note: Under the *Metering Code* "revenue meter" means "a meter that is used under the *Metering Code* as the source of energy data, unless the *Metering Code* permits an alternative source of energy data to be used".}

"services end date" means, in respect of a *connection point*, the date on which Western Power ends the provision of *covered services* to the *user* in respect of that *connection point*.

"services start date" means, in respect of a *connection point*, the date on which Western Power commences providing *covered services* to the *user* in respect of that *connection point*.

"shared assets" has the meaning given to it in the *Code*.

{Note: Under the *Code* "shared assets" mean "those *network assets* which are not *connection assets*".}

"signed" by Western Power or the *applicant* means duly signed or otherwise executed by or on behalf of all persons who comprise Western Power or the *applicant*, as the case may be.

"spare capacity" means the *capacity*, from time to time, of the *network*, as configured at the time of an *application*, to provide the *covered services* sought in the *application*, having regard to Western Power's contractual obligations in respect of the *network*.

"standard access contract", with respect to a *reference service*, means the *access contract* applicable to that *reference service* under the *access arrangement*.

"standing data" has the meaning given to it in the *Metering Code*.

"technical rules" means the *technical rules* (as defined in the *Code*) applying from time to time to the *network* under Chapter 12 of the *Code*, as modified in accordance with the *Code*.

"transition application" means an *application* which:

- (a) seeks modifications to an *access contract* or any other *contract for services*; and

- (b) the modifications, if implemented, would not materially impede Western Power's ability to provide a *covered service* sought in one or more other *applications* compared with what the position would be if the modifications were not implemented.

“unmetered connection”, with respect to a *connection point*, has the same meaning as the term “type 7 connection point” when that term is used in the *Metering Code*.

“user” has the meaning given to it in the *Code*.

{Note: Under the *Code* "user" means "a person, including a *generator* or a *consumer*, who is a party to an [*sic.*] contract for services with a *service provider*, and under section 13.4(e) includes another *business* as a party to a *deemed access contract*".}

“verifiable consent” has the meaning given to it in the *Customer Transfer Code*.

{Note: Under the *Customer Transfer Code* “*verifiable consent*”, in relation to a request for historical consumption data or a *customer transfer request*, means “consent that is given by a contestable customer—

- (a) expressly; and
- (b) in writing; and
- (c) after the retailer obtaining the consent has in plain language appropriate to the contestable customer disclosed all matters materially relevant to the giving of the consent, including each specific purpose for which the consent will be used; and
- (d) by a person whom a retailer (acting reasonably) would consider competent to give consent on the contestable customer’s behalf; and
- (e) which has not expired under clause 1.5”.

“works” has the meaning given to it in the *contributions policy*.

{Note: Under the Contributions Policy “works” means “headworks and all works required to be undertaken to provide an applicant with the covered services sought by the applicant in a *connection application*, including works associated with:

- (a) augmentation of connection assets;
- (b) augmentation of shared assets;
- (c) alternative options; and
- (d) other non-capital works”.

2.2 Application of this *applications and queuing policy* to *connection applications* and *electricity transfer applications*

- (a) Part A and Part B but not Part C of this *applications and queuing policy* apply to an *electricity transfer application*.
- (b) Part A and Part C but not Part B of this *applications and queuing policy* apply to a *connection application*.

2.3 Interpretation

- (a) Unless:
 - (i) the contrary intention is apparent; or
 - (ii) the term has been redefined in clause 2,

a term with a defined meaning in the *Code* has the same meaning in this *applications and queuing policy*.
- (b) Unless the contrary intention is apparent:
 - (i) a rule of interpretation in the *Code*; and
 - (ii) the *Interpretation Act 1984*,apply to the interpretation of this *applications and queuing policy*.

2.4 Prior applications

- (a) Unused
- (b) To the extent permitted by *law*, an *application* made prior to the date of commencement of this applications and queuing policy shall be deemed to have been made under this *applications and queuing policy*, with a *priority date* being the date it was lodged under the previous version of the applications and queuing policy but if the *application* was taken to be amended under that version of the policy such that its priority was determined by the time of amendment then the *priority date* is that time of amendment .
- (c) To the extent permitted by *law*, for the purposes of timeframes within this *applications and queuing policy* only, an *application* made prior to the current *access arrangement period* shall be deemed to have been made on the day the current *access arrangement period* commences.

2.5 Supplementary matters apply

Western Power and the *applicant* must, in accordance with section 5.28 of the *Code*, comply with any provisions of the *supplementary matters* relating to this *applications and queuing policy*.

2.6 Exercising an option not affected

An option granted to a *user* as part of the terms of an *access contract* to extend the duration of the *access contract* is not an *application* and is not subject to this *applications and queuing policy* if it is exercised in accordance with its terms.

3. **The application**

3.1 **Applications to be made in good faith**

Western Power and an *applicant* must act in good faith with regard to each other in relation to an *application*.

3.2 **Commencing the *application* process**

- (a) The *application* process is commenced by the *applicant* submitting an *enquiry* to Western Power.
- (b) Following Western Power's response to the *enquiry*, the *applicant* must submit:
 - (i) an *application* to Western Power on the appropriate *application form*; or
 - (ii) where permitted under this *applications and queuing policy*, notice to Western Power,

that is *complete*.

- (c) Western Power will stamp *complete applications* with the date on which the *applications* are lodged and *complete*, and this date will be the *priority date*. The *priority date* may change in accordance with the provisions of clause 24A.

3.3 **Applicant to be market participant**

An *applicant* who seeks an *exit service* or an *entry service* or a *bidirectional service*:

- (a) must submit an electricity transfer application; and
- (b) must be, or intend to be (providing reasonable proof of intent), a *market participant* at the time the electricity transfer is to take place.

3.4 **Related electricity transfer application and connection application**

Where

- (a) a *retailer* seeks to obtain or modify an *exit service* or an *entry service* or a *bidirectional service* on behalf of a *customer*; or
- (b) a *generator* seeks to obtain or modify an *entry service* or a *bidirectional service* on behalf of a *controller* who is not the *generator*,

and both a *connection application* and an *electricity transfer application* will be required under this *applications and queuing policy*, then the *applications* may:

- (c) be submitted concurrently by the *retailer* or *generator*; or

- (d) be submitted at different times by the *retailer* or *generator* and the *customer* or *controller* as applicable, in which case both parties are *applicants*.

3.5 Information required with all applications

All *applicants* must provide the following information to Western Power in respect of an *application* at the time of submitting the *application*:

- (a) details of the *applicant*, including:
 - (i) the full name and address of the *applicant*; and
 - (ii) whether the *applicant* is acting as agent for any person in making the *application*, and if so, details of the *applicant's* principals; and
 - (iii) whether the *applicant* is an existing *user*, and if so, details of the *applicant's* existing *access contract*,and
- (b) any conditions precedent that the *applicant* seeks to include in the resulting *access offer*; and
- (c) details of the *connection point*, including:
 - (i) the location or *NMI* of the *connection point*, as applicable; and
 - (ii) the forecast annual *consumption* of electricity, if applicable; and
 - (iii) the forecast annual *generation* of electricity, if applicable,and
- (d) such information concerning the *applicant* as Western Power requires, acting as a reasonable and prudent person, to assess the *applicant's* ability to meet its obligations under the resulting *access contract*.

3.6 Information required with electricity transfer applications

The *applicant* must provide the following information to Western Power in respect of an *electricity transfer application* at the time of submitting the *electricity transfer application*:

- (a) the *covered services* requested, and for each requested *covered service*:
 - (i) the requested *services start date* and requested *services end date*; and

- (ii) if the *covered service* is a *non-reference service*, then a description of the *non-reference service*, including any deviation sought from the applicable *tariff, service standard* or *standard access contract* for an equivalent *reference service*; and
- (iii) if applicable, the *contracted capacity* sought for the *covered service*; and
- (b) details of the *connection point*; including
 - (i) for an existing *connection point*, any changes to be made to the *standing data* for that *connection point* as a result of the *application*; and
 - (ii) for a new *connection point*, such information regarding the *connection point* required as *standing data*; and
 - (iii) information regarding the *controller*, if the *applicant* will not be the *controller*, in compliance with the relevant provisions of the *Metering Code* in regard to the provision of *controller* information (where all references to a 'customer' under the relevant provisions of the *Metering Code* are to be read as references to the *controller* for the purposes of this clause 3.6).

3.7 Information required with connection applications

The *applicant* must provide the following information to Western Power in respect of a *connection application* at the time of submitting the *connection application*:

- (a) whether the *application* is being made in connection with a tender process; and
- (b) the *covered services* requested; and
- (c) the requested *services start date* and requested *services end date*, for;
 - (i) *works*; and
 - (ii) *covered services* involving the transfer of electricity that are likely to be sought under an associated *electricity transfer application*,as applicable, and
- (d) the *capacity* sought, if applicable; and
- (e) such information regarding the *facilities* and *equipment* at the *connection point* to the extent required by:
 - (i) the *technical rules*; and
 - (ii) Western Power acting as a reasonable and prudent person,

and

- (f) a full description of any exemptions to the *technical rules* sought by the *applicant* under Chapter 12 of the *Code*.

3.8 One electricity transfer access contract per connection point

Each *connection point* must be included in one and only one *electricity transfer access contract* to allow the transfer of electricity at that *connection point*.

3.9 Forecasts of information

When an *application* contains estimates or forecasts of any information:

- (a) Western Power may treat that estimated or forecast information as factual information; and
- (b) the *application* is a warranty by the *applicant* to Western Power that each such estimate or forecast is the *applicant's* best estimate or forecast acting as a *reasonable and prudent person*.

3.10 Errors or omissions in an application

- (a) If Western Power becomes aware of any material error or omission in an *application* it must immediately notify the *applicant* about it and may request information under clause 3.11.
- (b) If an *applicant* is notified by Western Power under clause 3.10(a) or otherwise becomes aware of any material error or omission in an *application*, it must amend the *application* to remedy it as soon as practicable after becoming aware of it.
- (c) If Western Power has notified the *applicant* under clause 3.10(a), the *applicant* must amend the *application* to remedy the material error or omission within 20 business days, or the *application* and, as applicable, any associated *electricity transfer application* or *connection application* will be deemed to have been withdrawn.
- (d) If remedying an error or omission in an *application* amounts to a material amendment to the *application*, clause 24A applies.

3.11 Additional information

- (a) At any time, Western Power may, acting as a reasonable and prudent person, request the *applicant* to provide further information that Western Power reasonably requires to enable it to process the *application*.

- (b) If Western Power has notified the *applicant* under clause 3.11(a), the *applicant* must amend the *application* to provide the additional information within 20 business days, or the *application* and, as applicable, any associated *electricity transfer application* or *connection application* will be deemed to have been withdrawn.
- (c) If providing additional information for an *application* amounts to a material amendment to the *application*, clause 24A applies.

3.12 Western Power must be expeditious and diligent

Western Power must process an *application* expeditiously and diligently.

3.13 Amendment and withdrawal of application

- (a) An *applicant* may at any time by notice in writing to Western Power, amend an *application*.
- (b) If an amendment to an *application* results in a change to the original *lodgement fee*, Western Power may charge the applicant the new *lodgement fee* or refund part of the original *lodgement fee*, having regard for the work already completed in processing the *application*.
- (c) An *applicant* may at any time before it enters into an *access contract*, by notice in writing to Western Power, withdraw an *application*.
- (d) Unused.
- (e) Without limiting this clause 3.13, an amendment to an *application* may include a change to the identity of the *applicant* in which case the other information in the *application* must also be amended.

3.14 Applications do not expire

An *application* does not expire due to the passage of time.

4. The access offer

4.1 Access offer to be signed by Western Power

Western Power must present the *access offer* in such a form that it can, without anything else being required, become or modify an *access contract* or *access contracts* when signed by an *applicant*.

4.2 If application requests reference service

If an *application* requests a *reference service*, then the *access offer* must be on materially the same terms as the *standard access contract* applicable to the *reference service*.

4.3 If application requests non-reference service

If an *application* requests a *non-reference service*, then the terms of the *access offer* must be:

- (a) consistent with the *Code objective*; and
- (b) reasonable; and
- (c) subject to this *applications and queuing policy*, as similar as practicable to those terms requested in the *application* dealing with the relevant matter, and negotiated in good faith by the *applicant* and Western Power during the processing of the *application*.

4.4 Services start date and services end date

The *services start date* and the *services end date* specified in the *access offer* must be as close as practicable to the *services start date* and the *services end date* sought in the *application*.

4.5 Conditions precedent permitted in access contract

Western Power and an *applicant* must negotiate in good faith regarding any conditions precedent that the *applicant* or Western Power seek to have included in an *access contract* in order to achieve the objectives set out in clause 4.6. For the avoidance of doubt, Western Power may require a condition precedent in the *access contract* that:

- (a) The *works* involved in providing *access* to the *applicant* pass a *regulatory test* (if required); and
- (b) Other *applicants* that are:
 - (i) in the same *competing applications group* as the *applicant*; and
 - (ii) have been or are subsequently offered *access contracts*,

enter those *access contracts* with Western Power and that any conditions precedents in those *access contracts* are fulfilled.

4.6 Objectives with regard to conditions precedent

The objectives of this *applications and queuing policy* with regard to conditions precedent are:

- (a) conditions precedent in *access contracts* should facilitate the development of *electricity consuming* and *generating* projects and provide flexibility; and
- (b) conditions precedent should not unduly impede the ability of Western Power to provide *covered services* to competing *applicants* or cause uncertainty and delay; and
- (c) conditions precedent should not constitute an inappropriate barrier to entry into a market or be for the purpose of hindering or preventing access by any person to *covered services*.

4.7 Conditions precedent and determination of spare capacity

In determining whether there is sufficient *spare capacity* to provide *covered services* requested in an *application*, Western Power must regard any existing *access contracts* with conditions precedent as being unconditional.

4.8 Conditions precedent not longer than 8 months

- (a) Western Power and an *applicant* may not enter into an *access contract* that contains a condition precedent for which a period of longer than 8 months from the date the *access contract* was entered into is allowed for its fulfilment.
- (b) If, after 8 months, a condition precedent in an *access contract* has not been fulfilled, then:
 - (i) if there is no *competing application*, Western Power and the relevant *user* may agree within 20 business days to extend the period in the *access contract* allowed for the satisfaction of conditions precedent by up to a further 6 months; or
 - (ii) if there is a *competing application*, then, subject to clause 6, Western Power and the existing *user* must negotiate in good faith within 20 business days to accommodate both the *user's* and the *competing applicant's* requirements.

{Note: this might mean sharing the costs of *augmentation* as calculated under the *contributions policy*, or some other means of resolving the conflict.}

- (c) If no agreement is reached under clause 4.8(b), then either Western Power or the *user* may:
 - (i) terminate the *access contract*; or

- (ii) waive any conditions precedent that are for the benefit of that party if that would result in the *access contract* becoming unconditional; or
- (iii) refer this matter to the *Arbitrator* as an *access dispute*.

4.9 Security

- (a) Subject to clause 4.9(b), if there is a material risk that the *applicant* will be unable to meet any or all of its liabilities under an *access contract* resulting from the *applicant's application*, then Western Power may require the *applicant* to procure:
 - (i) an indemnifier acceptable to Western Power (acting as a reasonable and prudent person) who will agree to be a party to the *access contract* and indemnify Western Power in respect of those liabilities; or
 - (ii) a guarantor acceptable to Western Power (acting as a reasonable and prudent person) to provide a guarantee in favour of Western Power substantially in the form set out Schedule 1,
- (b) If an *applicant* has an unqualified credit rating of at least:
 - (i) BBB from Standard and Poor's Australia Pty Ltd; or
 - (ii) Baa from Moody's Investor Service Pty Ltd,and provides evidence to this effect to Western Power, without limiting the User's security obligations related to clause 4.9(c), then Western Power is not entitled to require the User to provide the security under clause 4.9(a).
- (c) Notwithstanding an *applicant* providing evidence that it has an unqualified credit rating in accordance with clause 4.9(b), Western Power may, as a condition under an *access contract* or otherwise, require the *user or indemnifier* to provide an irrevocable and unconditional bank guarantee or equivalent financial instrument in terms acceptable to Western Power (acting as a reasonable and prudent person), guaranteeing the value of any amount of any *contribution* that remains unpaid or not provided at the time of requirement.
- (d) Western Power may perform a security assessment under this clause 4.9 prior to making an *access offer*.

4.10 Arbitrator's powers preserved

Nothing in this clause 4 limits the *Arbitrator's* power to make an award compelling Western Power to provide *access* to a *covered service* on terms specified in the award.

5. Entering into or modifying an access contract

5.1 When access offer becomes access contract

- (a) An *access offer* becomes an *access contract*, or modifies an existing *access contract* in accordance with the terms of that *access contract*, as applicable, when *signed* by both parties.
- (b) Western Power must *sign* the *access offer* before giving the *access offer* to the *applicant*.

5.2 Applicant's options on receipt of an access offer

The *applicant* must as soon as practicable, and in any event within 30 business days after receipt of an *access offer*, either:

- (a) *sign* the *access offer*, thereby entering into an *access contract* or modifying an existing *access contract*, as applicable; or
- (b) by notice to Western Power reject the *access offer* and request amendments to the *application*; or
- (c) by notice to Western Power withdraw the *application*,

and if 30 Business Days after receipt of the *access offer* the *applicant* has not complied with any of clauses 5.2(a), 5.2(b), or 5.2(c), then (unless the *Arbitrator* makes an order extending the time limit on the ground that the delay is beyond the *applicant's* reasonable control) the *applicant* is to be taken to have withdrawn its *application* and any, as applicable, associated *electricity transfer application* or *connection application*.

5.3 If applicant rejects access offer and requests amendments

If the *applicant* rejects an *access offer* and requests amendments to the *application* under clause 5.2(b), Western Power and the *applicant* must negotiate in good faith regarding the *application*, but if Western Power and the *applicant* have not signed an *access contract* (including an *access contract* with conditions precedent) within 30 business days, then the *application* and any, as applicable, associated *electricity transfer application* or *connection application* will be deemed to have been withdrawn.

5.4 If applicant accepts access offer

If the *applicant* signs the *access offer*, it must:

- (a) forthwith give written notice of the *signing* to Western Power;

- (b) as soon as practicable procure the stamping of the *signed access contract*, if applicable, and pay all stamp duties that are assessed by the Office of State Revenue on the *access contract*; and
- (c) as soon as practicable thereafter give to Western Power at least one original copy of the *signed and stamped access contract*.

5.5 Connection application ceases to exist after signing

Upon both Western Power and the *applicant signing an access contract*, and any conditions precedent in the *access contract* being fulfilled, the *application* in relation to which the *access contract* was entered ceases to exist.

6. Confidentiality

6.1 Confidential information

Information which Western Power is required to disclose under clauses 18.2A, 24.9(a), 24.9(b), or 24.9(c) is not confidential information.

6.2 Confidential information must not be disclosed

Western Power, an *applicant* or a *disclosing person* must not disclose *confidential information* unless:

- (a) the disclosure is made to the *Authority* on a confidential basis; or
- (b) the disclosure, where it is made by an *applicant* or a *disclosing person*, is made to a *worker* of Western Power who is bound by an adequate confidentiality undertaking; or
- (c) the disclosure is made with the consent of the *disclosing person*; or
- (d) the disclosure is required or allowed by law, or by the *Arbitrator* or another court or tribunal constituted by law; or
- (e) the information has entered the public domain other than by breach of this clause 6.2; or
- (f) the information could be inferred by a reasonable and prudent person from information already in the public domain.

Part B – Electricity transfer applications

7. Costs and timing of processing electricity transfer applications

7.1 Where applicant seeks a reference service

- (a) An *applicant* who seeks a *reference service* must pay to Western Power the *lodgement fee* in the *price list* specified as being applicable to the *applicant's application* in this *applications and queuing policy*, which will be either:
 - (i) a *new connection point fee*; or
 - (ii) an *access contract modification fee*; or
 - (iii) a *new access contract fee*.
- (b) If the *applicant* is not an *existing user*, then the *lodgement fee* must be paid at the time the *applicant* lodges its *electricity transfer application*.
- (c) If the *applicant* is an *existing user*, then the *lodgement fee* will be added to the next invoice under the *user's existing access contract*.
- (d) Western Power must notify the *applicant* that it has received the *applicant's electricity transfer application* within 5 business days.
- (e) Subject to Western Power performing a security assessment under clause 4.9, if the *applicant* is an *existing user* and selects a *reference service*, then Western Power must use reasonable endeavours to make an *access offer*, by notice to the *applicant*, to modify the *applicant's access contract*:
 - (i) within 5 business days of receiving the *complete electricity transfer application*; or
 - (ii) within 5 business days of an *access offer* being *signed* by an *applicant* for any associated *connection application*,whichever is later.
- (f) Subject to Western Power performing a security assessments under clause 4.9, if the *applicant* is not an *existing user*, and selects a *reference service*, Western Power must use reasonable endeavours to make an *access offer*:
 - (i) within 10 business days of receiving the *complete electricity transfer application*; or
 - (ii) within 5 business days of an *access offer* being *signed* by an *applicant* for any associated *connection application*,

whichever is later.

7.2 Where applicant seeks a non-reference service

- (a) An *applicant* seeking a *non-reference service*, including, but not limited to, an *exit service* or an *entry service* or a *bidirectional service* with a different *tariff* or a different *access contract* than for an equivalent *reference service*, then the *applicant* must, when requested by Western Power, pay an amount to Western Power in respect of a reasonable cost incurred, or to be incurred within a reasonable timeframe, in processing the *application*.
- (b) The total of the costs referred to in clause 7.2(a) must not exceed the reasonable costs which would be incurred by a prudent *service provider*, acting efficiently and in good faith, seeking to achieve the lowest practicable cost of processing the *application*.
- (c) The costs referred to in clause 7.2(a) must not include any costs of Western Power in relation to an *access dispute* (which are to be awarded by the *Arbitrator* under Chapter 10 of the *Code*).
- (d) If an *applicant* selects a *non-reference service*, then Western Power must make an *access offer* as soon as practicable after the *complete application* is lodged, having regard to the nature of the *non-reference service* being sought by the *applicant*.

7.3 Connection application costs not affected

Nothing under this Part B affects costs applicable for a *connection application*.

7.4 Variation from this applications and queuing policy

An *applicant* and Western Power may agree to deal with any matter in connection with the *applicant's application* in a manner different to the treatment of the matter in this *applications and queuing policy* as long as the ability of Western Power to provide a *covered service* that is sought by another *applicant* is not impeded.

8. Eligibility criteria for reference services

If an *applicant* seeks a *reference service* and Western Power is satisfied as a reasonable and prudent person that the *applicant* does not meet the eligibility criteria given in the *access arrangement* for the *reference service*, then Western Power may reject the *applicant's electricity transfer application*.

9. Electricity transfer application for a new connection point

9.1 Customer transfer request

- (a) An *incoming retailer* may lodge a *customer transfer request* with Western Power with respect to a *contestable exit point*. With respect to the *customer transfer request*:
 - (i) Western Power, the *incoming retailer* and the *previous retailer* must comply with the *Customer Transfer Code*; and
 - (ii) except as specified in this clause 9, this *applications and queuing policy* does not apply.
- (b) Western Power must not process the *customer transfer request* if it determines under clause 13 that the *exit point* is not *contestable*.
- (c) Western Power must process a *customer transfer request* such that the *incoming retailer* receives the same *covered service* at the same *contracted capacity* as the *previous retailer*.
- (d) The *exit point* must be transferred as a complete and indivisible unit such that all associated *meters* are transferred in one transaction.
- (e) If the *incoming retailer* seeks to modify the *covered service* with respect to an *exit point* that has been the subject of a *customer transfer request*, then that *incoming retailer* must make an *application* under this *applications and queuing policy* as a separate transaction after the *customer transfer request* has been processed.

9.2 Creating a new connection point or connecting new generating plant

- (a) An *applicant* who seeks to create a new *connection point* or to install new *generating plant* at an existing *connection point* must:
 - (i) submit an *electricity transfer application* on the *application form* that is applicable for the type of *facilities and equipment* to be connected at the *connection point*; and
 - (ii) submit, or procure that its *customer* submits, a *connection application*.
- (b) If the *applicant* is seeking a *reference service*, then:
 - (i) if the *applicant* is an existing *user*, the new *connection point lodgement fee* applies to the *application*; or
 - (ii) if the *applicant* is not an existing *user*, the new *access contract lodgement fee* applies to the *application*,

but if the *applicant* is seeking a *non-reference service* then clause 7.2 applies to the *application*.

- (c) If an *applicant* submits an *electricity transfer application* subsequent to Western Power making an *access offer* for an associated *connection application* (to the *applicant*, its *customer* or another person) and:

- (i) the *capacity*; or
- (ii) the *services start date* (as relates to the transfer of electricity); or
- (iii) the *services end date* (as relates to the transfer of electricity),

sought in the *connection application* and the *electricity transfer application* are not the same, such that the application of the *contributions policy* based on the information in the *electricity transfer application* would produce a *contribution* different to that specified in the *access offer* for the associated *connection application*, then Western Power may:

- (iv) where the *contribution* would be higher to that specified in the *access offer*, require the *applicant* to pay the difference; or
- (v) where the *contribution* would be lower to that specified in the *access offer* and the *contribution* specified in the *access offer* has been paid by the *applicant*, rebate the difference to the person who paid a *contribution* in respect of the *connection application*,

as applicable.

- (d) The *services start date* for the *covered services* sought under the *electricity transfer application* will be the later of:
- (i) the *services start date* (as relates to the transfer of electricity) sought in the *connection application*; or
 - (ii) the *services start date* sought in the *electricity transfer application*; or
 - (iii) the *completion date* of any *works* resulting from the *connection application*.

10. Electricity transfer application to modify an existing covered service

10.1 Selection of different covered service or selection or modification of an existing non-reference service

- (a) An *applicant* may make an *electricity transfer application* to select a different *reference service*, or to select or modify a *non-reference service*, with respect to a *connection point* in the *applicant's access contract*, by notice to Western Power.

- (b) If the *applicant* is seeking a *reference service*, then the new *connection point lodgement fee* applies to the *application*.
- (c) If the *applicant* is seeking a *non-reference service* then clause 7.2 applies to the *application*.
- (d) If Western Power considers, as a reasonable and prudent person, that the requested change in *covered service* indicates that the *applicant* will require a greater *capacity*, then:
 - (i) Western Power must notify the *applicant* within 5 business days whether the *applicant* must also submit, or procure that its *controller* submits, a *connection application* for an increase in *contracted capacity*; and
 - (ii) the *priority date* of such *connection application* shall be determined:
 - (A) if a *complete connection application* is received by Western Power within 20 business days of the notice sent to the *applicant* under clause 10.1(d)(i), from the date Western Power received the *electricity transfer application* under clause 10.1(a); and
 - (B) otherwise, from the date Western Power received the *complete connection application*.
- (e) If the *application* requests a new *covered service* that is serviced at a different voltage than the existing *covered service*, then Western Power must notify the *applicant* that it must submit, or procure that its *controller* submits, a *connection application*.

10.2 Increase or decrease in contracted capacity

- (a) An *electricity transfer application* to increase or decrease *contracted capacity* with respect to an existing *covered service* under the *applicant's access contract* may be made by notice to Western Power.
- (b) The *lodgement fee* for an *access contract* modification applies to the *applicant's application*, plus any costs for any associated *connection application*.
- (c) Western Power must notify the *applicant* whether or not it accepts the increase or decrease in *contracted capacity* within 5 business days of receipt by Western Power of the *applicant's* notice under clause 10.2(a) (or such further time as a prudent *service provider* would reasonably require to consider such *application*).
- (d) Western Power must accept the increase or decrease in *contracted capacity* if it forms the view as a reasonable and prudent person that:

- (i) accepting the increase or decrease in *contracted capacity* would not be likely to impede the ability of Western Power to provide a *covered service* sought in an *application* lodged by another *applicant*; and
 - (ii) it is not likely that an *augmentation* or any *work* would be required to provide the increase or decrease in *contracted capacity*, and
 - (iii) in the case of a second or further *application* or notice in any rolling period of 12 months, the additional *applications* or notice satisfies clause 10.3.
- (e) If Western Power determines that it cannot form the view required for acceptance of the increase or decrease in *contracted capacity* under clause 10.2(d), then:
- (i) Western Power must notify the *applicant* that it must submit, or procure that its *controller* submits, a *connection application*; and
 - (ii) the *priority date* of such *connection application* shall be determined:
 - (A) if a *complete connection application* is received by Western Power within 20 business days of the notice sent to the *applicant* under clause 10.2(e)(i), from the date Western Power received the *electricity transfer application* under clause 10.2(a); and
 - (B) otherwise, from the date Western Power received the complete *connection application*.

10.3 More than 1 change or modification within 12 months

If Western Power receives:

- (a) more than 1 *application* or notice under clause 10.1; or
- (b) more than 1 *application* or notice under clause 10.2,

seeking to change the *covered service*, including to decrease or increase the contracted capacity, with respect to a single *connection point* in any rolling period of 12 months, then in relation to each additional *application* or notice Western Power:

- (c) may, subject to this clause 10, accept the change of *covered service*, where Western Power is satisfied, as a reasonable and prudent person, that the new *covered service* will be sufficient to meet the actual requirements of the *applicant*, and that it is required by reason of one or more of the following circumstances:
 - (i) a change in the actual *consumption* or *generation* by the *applicant* in respect of that *connection point* over the 12 month period prior to the *applicant* giving notice under clause 10.1(a) or 10.2(a) (as applicable), as recorded by the *metering equipment*; or

- (ii) a change in the nature of the business or operation conducted at the connection point; or
 - (iii) a shutdown of the business or operation conducted at the connection point (including a shutdown for maintenance purposes) for longer than 1 continuous month; or
 - (iv) a rapid increase or decline in the business at the connection point; or
 - (v) a decrease in the number of capacity credits (as defined in the Market Rules) allocated to any generating plant at the connection point under the Market Rules; or
 - (vi) as part of a *relocation* or; or
 - (vii) some other special circumstance,
- and
- (d) is entitled to refuse the change in *covered service* where Western Power is satisfied, as a reasonable and prudent person, that the change is sought by reason of the seasonal nature of the business or operation at the *connection point*.

10.4 Modification of generating plant

- (a) An *applicant* must make a *connection application* before materially changing any of those characteristics of *generating plant connected* at a *connection point* required to be provided in the applicable *application form*.
- (b) If the *applicant signs* an *access offer* in respect of the *connection application*, then the parties must amend the *applicant's access contract* accordingly.

11. De-energisation and re-energisation

11.1 De-energisation

A request by a *user* to Western Power to *de-energise* an existing *connection point* under the *user's access contract* or applicable *laws* is not an *application* and this *applications and queuing policy* does not apply to it.

11.2 Re-energisation

- (a) An *applicant* who seeks to *re-energise* an existing *de-energised connection point* must submit an *electricity transfer application* on the *application form* that is applicable for the type of *facilities and equipment connected* or to be connected at the *connection point*.

- (b) If the *applicant* does not have an *electricity transfer access contract*, then the *lodgement fee* for a new *access contract* applies to the *application*, plus costs associated with the *re-energisation* under the *Metering Code*.
- (c) If the *de-energised connection point* is not on the *applicant's electricity transfer access contract*, then the *lodgement fee* for a new *connection point* applies to the *application*, plus costs associated with the *re-energisation* under the *Metering Code*.
- (d) If the *de-energised connection point* is on the *applicant's electricity transfer access contract*, then only the costs associated with the *re-energisation* under the *Metering Code* apply to the *application*.
- (e) Subject to clause 11.2(g), Western Power must determine, as a reasonable and prudent person, within 5 business days whether it will accept the request for *re-energising*.
- (f) If Western Power determines that it cannot accept the request for *re-energising* under clause 11.2(e), then:
 - (i) Western Power must notify the *applicant* that it must submit, or procure that its *controller* submits, a *connection application*; and
 - (ii) the *priority date* of such *connection application* shall be determined:
 - (A) if a *complete connection application* is received by Western Power within 20 business days of the notice sent to the *applicant* under clause 11.2(f)(i), from the date Western Power received the *electricity transfer application* under clause 11.2(a); and
 - (B) otherwise, from the date Western Power received the *complete connection application*.
- (g) Nothing in clause 11.2 derogates from the obligations of Western Power to *re-energise* a *connection point* within the timeframes specified in clause 8.2 of the *Code of Conduct for the Supply of Electricity to Small Use Customers 2004* or regulations 7 and 8 of the *Electricity Industry (Obligations to Connect) Regulations 2005*.

12. Electricity transfer application to obtain a new access contract

- (a) An *applicant* who seeks a new *access contract*, other than under clauses 8 to 11, may make an *electricity transfer application* by notice to Western Power.
- (b) If an *applicant* makes an *application* under clause 12(a), then:

- (i) if the *applicant* seeks a *standard access contract*, then the *lodgement fee* for a new *access contract* applies to the *application*; or
- (ii) if the *applicant* seeks an *access contract* that is materially different to a *standard access contract*, then clause 7.2 applies to the *application*.

13. Contestability assessment

13.1 Western Power must perform contestability assessment

- (a) When:
 - (i) an *applicant* makes an *electricity transfer application* or a *connection application* to establish a new *exit point*; or
 - (ii) an *incoming retailer* makes a *customer transfer request* with regard to an *exit point*,

Western Power must determine if the *exit point* is, or will be, *contestable* under clause 13.2.

- (b) Western Power must perform an assessment under this clause 13 within 5 business days of the event that triggered the assessment.

13.2 Rules for contestability

Western Power must determine that an *exit point* is *contestable* where:

- (a) Western Power has previously determined that the *exit point* is *contestable*; or
- (b) the latest 12 months' actual *consumption* at the *exit point* is equal to or greater than the *contestability threshold*; or
- (c) the latest 12 months' actual *consumption* at the *exit point* is below the *contestability threshold*, or 12 months actual *consumption* data does not exist, but Western Power considers, as a reasonable and prudent person, that the *consumption* during the next 12 months will be above the *contestability threshold*,

and otherwise Western Power must determine that the *exit point* is not *contestable*.

13.3 Rejection of application

Where Western Power is not authorised under the *Act* or other *written law* to make an *access offer* for an *application* relating to an *exit point* that is not *contestable*, Western Power must reject the *application*.

{Note: Under section 54 of the *Electricity Corporations Act 2005* Western Power is prohibited from making an *access offer* to an *applicant* to provide *covered services* to that *applicant* at or for an *exit point* that is not *contestable*, except where the *applicant*

is the 'Electricity Retail Corporation' (as defined in section 3 of the Electricity Corporations Act 2005) or a subsidiary of the Electricity Retail Corporation.)

14. Connection point configuration

14.1 Rules for mapping network assets to a single connection point

Western Power must comply with the following when determining the configuration of a *connection point*:

- (a) the proposed configuration must meet the *WA Electrical Requirements*, made pursuant to regulation 49 of the *Electricity (Licensing) Regulations 1991*; and
- (b) a *connection point* may be associated with one or more *revenue meters* which measure and record *energy data*, or none if it is an *unmetered connection point*; and
- (c) if the *connection point* is associated with more than one *revenue meter*, they must be either all *interval meters* or all *accumulation meters*, and not a combination of *interval meters* and *accumulation meters*; and
- (d) a *connection point* may comprise more than one *attachment point* to the *network* provided that each *attachment point* is to the same lot or *premises* and is operated at the same voltage; and
- (e) a *connection point* must have one and only one *controller* at the *connection point*; and
- (f) a *connection point* must have only one type of *exit service*, if any, and only one type of *entry service*, if any, and only one type of *bidirectional service*, if any; and
- (g) a *connection point* must have only one applicable *loss factor*.

14.2 One NMI per connection point

Western Power must allocate one *NMI* per *connection point*.

14.3 Combining multiple connection points into a single connection point

- (a) A person may make an *electricity transfer access application* to have multiple *connection points* supplying a single *premise* or adjacent *premises* of a single commercial or industrial complex combined into a single *connection point*, subject to clause 14.1, by notice to Western Power.
- (b) The *lodgement fee* for a new *connection point* applies to an *application* made under clause 14.1.

- (c) Where an *applicant* applies under clause 14.3(a), the *applicant* must demonstrate that the *connection points* are integral to a single business.

{For example, a supermarket acquiring adjacent *premises* to its existing *premises* with the intention of expanding its operation across these *premises* can combine the two *exit points* into a single *exit point*.}

- (d) A *retailer* must have *verifiable consent* from its *customer* before making an *electricity transfer application* to change the configuration of a *connection point*.
- (e) Western Power must determine, as a reasonable and prudent person, within 5 business days whether it will accept the *application*.
- (f) If Western Power determines that it cannot accept the *application* under clause 14.3(e), then:
 - (i) Western Power must notify the *applicant* that it must submit, or procure that its *controller* submits, a *connection application*; and
 - (ii) the *priority date* of such *connection application* shall be determined:
 - (A) if a *complete connection application* is received by Western Power within 20 business days of the notice sent to the *applicant* under clause 14.3(f)(i), from the date Western Power received the *electricity transfer application* under clause 14.3(a); and
 - (B) otherwise, from the date Western Power received the *complete connection application*.

14.4 Separating a single connection point to create multiple connection points

- (a) An *applicant* may make an *electricity transfer application* to divide a single *connection point* into multiple *connection points*, subject to clause 14.1.

{Note: This might occur, for example, to allow the new *connection points* to be migrated to a different *user's access contract*.}
- (b) Each *connection point* created under clause 14.4(a) must have its own *metering equipment*.
- (c) Western Power must determine the *contestability* of each new *exit point* created under clause 14.4(a) separately.
- (d) A *retailer* must have *verifiable consent* from its *customer* before making an *electricity transfer application* to change the configuration of a *connection point*.
- (e) Western Power must determine, as a reasonable and prudent person, within 5 business days whether it will accept the *application*.

- (f) If Western Power determines that it cannot accept the *application* under clause 14.4(e), then:
 - (i) Western Power must notify the *applicant* that it must submit, or procure that its *controller* submits, a *connection application*; and
 - (ii) the *priority date* of such *connection application* shall be determined:
 - (A) if a *complete connection application* is received by Western Power within 20 business days of the notice sent to the *applicant* under clause 14.4(f)(i), from the date Western Power received the *electricity transfer application* under clause 14.4(a); and
 - (B) otherwise, from the date Western Power received the *complete connection application*.

15. Time to perform obligations

15.1 Extension of time to perform obligations

- (a) If:
 - (i) Western Power (acting as a reasonable and prudent person) has requested further information from an *applicant* under clause 3.11 which it reasonably requires to process an *electricity transfer application*; and
 - (ii) the request was made as soon as Western Power became aware that it required the information; and
 - (iii) Western Power has expeditiously and diligently progressed the processing of the *electricity transfer application* before making the request, after receiving the information and (to the extent possible) between making the request and receiving the information,

then the time period for complying with any obligation under this *applications and queuing policy* is extended by an amount of time equal to the time taken by the *applicant* to comply with the request.

- (b) Without limiting the generality of clause 2.5, an *applicant* and Western Power may agree to extend any one or more of any of the time periods set out in this *applications and queuing policy* on one or more occasions, and:
 - (i) the time period is extended by the amount of time agreed; and
 - (ii) unless otherwise agreed, the time for complying with any other obligation is extended by the same amount of time.

15.2 Concurrent applications

Western Power must use reasonable endeavours to comply with the timeframes set out in this *applications and queuing policy* in respect of each *electricity transfer application* which is lodged with Western Power, whether or not it is processing more than one *electricity transfer application* concurrently.

Part C – Connection applications

16. Specific connection applications

16.1 Connection application for a new connection point

- (a) An *applicant* who seeks to create a new *connection point* or to install new *generating plant* at an existing *connection point* must:
 - (i) submit a *connection application* on the *connection application form* that is applicable for the type of *facilities and equipment* to be connected at the *connection point*; and
 - (ii) submit, or procure that its *retailer* submits, an *electricity transfer application* under Part B of this *applications and queuing policy*.

16.2 Connection application for an increase or decrease of contracted capacity

- (a) If, after processing an *electricity transfer application* under clause 10.2, Western Power requires a *connection application*, then the *user* must submit or, if applicable, procure that its *customer* submits, a *connection application* on the *connection application form* that is applicable for the type of *facilities and equipment* that is connected at the *connection point*.
- (b) If a *customer* submits a *connection application* with respect to a *connection point* that will result in an increase to the *contracted capacity* of the *customer's retailer* for that *connection point*, then the *customer* must procure that its *retailer* submit an associated *electricity transfer application* under Part B of this *applications and queuing policy*.

16.3 Connection application to modify generating plant

If an *applicant* seeks to materially change the characteristics of *generating plant* connected at a *connection point*, then the *applicant* must complete those parts of the appropriate *application form* that deal with those characteristics, and include any additional information specified in the *application form* (which might include equipment schedules, drawings and computer models) that Western Power, as a reasonable and prudent person, might require to assess the impact of the modification on the *network* and other *users*.

16.4 Connection application to modify or augment the network

- (a) An *applicant* who seeks to modify or *augment* the *network* other than under clause 16.1 must submit a *connection application* on the applicable *connection application form*.

{Note: This might apply to, for example, a developer seeking to service a subdivision, a builder seeking a temporary supply, or a person seeking to relocate network assets.}

- (b) If there is no applicable *application form* provided for a *connection application* then the *applicant* may submit its *connection application* by notice to Western Power.

17. Lead time for connection applications

An *applicant* must endeavour to lodge a *connection application* to Western Power within a reasonable time before the requested *services start date*, having regard for:

- (a) the time required to determine if any *works* are required, and if so then the time required to plan, design, cost, approve, finance, construct and commission the *works*, including, if applicable, the time required to perform a *regulatory test*; and
- (b) the time required to finalise an *access offer* for the *connection application*; and
- (c) if the *applicant* has requested a derogation from the *technical rules*, then the time required to process this request.

17A. Pre-enquiry discussions

17A.1 Applicant may contact Western Power

A party considering making a *connection application* may contact Western Power to discuss a proposed *connection application* with Western Power. Western Power will provide reasonable assistance to such *applicants* but this will not include undertaking studies for the *applicant*.

17A.2 Informal discussions not binding

The discussions under this clause 17A are not binding on Western Power, and Western Power is not liable for any error or omission that is made as a *reasonable and prudent person* in the discussions under this clause 17A.

18. Enquiry stage

18.1 Compulsory enquiry notification

Where an *applicant* expects, in good faith, to proceed to a *connection application*, then prior to lodging a *connection application* with Western Power, the *applicant* must lodge an *enquiry* with Western Power to notify Western Power of the proposed *connection application*, and may request a preliminary assessment under clause 19.3, and Western Power must engage in such discussions in good faith and use all reasonable endeavours to satisfactorily and promptly address any matters raised by the *applicant*.

18.2 Applicant may request studies and information

An *applicant* may request Western Power to undertake system studies or perform other work necessary to assist the *applicant* in preparing its *connection application*, in which case:

- (a) Western Power must endeavour to perform such work within a reasonable time; and
- (b) unused; and
- (c) clause 20 applies.

{This might occur, for example, if the *applicant* needs input into feasibility studies to determine which of its potential projects proceeds to an *application*.}

18.2A Western Power to issue an *enquiry* response letter at conclusion of *enquiry* stage

- (a) At the conclusion of the *enquiry* stage, Western Power must issue an *enquiry* response letter to the *applicant* setting out:
 - (i) a description of the information required for a *complete application*, and the results of any assessment that it may have carried out to indicate the extent of any *spare capacity* available to provide *covered services*.
 - (ii) the existence of any *competing applications*; and
 - (iii) any constraints known to Western Power on the ability of the *network* to provide the *capacity* proposed as *contracted capacity* in the *connection application* by the *applicant*.
- (b) Western Power will endeavour to send the *enquiry* response letter to the *applicant* within 40 business days of the lodgement of the *enquiry*, or within 40 business days of completion of any system studies or other works requested by the *applicant* under clause 18.2.

18.3 *Enquiry* response letter and discussions not binding

The *enquiry* response letter and discussions under this clause 18 are not binding on Western Power, and Western Power is not liable for any error or omission that is made as a *reasonable and prudent person* in the *enquiry* response letter and discussions under this clause 18.

18.4 Fee payable

At the time that the *applicant* lodges an *enquiry* under this clause 18, Western Power may charge a non-refundable fixed fee for processing the *enquiry*. For the avoidance of doubt, this is in addition to any other payment, charge for costs, or fee.

19. Reporting during the processing of the *connection application*

19.1 Initial response

- (a) Subject to clause 19.1(b), Western Power must provide an *initial response* to the *applicant* within 20 business days of receiving the *applicant's connection application*, specifying:
 - (i) the time by which Western Power will provide a preliminary assessment under clause 19.3 with regards to the *connection application* (if requested); and
 - (ii) the time by which Western Power expects to make an *access offer*.
 - (iii) unused
- (b) If, by the time by which Western Power is required to give an *applicant* an *initial response* under clause 19.1, Western Power has given the *applicant* an *access offer*, Western Power is not required to provide an *initial response* to the *applicant*.

19.2 Initial response is not binding

An *initial response* is not binding on Western Power, and Western Power is not liable for any error or omission, which is made as a *reasonable and prudent person*, in an *initial response*.

19.3 Preliminary assessment

A preliminary assessment with regards to a *connection application* may consist of an assessment as to:

- (a) whether it is likely that there is sufficient *spare capacity* to provide the requested *covered services* or whether any *works* might be required to provide the *covered services*, including whether it is likely that any new *connection assets* will be required to provide the *covered services* requested in the *application*; and

- (a2) whether any other *applications* are *competing* with the *application* and the possible grouping of the *application* with *competing applications* into one or more *competing applications groups*; and
- (b) if it is likely that *works* will be required – operational and technical details of the *works*; and
- (c) if it is likely that *works* will be required – whether or not a *contribution* will likely be required from the *applicant* under the *contributions policy* and a good faith estimate of the approximate amount of the *contribution*; and
- (d) if it is likely that *works* will be required – a good faith estimate of the likely time required for the planning, designing, approving, financing, construction and commissioning, as applicable, of any necessary *augmentation* or *works*; and
- (e) Western Power’s proposal for processing the *application*, if applicable under clause 20.2.

19.4 Updates and progress reporting

- (a) An *applicant* must advise Western Power if there is a material change in any information previously provided by the *applicant* as part of the *applicant’s application*.
- (b) Western Power must upon request by the *applicant* (which request must not be made more frequently than once per month, and must not be made less than one month following the provision of an *initial response*) provide a progress report to the *applicant* containing information in reasonable detail regarding the processing of the *connection application*, including whether there has been any material change in any estimates of scope, costs or times, either for processing the *connection application* or for any *works* that might result from the *connection application*, previously provided by Western Power.

20. Connection application costs

20.1 Applicant must pay costs

- (a) If:
 - (i) the *applicant* lodges an *enquiry* under clause 18, and the *applicant* requests Western Power to perform any system or other studies, prepare detailed cost estimates or do any other work to assist the *applicant* prior to the *applicant* lodging a *connection application*;

- (ii) an *applicant* has submitted a *connection application* and has agreed for Western Power to perform any system or other studies, prepare detailed cost estimates or do any other work to process the application, under clause 20.2 or clause 20.3; or
- (iii) an actual or prospective *applicant* has sought information or assistance from Western Power and Western Power has agreed to perform any system or other studies, prepare detailed cost estimates or do any other work to provide, or in connection with, that information or assistance,

then the *applicant* must, when requested by Western Power, pay to Western Power its reasonable costs incurred, or to be incurred within a reasonable timeframe, in processing the *enquiry* or *connection application* or otherwise undertaking the studies, cost estimates and work referred to in paragraphs (i), (ii) and/or (iii) above.

- (b) The total of the costs referred to in clause 20.1(a) must not exceed a genuine pre-estimate of the reasonable costs which would be incurred by a prudent *service provider*, acting efficiently and in good faith, in accordance with *good electricity industry practice*, seeking to achieve the lowest practicable cost of processing the *connection application*.
- (b1) For the avoidance of doubt, Western Power may charge *applicants* other fees and charges in addition to the costs referred to in this clause, and the provisions of clause 20.1(b) do not apply to such other fees and charges. Such fees include the *application* fees referred to in clause 7.1, the enquiry fee referred to in clause 18.4, the preliminary offer processing fee referred to in clause 24.3, and the preliminary acceptance fee referred to in clause 24.5(b).
- (c) The costs referred to in clause 20.1(a) must not include any costs of Western Power in relation to an *access dispute* (which are to be awarded by the *Arbitrator* under Chapter 10 of the *Code*).

20.2 Processing proposal

- (a) Where Western Power considers that to process a *connection* application, or in connection with any request for information or other assistance made to it by an actual or prospective *applicant*, it must perform any system or other studies, prepare detailed cost estimates or do any other works or where an *applicant* requests a study under clause 20.3 then:
 - (i) Western Power must provide a proposal to the *applicant* outlining the scope, timing and a good faith estimate of the likely costs to be incurred for processing the *connection application* and/or otherwise undertaking the studies, cost estimates or other works; and

- (ii) the *applicant* may request amendments to the scope of work in the proposal, in which case Western Power and the *applicant* must negotiate in good faith regarding the proposal. In the case of a *connection application* which has been lodged, if Western Power and the *applicant* have not agreed within 60 business days on the scope of the work in the proposal, then the *connection application* and any associated *electricity transfer application* will be deemed to have been withdrawn; and

{Note: This might occur, for example, where the *applicant* is able to perform some of the works itself.}

- (iii) the *applicant* may reject the proposal, and in such case where a *connection application* has been lodged then the *connection application* and any associated *electricity transfer application* are deemed to have been withdrawn; and
 - (iv) (if applicable) the *applicant* may at any time request Western Power to cease processing the *connection application*, in which case the *connection application* and any associated *electricity transfer application* are deemed to have been withdrawn and Western Power must cease all work on the *application*.
- (b) Where Western Power spends the costs paid to it by an *applicant* under clause 20.1(a) in processing the *connection application* or otherwise undertaking the requested cost estimates, studies or other work and requires further payment to cover its actual costs in completing the proposal, then it will notify the *applicant* of the reasons for these higher costs and will make a proposal for payment of such additional costs, and Western Power's proposal under this clause will be dealt with under clause 20.2(a) as though it was an original proposal.
 - (c) Where Western Power has charged an *applicant* costs under clause 20.1(a), then at the time of making an *access offer* to that *applicant* or at the time an *application* is withdrawn (whichever is earlier):
 - (i) If Western Power's actual costs are less than the costs that it has charged, Western Power must refund the unexpended portion of those costs; or
 - (ii) If Western Power's actual costs are more than the costs that it has charged, Western Power may charge an additional fee to cover the reasonable costs in excess of the fee it charged, and the applicant must pay any such additional fee.
 - (d) To avoid doubt, in this clause 20.2 references to an *applicant* may extend to a prospective *applicant*.

20.3 Applicant-specific solution option

- (a) An *applicant* may request Western Power to perform a study of the nature and costs of an *applicant-specific solution* to satisfy the *connection application*. Subject to agreement being reached under clause 20.2(a) in respect of that study, the *applicant* must pay the costs of that study.
- (b) Once Western Power has completed the study, it must provide:
 - (i) existing users that Western Power considers may be impeded; and
 - (ii) any *competing applicant* that is within the same *competing applications group* as the *applicant*,

with the opportunity to object to providing the *applicant-specific solution* to the *applicant*.

- (c) An existing user and *competing applicant* may object to the *applicant-specific solution* on the grounds that the *applicant-specific solution* would impede Western Power's ability to provide *covered services* to that existing user or to provide the *covered services* that are sought in a *competing application* to a *competing applicant* compared with what the position would be if the *applicant-specific solution* were not implemented.
- (d) Western Power will evaluate the objection within 40 business days of it being lodged and if it agrees that the *applicant-specific solution* would impede Western Power's ability to provide *covered services* to an existing user or to provide the *covered services* that are sought in the other *connection application* to a *competing applicant*, then it must either decline to offer an *applicant-specific solution* to the *applicant* or modify the *applicant-specific solution* so that the *applicant-specific solution* would not impede Western Power's ability to provide *covered services* to an existing user or the *covered services* that are sought in another *connection application* to a *competing applicant*. If Western Power elects to modify the *applicant-specific solution* then it must provide a further opportunity to object under clause 20.3(c) to existing users and *competing applicants* that Western Power considers may be impeded by the *applicant-specific solution*.
- (e) If:
 - (i) no objections are made to an *applicant-specific solution*; or
 - (ii) Western Power evaluates under clause 20.3(d) that an *applicant-specific solution* (whether the original *applicant-specific solution* or a further *applicant-specific solution* developed following modification under clause 20.3(d)) would not impede Western Power's ability to provide *covered services* to an

existing *user* or to provide the *covered services* that are sought in another *connection application* to a *competing applicant*,

then Western Power must make an *access offer* to the *applicant* based on the *applicant-specific solution* identified in this clause 20.3(e).

20.4 Disputes may be referred to *Arbitrator*

A dispute between an *applicant* and Western Power regarding a cost under clause 20 may be referred by either party to the *Arbitrator* under section 10.13 of the *Code* (expedited hearings) for determination, in which case the *Arbitrator* may either affirm the amount or reduce it.

20.5 Use of Engineering Firms to provide Studies

- (a) An *applicant* may ask Western Power to permit an engineering firm to conduct a system or other study under this clause 20.
- (b) Western Power will not unreasonably disagree to a request from an *applicant* to use an engineering firm to conduct a system or other study, and where Western Power does disagree, Western Power will provide written reasons explaining why it has disagreed.
- (c) Where Western Power agrees under clause 20.5(a) to a request from an *applicant*, then where this *access and queuing policy* refers to a study done or to be done by Western Power, the reference to Western Power will be taken as a reference to the engineering firm.
- (d) Prior to permitting the engineering firm to conduct a system or other study, Western Power may require the engineering firm to enter into a confidentiality agreement.
- (e) Where Western Power agrees under clause 20.5(a) to a request from an *applicant*, Western Power will provide the engineering firm with all reasonable information and cooperation to enable the engineering firm to conduct the system or other study.
- (f) Western Power reserves the right to require amendments to a system or other study completed by an engineering firm where the system or other study does not provide the information that Western Power considers that Western Power requires from the system or other study.
- (g) Nothing in this clause 20.5 removes Western Power's right to charge *applicants* under clause 20 for Western Power's costs of processing applications, including but not limited to Western Power's costs under clause 20.5(e) and clause 20.5(f).

20A. Unpaid fees or charges

Where any fees or charges under this *access and queuing policy* remain unpaid by an applicant more than 60 business days after they are levied or charged, then Western Power will send a final notice to the *applicant* demanding payment of the fees or charges (“*final notice*”). Where the *applicant* has not paid the fees or charges within 7 business days of the date of Western Power’s *final notice*, the *applicant’s application* and any associated *electricity transfer application* are deemed to be withdrawn.

21. Contributions policy applies

If, during the processing of the *connection application*, Western Power determines that *works* are required to provide the *covered services* sought in the *connection application*, then the *contributions policy* applies to the *connection application*.

22. Unused

23. Release of contracted capacity

Without limiting the circumstances by which *spare capacity* becomes available on the *network*, when an existing *user* reduces *contracted capacity* at one *connection point* and that reduction increases *spare capacity*, then any *application* for that *spare capacity* must be processed by Western Power in accordance with clause 24 and clause 24A, regardless of whether the *user* makes a concurrent *connection application* at that or another *connection point*.

24. Where there are competing applications

24.1 Formation of *competing applications groups*

- (a) Where Western Power assesses that an *application* is competing with other *applications*, then Western Power may elect to manage *competing applications* by forming them into one or more *competing applications groups* and assessing a single set of *works* for *shared assets* required to meet some or all of the requirements of each *competing applications group*. To avoid doubt where there are more than two *competing applications* Western Power may form all the *competing applications* into one *competing applications group* or it may form them into two or more *competing applications groups* as Western Power considers appropriate given the nature of the *applications*.
- (b) An *application* may be sorted into more than one *competing applications group* where Western Power considers this appropriate given the nature of the *application* (for example where the *application* competes with certain other *applications* in respect of one *network* constraint and with certain other *applications* in respect of another *network* constraint).

24.2 Notice of intention to prepare a *preliminary access offer*

Where Western Power considers that a single set of *works for shared assets* may meet some or all of the requirements of the *applicants* within a *competing applications group*, it will issue a notice of intention to prepare a *preliminary access offer* to all *applicants* within that *competing applications group*, and charge a preliminary offer processing fee.

24.3 Response to notice of intention to prepare a *preliminary access offer*

Applicants must respond to the notice issued under clause 24.2 within 30 business days by:

- (a) agreeing to have their application considered within a competing applications group and paying the preliminary offer processing fee. By paying the preliminary offer processing fee, applicants demonstrate the good faith of their intention to proceed to an access contract, and as such the preliminary offer processing fee is non-refundable. Where the applicant subsequently enters an access contract, the preliminary offer processing fee will be counted towards any contribution payable under the contributions policy, or where it exceeds any contribution payable under the contributions policy, the excess will be offset against amounts payable under that access contract; or
- (b) withdrawing their *application*.

Where *applicants* fail to respond to the notice issued under clause 24.2 within 30 business days, their *application* and any associated *electricity transfer application* will be deemed to be withdrawn.

24.4 Western Power's actions following response to the notice of intention to prepare a *preliminary access offer*

Following the response of *applicants* under clause 24.3 (if any), Western Power may, if it continues to consider that a single set of *works for shared assets* may meet some or all of the requirements of a *competing applications group*, make *preliminary access offers* to each applicant within the relevant *competing applications group* at the same time. Western Power will endeavour to make such *preliminary access offers* to each *applicant* within the relevant *competing applications group* within 60 business days after issuing the notice under clause 24.2.

24.5 Response to *preliminary access offers*

- (a) *Applicants* must respond to the *preliminary access offers* within 30 business days after receipt of the *preliminary access offers*, by indicating in good faith in writing either:

- (i) that it would accept such a *preliminary access offer* if it were an *access offer* (“*preliminary acceptance*”). For the avoidance of doubt, such a *preliminary acceptance* does not give rise to a contract; or
 - (ii) that it would reject such a *preliminary access offer* if it were an *access offer* and would request an amendment to the *preliminary access offer*. In this case Western Power and the *applicant* must negotiate in good faith regarding the form of the *preliminary access offer*, but if Western Power and the *applicant* have not agreed on the form of the *preliminary access offer* within 30 business days, then the *connection application* and any associated *electricity transfer application* will be deemed to have been withdrawn; or
 - (iii) that it would not accept such a *preliminary access offer* if it were an *access offer*, in which case the *connection application* and any associated *electricity transfer application* are deemed to have been withdrawn.
- (b) Where *applicants* respond under either clause 24.5(a)(i) or clause 24.5(a)(ii), they must pay within 30 business days a preliminary acceptance fee to Western Power as a demonstration of good faith in their intention to proceed to an *access contract*. The preliminary acceptance fee is non-refundable but, where the *applicant* subsequently enters an *access contract*, the preliminary acceptance fee will be counted towards any *contribution* payable under the *contributions policy*, or where it exceeds any *contribution* payable under the *contributions policy*, the excess will be offset against amounts payable under that *access contract*.

24.6 Subsequent access offers

After reviewing the responses by all *applicants* to *preliminary access offers* under clause 24.5, Western Power will endeavour within 30 business days of receipt of responses by all *applicants* to *preliminary access offers* to:

- (a) make *access offers* to *applicants* within the *competing applicants group*. If Western Power makes *access offers* to *applicants* within the *competing applicants group*, it may make the *access offers* conditional on sufficient acceptance of the *access offers* by *applicants* to ensure that access can be provided to the *applicants* collectively for the costs nominated in the *access offers*; or
- (b) revise its preliminary access offer and submit those revised preliminary access offers to *applicants*; or

- (c) where the sum of the *preliminary acceptance* by *applicants* within a *competing applications group* exceeds the capacity of the proposed works, Western Power may make *access offers* to *applicants* in the order of the *priority date* of *applications* until there is no more spare capacity. If Western Power fails to make an *access offer* to an *applicant* within a *competing applications group*, then notwithstanding any other provision in this *access and queuing policy*, the *application* will remain valid and retain its *priority date* and Western Power will refund any preliminary offer processing fee or preliminary acceptance fee paid by the *applicant*.

{Note: An *access offer* might not be made to an *applicant* under 24.6(c) because there is no more *spare capacity* after making *access offers* to *applicants* with earlier *priority dates*.}

24.7 Changing composition of *competing applications group*

- (a) Western Power may change the composition of a *competing applications group*:
 - (i) to remove, at any time, *applicants* within the *competing applications group* whose *applications* have been withdrawn or been deemed to be withdrawn;
 - (ii) to add additional *applications* to a *competing applications group*, but where Western Power has already issued a notice of intention to prepare a *preliminary access offer* under clause 24.2 to *applicants* within a *competing applications group*, then Western Power will only add additional *applications* to that *competing applications group* where the additional *applications* can be added without delaying preparation of the *preliminary access offer* to the existing *applicants*.
- (b) Despite clause 24.7(a), Western Power may change the composition of a *competing applications group* at any time following changes regarding the nature or location of constraints following other *network* developments, changes in *generation* or changes in loads in which case Western Power may recommence the processes under this clause 24.

24.8 Determining extent of *spare capacity*

In determining whether there is *spare capacity* to provide *covered services* requested in a *connection application* or group of *applications*, Western Power must assume that any existing *access contract* will be renewed in accordance with the terms of that *access contract*.

24.9 Types of information

Western Power must make known to any *applicant* that has lodged an *application* with Western Power, or to any existing *user* with an *access contract* with conditions precedent which have not yet been satisfied or waived:

- (a) whether there are *competing connection applications*; and
- (b) a description of the circumstances which caused the *connection applications* to be *competing connection applications* (including information in reasonable detail regarding the aggregated *capacity* requirements of those *competing connection applications*); and
- (c) an estimate of the likely time until the making of an *access offer*; and
- (d) except to the extent that it is prevented from doing so by clause 6.2, in respect of each *competing connection application*:
 - (i) the *capacity* requirements of the *competing connection application*; and
 - (ii) the geographic location at which the *competing connection application* seeks the *capacity*; and
 - (iii) reasonable details regarding any *augmentation* required by the *competing connection application*.

24.10 When Western Power must update information

Western Power must provide the information in clause 24.9:

- (a) *unused*; and
- (b) at any time after a reasonable request by the *applicant*, or by any existing *user* with an *access contract* with conditions precedent which have not yet been satisfied or waived, for updated information; and
- (c) as soon as practicable after a material change in the information previously notified under this clause 24.10, including when information of the kind referred to in clause 24.9(d) which was previously withheld from disclosure on the ground that Western Power was prevented from disclosing it by clause 6.2 is no longer entitled to be withheld from disclosure on that ground.

24.11 Concurrent consideration

Nothing in clause 24 prevents Western Power from processing more than one *connection application* concurrently.

24.12 When clause 24 does not apply

The provisions in clause 24 do not apply to a *transition application*.

24A. Priority dates of applications in particular circumstances

24A.1 Withdrawn connection applications

An *application* which is withdrawn, or deemed by this *applications and queuing policy* to have been withdrawn, loses its *priority date*, even if it is subsequently amended or resubmitted.

24A.2 Tender projects

(a) If:

- (i) two or more *applicants* notify Western Power that they are competing under a tender process, with respect to new *generating plant*; and
- (ii) only the *applicant* that is successful in its bid will proceed with an access *contract*,

then Western Power must treat each of the *connection applications* that are *competing*, as having the *priority date* of the earliest such *connection application*.

- (b) If an *applicant* that has been unsuccessful in a tender process under clause 24A.2 decides to continue with a *connection application*, then the *priority date* of the *connection application* will become the date that the *connection application* would have had based on the date the *applicant* submitted the *connection application*.

24A.3 Amended connection applications

- (a) Subject to clause 24A.3(b), an amended *connection application* has the same *priority date* as the original *connection application*.
- (b) Subject to clause 24A.3(c), if an amended *connection application* is materially different from the original *connection application*, and if the difference is such that an *applicant* whose *competing application* has a *priority date* subsequent to the original *connection application* is materially prejudiced in terms of the likelihood, timing, cost and terms of its obtaining access (compared with that later *applicant's* position with respect to the original *connection application*), then:
 - (i) if it is possible to construe the amended *connection application* as a combination of the original *connection application* and a notional supplementary *connection application* (whether for further *capacity* or otherwise), the original *connection application* retains its *priority date* and the notional supplementary *connection application* has a *priority date* according to the time of amendment and will be treated for the purposes of this access and queuing policy as a separate *application* with that *priority date*; but

- (ii) otherwise – the amended *connection application* has a *priority date* according to the time of amendment.
- (c) For the purposes of clause 24A.3(b), without limiting the ways in which an amended *connection application* may be materially different from the original *connection application*, an amended *connection application* is not materially different from the original *connection application* if the *capacity* sought in the amended *connection application* is less, or less than 5% more than, the *capacity* sought in the original *connection application*.
- (d) Where an *applicant* has provided a response under clause 24.3 agreeing to have their *application* considered within a *competing applications group* following receipt of a notice of intention to prepare a *preliminary access offer* under clause 24.2 and where that *applicant* subsequently amends its *connection application* then Western Power may if it considers it appropriate (having regard to all relevant factors including the impact of the amendment on other members of the *competing applications group* and on Western Power) make or amend a *Preliminary Access Offer* based on the amended *application*.
- (e) Where Western Power does not agree to make or amend the *Preliminary Access Offer* based on the amended *application* then in making *Preliminary Access Offers* Western Power will treat the relevant *application* on the basis that it has not been amended.

24A.4 Network Control Services

Western Power may make an *access offer* as a result of a procurement process for *Network Control Services* without regard to whether there are any *competing connection applications*.

25. Additional terms of the preliminary access offer or access offer

25.1 Terms under contributions policy

Western Power must include as terms of the *preliminary access offer* or *access offer*:

- (a) the amount of any *contribution* and other payments, such as rebates, determined under the *contributions policy*; and
- (b) any terms related to the provision of the *contribution* that the *applicant* has selected under the *contributions policy*.

25.2 Exemptions from technical rules

The terms related to any exemption to the *technical rules* determined under Chapter 1 of the *technical rules* must be included in the *preliminary access offer* or *access offer*.

26. Making the access offer

Western Power must, acting as a reasonable and prudent person, give an *access offer* to the *applicant* as soon as practicable after the *complete connection application* is lodged, having regard to the nature of the *connection application*, consideration of *competing applications* and the need (where applicable) for *works* involving *shared assets* in order for Western Power to be able to provide access in accordance with the Technical Code.

SCHEDULE 1 FORM OF GUARANTEE

DATE []

PARTIES

1. [### ACN ### a company registered in ### of ###] (“**Guarantor**”); and
2. **Electricity Networks Corporation ABN 18 540 492 861**, a statutory body corporate established by paragraph 4(1)(b) of the *Electricity Corporations Act 2005 (WA)* of 363 Wellington Street, Perth, Western Australia (“**Western Power**”).

RECITALS

- A. Western Power may in its discretion provide Services to [###] (“**the User**”) under an Access Contract at the request of each of the User and the Guarantor.
- B. The Guarantor wishes to execute this Guarantee to secure payment of all amounts payable under the Access Contract to Western Power.

OPERATIVE PROVISIONS

(a) Guarantee

The Guarantor unconditionally and irrevocably Guarantees as a continuing security to Western Power payment by the User of all moneys and liabilities due and/or payable from or by the User to Western Power under or in connection with the contract dated [###] (“**Access Contract**”) created between the User and Western Power (“**Secured Moneys**”), including moneys and liabilities incurred or arising:

- (i) (**liability**): at any present or future time, whether actually or contingently;
- (ii) (**default**): as a result of any breach of or default under the Access Contract; and/or
- (iii) (**account**): by way of principal, interest, cost, charge, expense, disbursement, fee, tax, stamp or other duty, indemnity, damages or monetary judicial order.

(b) Secured Moneys

(i) Demand payment

The Guarantor must pay to Western Power, upon demand by Western Power at any present or future time, the amount of the Secured Moneys due from and payable by the User to Western Power at that time under, and in the manner and currency specified in, the Access Contract.

(ii) Costs

The Guarantor must at any present or future time indemnify Western Power upon demand for any cost, charge, expense, disbursement, fee, tax or stamp or other duty incurred by Western Power at any time in connection with the Access Contract, this Guarantee or the Secured Moneys relating to:

- (A) (**security agreements**): preparation, negotiation, execution or performance, or any termination, amendment, consent, claim, demand or waiver;
- (B) (**security rights**): any exercise or enforcement of any right or power conferred on Western Power;
- (C) (**credit increases**): any extension of further, additional or increased credit or financial accommodation by Western Power, or agreement by Western Power to increase the amount secured; and/or
- (D) (**payments**): the receipt or payment of any moneys, including moneys paid by Western Power by way of reimbursement to any third party.

(iii) Set-Off exclusion

The Guarantor must make any payment required under this Guarantee without set-off or other deduction, except for the deduction or withholding of any tax compelled by law.

(c) Indemnity

The Guarantor must as a separate and additional liability of the Guarantor as a principal debtor, and not as a surety, indemnify Western Power against, and pay to Western Power upon demand by Western Power an amount equal to, all Secured Moneys that are or may become invalid, unenforceable, illegal or irrecoverable for any reason or under any circumstances as a liability to Western Power by the Guarantor as a surety, despite any other provision of this Guarantee.

(d) Guarantee protection

This Guarantee, and the liability of the Guarantor under this Guarantee, is not affected at any time by:

- (i) (**waiver**): the granting to any person by Western Power of any waiver;
- (ii) (**agreements**): any agreement, deed or document created with, or action or omission performed, representation made or non-disclosure of any fact or information by, Western Power or any person;
- (iii) (**Secured Moneys**): any increase or variation in the amount of the Secured Moneys occurring for any reason;

- (iv) **(document amendment)**: any amendment to or transfer, release or termination of any agreement, deed or document or any right, power or liability of any person under any agreement, whether for or without consideration;
- (v) **(enforcement decisions)**: any exercise or enforcement, or any failure or invalidity in, the exercise or enforcement by Western Power of any right or power conferred on Western Power under any agreement, deed or document or by law;
- (vi) **(invalidity)**: any actual or potential invalidity, unenforceability, illegality or irrecoverability of any agreement, deed or document or consent or any payment made or due to Western Power under any agreement for any reason;
- (vii) **(incapacity)**: any incapacity or absence of power or authorisation of, or other fact relating to, any person in connection with the execution of any agreement, deed or document or otherwise, including any change in the constitution or membership of any person; or
- (viii) **(residual)**: any other breach, default, waiver or fact which, except for this provision, might legally operate:
 - (A) to release or discharge or have any prejudicial effect on; or
 - (B) in any manner to release or discharge the Guarantor from performance of, or limit or provide a defence to any legal action to enforce,this Guarantee, or any liability of the Guarantor under or in connection with this Guarantee.

(e) Termination

The Guarantor is not entitled to terminate or limit this Guarantee, or any liability of the Guarantor under this Guarantee, until the Secured Moneys have been paid in full.

(f) Governing Law

This Guarantee is governed by and construed under the law of the State of Western Australia.

(g) General

(i) Continuing Security

This Guarantee is a continuing security and is not wholly or partially discharged by the payment at any time of any Secured Moneys, settlement of account or other fact and applies to the balance of the Secured Moneys at any time until a final termination of this Guarantee by Western Power.

(ii) Further Assurance

The Guarantor must upon request by Western Power at any time execute any document and perform any action necessary to give full effect to this Guarantee, whether prior or subsequent to performance of this Guarantee.

(iii) Waivers

Any failure or delay by Western Power to exercise any right or power under this Guarantee does not operate as a waiver and the single or partial exercise of any right or power by Western Power does not preclude any other or further exercise of that or any other right or power by Western Power.

Appendix C.1 – Contributions Policy

September 2011



Contributions Policy

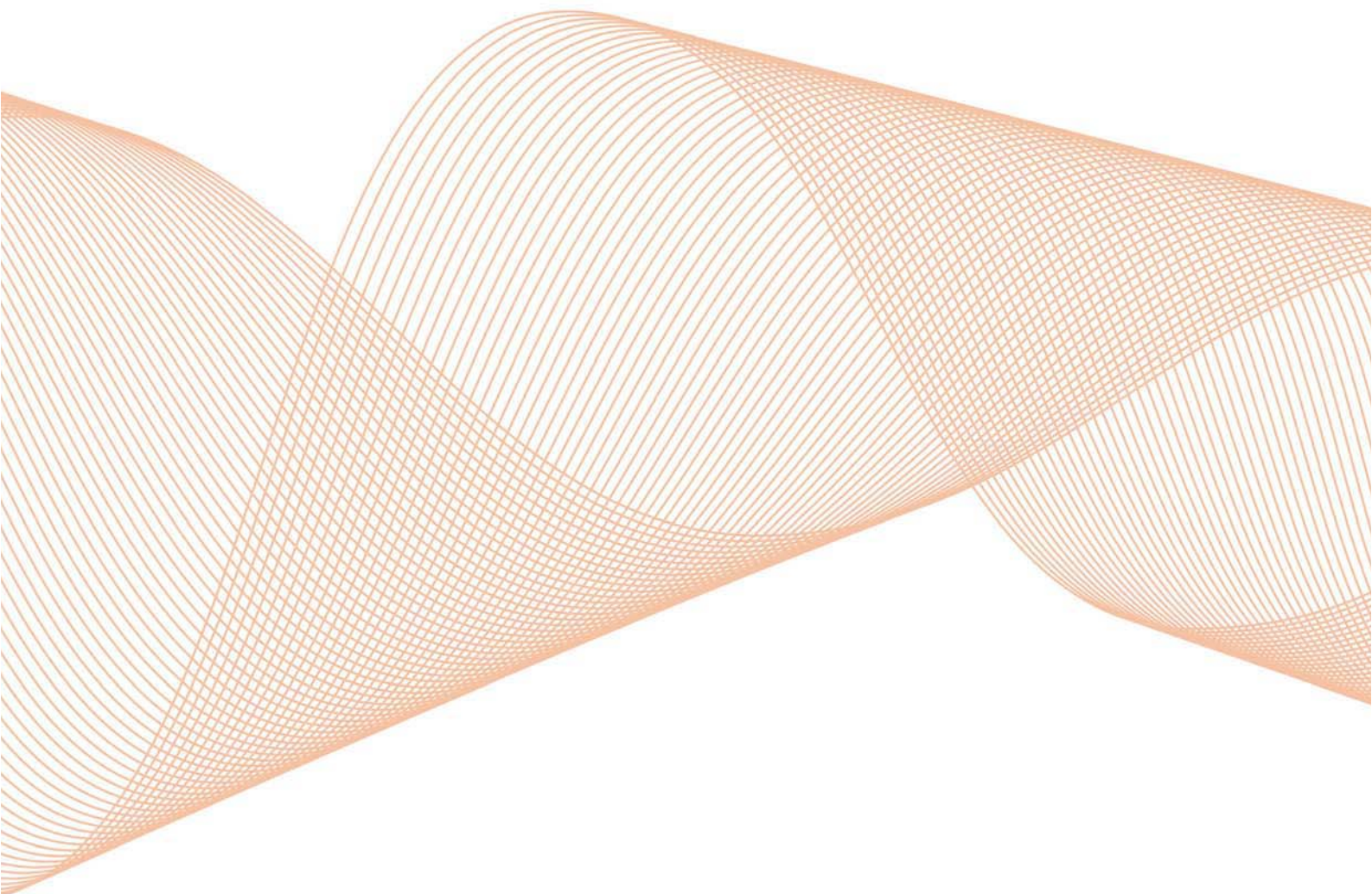


ELECTRICITY NETWORKS CORPORATION ("WESTERN POWER")

ABN 18 540 492 861

{Outline: This contributions policy is included in Western Power's access arrangement in accordance with section 5.1(h) of the Code.}

{Note: This policy has been prepared in accordance with the requirements of the Electricity Networks Access Code 2004.}



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1. Introduction

1.1. Definitions

In this *contributions policy*, unless the contrary intention is apparent:

“access arrangement” means the current *access arrangement* approved in respect of the *network* under the *Code*.

“access contract” has the same meaning given to "access agreement" in the *Code*.

{Note: Under the *Code* "access agreement" has the meaning given to it in part 8 of the *Act*, and under section 13.4 (d) of the *Code* includes a "*deemed access contract*". The definition of **“access agreement”** under the *Act* is "an agreement under the *Code* between a network service provider and another person (a "network user") for that person to have access to services".}

“Act” means the *Electricity Industry Act 2004*.

“additional revenue” has the same meaning as given to it in the *Code*.

{Note: Under the *Code* "additional revenue" has the meaning given to it in section 6.42 of the *Code* when used in section 6.41 of the *Code*.}

“adjusted capacity requirement” means the capacity requirement determined in accordance with clause 6.3(a) with respect to a *connection application*.

“alternative options” means alternatives to part or all of a *network* enhancement, including demand-side management and generation solutions (such as distributed generation) either instead of or in combination with a *network* enhancement.

“alternative option contribution” means a contribution made, or to be made, by an *applicant* in respect of an *alternative option*.

“alternative option test”, in respect of the *network*, means the test set out in section 6.41 of the *Code*.

“anticipated incremental revenue” has the same meaning given to it in the *Code*.

{Note: Under the *Code* "anticipated incremental revenue" for a new facility means "the present value (calculated at the *rate of return* over a reasonable period) of the increased *tariff* income reasonably anticipated to arise from the increased sale of *covered services* on the network to one or more users (where "increased sale of *covered services*" means sale of *covered services* which would not have occurred had the *new facility* not been commissioned),

minus

the present value (calculated at the *rate of return* over the same period) of the best reasonable forecast of the increase in *non-capital costs* directly attributable to the increased sale of the covered services (being the covered services referred to in the expression "increased sale of *covered services*" in paragraph (a) of this definition)".}

“Appendix 8 work” has the same meaning given to it in the *Code*.

{Note: Under the *Code* "appendix 8 work" means "work in connection with the *Western Power Network* of a type specified in clause 8.2 of appendix 8".}

“applicant” means a person (who may be a *user*, a *customer* or a *developer*) who has lodged, or intends to lodge, a *connection application*, and includes a person who does so on behalf of another person.

“applications and queuing policy” means the applications and queuing policy (as defined in the *Code*) in the *access arrangement*.

“augmentation” has the same meaning as given to it in the *Code*.

{Note: Under the *Code* "augmentation" in relation to a *covered network*, means "an increase in the capability of the *covered network* to provide *covered services*".}

“Authority” has the same meaning as given to it in the *Code*.

{Note: Under the *Code* "Authority" means the Economic Regulation Authority established by the *Economic Regulation Authority Act 2003*.}

“bidirectional point” has the same meaning given to it in the *applications and queuing policy*.

{Note: Under the *applications and queuing policy* "bidirectional point" means "a single, indivisible (except as allowed under this applications and queuing policy) point, that for purposes under the access arrangement involving the transfer of electricity, is deemed to consist of a single attachment point, connected or to be *connected* to a user's connection point, with a single meter (regardless of the actual configuration of network assets making up the *bidirectional point*), at which electricity is to be transferred into and out of the network".}

“bidirectional service” means a *covered service* provided by Western Power at a *connection point* under which the *user* may transfer electricity into and out of the *network* at the *connection point*.

“capital contribution” has the same meaning given to it in the *Code*.

{Note: Under the *Code* "capital contribution" means "a payment or provision in kind made, or to be made, by a *user* in respect of any *new facilities investment* (or *forecast new facilities investment*) in *required work*".}

“Code” means the *Electricity Networks Access Code 2004* (as amended).

“connect” has the same meaning given to it in the *Code*.

{Note: Under the *Code* "connect" means "to form a physical link to or through a *network*".}

“connection application” means an application lodged with Western Power under the *applications and queuing policy* that has the potential to require a modification to the *network*, including an application to:

- (a) *connect facilities and equipment* at a new *connection point*; or

- (b) increase *consumption* or *generation* at an existing *connection point*; or
- (c) materially modify *facilities and equipment connected* at an existing *connection point*; or
- (d) augment the *network* for any other reason,

{Note: this might be, for example, to service a subdivision.}

and includes any additional information provided by the *applicant* in regard to the application.

“connection assets” has the same meaning given to it in the *Code*.

{Note: Under the *Code* "connection assets" for a *connection point*, means "all of the *network assets* that are used only in order to provide *covered services* at the *connection point*".}

“connection point” means an *exit point* or an *entry point* or a *bidirectional point* identified or to be identified as such in an *access contract*.

“consume” has the same meaning given to it in the *Code*.

{Note: Under the *Code* "consume" means "to consume electricity".}

“consumption”, for a *connection point*, means the amount of electricity *consumed* at the *connection point*, and is measured in Watt-hours.

“contracted capacity” means the maximum rate at which a *user* is permitted to transfer electricity at a *connection point* under the *user’s access contract*.

“contribution” has the same meaning given to it in the *Code*, but also includes an *alternative option contribution*.

{Note: Under the *Code* "contribution" in relation to a *covered network*, means “a *capital contribution*, a *non-capital contribution* or a *headworks charge*”.

“contributions policy” has the same meaning given to it in the *Code*.

{Note: Under the *Code* "contributions policy" means “a policy in an *access arrangement* under section 5.1(h) dealing with *contributions* by users”.

“contributions rate of return” means the rate of return most recently approved by the *Authority* for use in *price control* for the *network*.

“covered service” has the same meaning given to it in the *Code* but also includes a *bidirectional service*.

{Note: Under the *Code* "covered service" means "a service provided by means of a *covered network*, including:

- (a) a *connection service*; or
- (b) an *entry service* or *exit service*; or
- (c) a *network use of system service*; or
- (d) a *common service*; or
- (e) a *service* ancillary to a *service* listed in paragraph (a) to (d) above,

but does not include an *excluded* service".}

“cpi” means the “all capitals consumer price index” as defined by the Australian Bureau of Statistics.

“customer” has the meaning given to it in the *Act*.

“distribution low voltage connection scheme” means the scheme described in clause 7 of this *contributions policy*.

“distribution low voltage connection scheme application” means a *connection application* where:

- (a) the proposed *connection point* is to the *distribution system low voltage network* and is within 25 kms of the *relevant zone substation*, and
- (b) the *applicant’s* required electrical capacity is in excess of:
 - (i) the original design capacity for a greenfield development on an existing electricity serviced lot as determined by Western Power's policies and procedures from time to time, or
 - (ii) the existing capacity in respect of the relevant *connection point* for a brownfield development.

“distribution low voltage connection scheme base charge” means the value determined in accordance with section 7.3 of this *contributions policy*.

“distribution low voltage connection scheme contribution” means a *contribution* in respect of the *distribution low voltage connection scheme*.

“distribution low voltage connection scheme works” with respect to a *distribution low voltage connection scheme application*, means *works* on the *distribution system* reasonably adjacent to the *connection point* (to which the *distribution low voltage connection scheme application* relates) that directly provides for delivery of electricity capacity to that *connection point* and that may include switchgear, *HV* cable, transformers, *low voltage* cable and ancillary equipment.

“distribution system” has the same meaning given to it in the *Code*, but excludes equipment within zone substations used for the transportation of electricity at nominal voltage of less than 66 kV.

{Note: Under the *Code* "distribution system" means “any apparatus, equipment, plant or buildings used, or to be used, for, or in connection with, the transportation of electricity at nominal voltages of less than 66 kV.”}

“entry point” has the same meaning given to it in the *applications and queuing policy*.

{Note: Under the *applications and queuing policy* "entry point" means "a single, indivisible (except as allowed under this *applications and queuing policy*) point, that for purposes under the *access arrangement* involving the transfer of electricity, is deemed to consist of a single *attachment point*, connected to or to be connected to a *user's connection point*, with a single *meter* (regardless of the actual configuration of *network assets* making up the entry point), at which electricity is more likely to be transferred into the *network* than out of the *network*".}

"entry service" has the same meaning given to it in the *applications and queuing policy*.

{Note: Under the *applications and queuing policy* "entry service" means "a *covered service* provided by Western Power at a *connection point* under which the *user* may transfer electricity into the *network* at the *connection point*".}

"exit point" has the same meaning given to it in the *applications and queuing policy*.

{Note: Under the *applications and queuing policy* "exit point" means "a single, indivisible (except as allowed under this *applications and queuing policy*) point, that for purposes under the *access arrangement* involving the transfer of electricity, is deemed to consist of a single *attachment point*, connected to or to be connected to a *user's connection point*, with a single *meter* (regardless of the actual configuration of *network assets* making up the entry point), at which electricity is more likely to be transferred out of the *network* than into the *network*".}

"exit service" has the same meaning given to it in the *applications and queuing policy*.

{Note: Under the *applications and queuing policy* "exit service" means "a *covered service* provided by Western Power at a *connection point* under which the *user* may transfer electricity out of the *network* at the *connection point*".}

"facilities and equipment" has the same meaning given to it in the *Code*.

{Note: Under the *Code*, "facilities and equipment" in relation to a *connection point*, means "the apparatus, equipment, plant and buildings used for or in connection with *generating, consuming* and *transporting* electricity at the *connection point*".}

"feeder diversity factor" means the factor applied to the *capacity requirement* that reflects the effective contribution of the *connection capacity* to the feeder peak load.

"forecast costs" means any or all of the *forecast new facilities investment* or the *forecast alternative option costs*, as applicable, to be incurred by Western Power with regards to *works*.

"forecast new facilities investment" has the same meaning given to it in the *Code*.

{Note: Under the *Code* "forecast new facilities investment" for a *covered network* means "the capital costs forecast to be incurred in developing, constructing and acquiring new *network assets* for the *covered network*".}

"generation", for a *connection point*, means the amount of electricity *generated* at the *connection point*, and is measured in kilowatts.

"good electricity industry practice" has the same meaning given to it in the *Code*.

{Note: Under the *Code* "good electricity industry practice" means "the exercise of that degree of skill, diligence, prudence and foresight that a skilled and experienced person would reasonably and ordinarily exercise under comparable conditions and circumstances consistent with applicable *written laws* and *statutory instruments* and applicable recognised codes, standards and guidelines".}

“low voltage” means the low voltage level of the *distribution system network* where the voltage is less than 1 kV.

“headworks” means enhancements required to the existing *HV* three-phase *distribution system* that provides for an increase in capacity of that system.

“headworks charge” has the same meaning given to it in the *Code*.

{Note: Under the *Code* "headworks charge", in respect of a *headworks scheme*, means "the amount payable by a user to a service provider under the *headworks scheme* in respect of a *connection point*".}

“headworks scheme” means the scheme described in clause 6 of this *contributions policy*.

“HV” means the high voltage level of the distribution network where the voltage is greater than 6 kV and less than 66 kV.

“minimum practical works” with regard to *covered services* sought by an *applicant*, means the minimum *works* Western Power must undertake, acting efficiently in accordance with *good electricity industry practice*, to provide only those *covered services* required by that *applicant*.

“mixed zone” has the meaning given to it in section 4.3 of the *price list information* in the *access arrangement*.

“network” has the meaning given to “Western Power Network” in the *Code*.

{Note: Under the *Code* "Western Power Network" means "the *covered network* that is *covered* under section 3.1". The "Western Power Network" is the portion of the SWIN that is owned by the Electricity Networks Corporation.}

“network assets” has the same meaning given to it in the *Code*.

{Note: Under the *Code* "network assets", in relation to a *network* means "the apparatus, equipment, plant and buildings used to provide or in connection with providing *covered services* on the *network*, which assets are either *connection assets* or *shared assets*".}

“new facilities investment” has the same meaning as given to it in the *Code*.

{Note: Under the *Code* "new facilities investment" means "for a new facility, means the capital costs incurred in developing, constructing and acquiring the new facility".}

“new facilities investment test” has the same meaning as given to it in the *Code*.

{Note: Under the *Code* "new facilities investment test" means "in respect of a covered network, means the test set out in section 6.52".}

“new revenue” means the *anticipated incremental revenue* or *additional revenue* or both, as applicable, with respect to *works*.

“nominated capacity requirement” means the capacity requirement nominated under clause 6.4 in a *connection application* with respect to that *connection application*.

“non-capital contribution” means a payment or provision in kind made, or to be made, by a *user* in respect of any *non-capital costs* (or forecast *non-capital costs*) of *required work*.

“non-capital costs” means the *non-capital costs* (as defined in the *Code*), but excluding *alternative option costs*, to be incurred by Western Power with regards to *works*.

“price components” means the price components in clause 6.8.

“price control” has the same meaning as given to it in the *Code*.

{Note: Under the *Code* "price control" means the provisions in an *access arrangement* under section 5.1(d) and Chapter 6 of the *Code* which determine *target revenue*.}

“price list information” has the same meaning given to it in the *Code*.

“reasonable and prudent person” means a person acting in good faith and in accordance with *good electrify industry practice*.

“reasonable time” means the time determined in accordance with clause 5.3.

“relevant area” with respect to *connection applications* in relation to the *distribution system* means any area where the *relevant connection point* is located at a distance along the line feeder route equal to or greater than 25 km from the *relevant zone substation* within the *network* in the *rural zone* or *mixed zone*.

“relevant connection point” means, with respect to a *connection application*, the appropriate *connection point* as determined under clause 6.5.

“relevant distribution transformer” with respect to the *distribution low voltage connection scheme* and a *connection application* means the transformer from which the new or upgraded *connection* (to which that *connection application* relates) will be supplied under normal system operating conditions.

“relevant zone substation” means the zone substation to which the new or upgraded *connection* will be connected under normal system operating conditions.

“required work” means *work* which is necessary in order to provide a *covered service* sought in a *connection application*.

“retailer” has the meaning given to it in the *Act*.

“rural zone” has the meaning given to it in section 4.3 of the *price list information* in the *access arrangement*.

“scheme” has the same meaning as given to it in Appendix 8 of the *Code*.

“service provider” has the same meaning given to it in the *Code*.

{Note: Under the *Code* "service provider" in relation to a *network* means "a person who owns or operates the *network*".}

“shared assets” has the same meaning given to it in the *Code*.

{Note: Under the *Code* "shared assets" means "those *network assets* which are not *connection assets*".}

“SWIS” has the meaning given to it in the *Code*.

{Note: Under the *Code* "SWIS" has the meaning as given to it in the Act, being "the interconnected transmission and distribution systems, generating works and associated works -

- (a) located in the South West of the State and extending generally between Kalbarri, Albany and Kalgoorlie; and
- (b) into which electricity is supplied by -
 - (i) one or more of the electricity generation plants at Kwinana, Muja, Collie and Pinjar; or
 - (ii) any prescribed electricity generation plant".}

“technical rules” means the *technical rules* (as defined in the *Code*) applying from time to time to the *network* under Chapter 12 of the *Code*, as modified in accordance with the *Code*.

“transmission system” has the same meaning given to it in the *Code*, but also includes equipment within zone substations used for the transportation of electricity at nominal voltage of less than 66 kV.

“user” has the same meaning given to it in the *Code*.

{Note: Under the *Code* "user" means "a person, including a *generator* or a *consumer*, who is a party to an [*sic.*] contract for services with a *service provider*, and under section 13.4(e) includes another *business* as a party to a *deemed access contract*".}

“works” includes *headworks* and *distribution low voltage connection scheme works* and all works required to be undertaken to provide an *applicant* with the *covered services* sought by the *applicant* in a *connection application*, including works associated with:

- (a) *augmentation of connection assets*;
- (b) *augmentation of shared assets*;
- (c) *alternative options*; and
- (d) other non-capital works.

1.2. Interpretation

(a) Unless the contrary intention is apparent:

- (i) a rule of interpretation in the *Code*; and
- (ii) the Interpretation Act 1984,

apply to the interpretation of this *contributions policy*.

(b) Unless:

- (i) the *contrary* intention is apparent: or
- (ii) the term has been redefined in clause 1.1,

a term with a defined meaning in the *Code* has the same meaning in this *contributions policy*.

2. Application of this contributions policy

- (a) Subject to (b), and (c) below, this *contributions policy* applies if it is necessary for Western Power to perform *works* to provide *covered services*.
- (b) If the *works* required for Western Power to provide the *covered services* sought by an *applicant* are *Appendix 8 works*, then the *contribution* for those *works* is the amount determined under and in accordance with Appendix 8 of the *Code*. For the avoidance of doubt, any such *contribution* is to be paid in addition to any *contribution* payable under this *contributions policy*.
- (c) An *applicant* is required to pay a *contribution* for *works* in any (including any combination of) the following circumstances:
 - (i) in the case of *new facilities investment*, where the capital costs incurred in relation to the relevant *works* do not satisfy the *new facilities investment test*;
 - (ii) in the case of *works* related to *alternative options*, where the *non-capital costs* associated with such *works* do not satisfy the requirements of clause 6.41(b) of the *Code*;
 - (iii) in the case of *non-capital works* including *alternative options*, where the costs of the *works* were not included, and could not reasonably have been included, in forecasts of *non-capital costs* taken into account in setting the *price control*,
 - (iv) where the *works* meet the requirements of clause 6 of this *contributions policy* (*distribution headworks scheme*),
 - (v) where the *works* meet the requirements of clause 7 of this *contributions policy* (*distribution low voltage connection scheme*).

3. Lowest sustainable cost

A *contribution* with respect to *covered services* sought by an *applicant* must not exceed the amount that would be required by a prudent *service provider* acting efficiently, in accordance with *good electricity industry practice* seeking to achieve the lowest sustainable cost of providing the *covered services*.

4. Applicant must make contribution

4.1. Applicant must make contribution

- (a) Subject to paragraph (b) of this clause 4.1, if the application of this *contributions policy* in relation to the *works* produces a *contribution* amount that is greater than zero, Western Power is not required to undertake the *works* in respect of a *connection application* for a *covered service* until the *applicant* enters into a contract with Western Power under which the *applicant* agrees to provide the *contribution*, including any GST liability, to Western Power in accordance with this *contributions policy*:
- (b) If the work *falls* within the class of *headworks*, Western Power must undertake and fund the *work* whether or not the *work* is a *required work*. This does not excuse the *applicant* from any obligations to make a *contribution* under this *contributions policy*.

4.2. Payment of GST

The payment of a *contribution* may be subject to GST and, if so, Western Power will request a *customer* to pay an additional amount equal to Western Power's GST liability. Western Power may request payment of this additional amount at the time Western Power's GST liability arises.

4.3. Applicant must provide security for new revenue

- (a) Where the *forecast costs* with respect to a *connection application* are greater than \$50,000, but less than \$15,000,000, Western Power may require the *applicant* to procure before the commencement of the *works*, and maintain for a period of 18 months after the commencement of the associated *exit service*, *entry service*, or *bidirectional service*, an unconditional, irrevocable bank guarantee, or equivalent financial instrument, in terms acceptable to Western Power (acting as a *reasonable and prudent person*), guaranteeing the portion of *new revenue* that was used to calculate the *contribution* and is expected to come from providing an *exit service*, *entry service*, or *bidirectional service* using the *works*.
- (b) Where an *applicant* has provided security under clause 4.3(a), then after 12 months, Western Power may:
 - (i) re-determine the *contribution* under this *contributions policy*, and recover from, or rebate to, the *applicant* any difference from the amount of the original *contribution*; or
 - (ii) require the *applicant* to maintain the bank guarantee or equivalent financial instrument for a further 12 months before re-determining the *contribution* in accordance with clause 4.3(b)(i).

- (c) Where the *forecast costs* with respect to a *connection application* are equal to or greater than \$15,000,000, Western Power may require the applicant to procure before the commencement of the *works*, an unconditional, irrevocable bank guarantee, or equivalent financial instrument, in terms acceptable to Western Power (acting as a *reasonable and prudent person*), guaranteeing the portion of *new revenue* that was used to calculate the *contribution* and is expected to come from providing an *exit service, entry service, or bidirectional service*, using the *works*.

5. Amount of Contribution

5.1. Interpretation

- (a) For the avoidance of doubt, this clause 5 is to be read subject to the provisions of clauses 2, 6 and 7 of this *contributions policy*.
- (b) For the purposes of this clause 5: -
- (i) the definition of '*new facilities investment test*' is that set out in section 6.52 of the *Code*, but without having regard to subsection 6.52(b)(i) thereof; and
 - (ii) the definition of '*alternative option test*' is that set out in section 6.41 of the *Code*, but without having regard to subsection 6.41(b)(i) thereof.

5.2. Calculation of *contribution*

The *contribution* payable in respect of any *works* to which this *policy* applies is calculated by:

- (a) determining the appropriate portion of any of the *forecast costs* of the *works* (excluding *headworks* with respect to the *headworks scheme* and *distribution low voltage connection scheme works* but including any *works* relating to a *distribution low voltage connection scheme application* excluded from clause 7 by clause 7.5) which do not meet the *new facilities investment test* (excluding, to avoid doubt, the incremental revenue test as per section 6.52 (b)(i)A of the *Code*) or the *alternative option test* (as applicable) to allocate to the *applicant* under clause 5.4;
- (b) adding any applicable amount calculated under clause 6.3 (*distribution headworks contribution*),
- (c) adding any applicable amount calculated under clause 7.3 (*distribution low voltage connection scheme base charge*), and
- (d) adding any applicable amount calculated under clause 8.4(a),
- (e) deducting the amount likely to be recovered in the form of *new revenue* gained from providing *covered services* to the *applicant*, or, if the *applicant* is a *customer*, to the *customer's retailer*, as calculated over the *reasonable time*, at the *contributions rate of return*; and
- (f) adding any applicable amount calculated under clauses 8.1, 8.2, 8.3 and 8.5.

5.3. Reasonable time

For the purposes of this *contributions policy*, the *reasonable time* is to be determined by Western Power, as a *reasonable and prudent person*, having regard to:

- (a) the anticipated commercial life of the *works*, up to a maximum of 15 years; and
- (b) the purpose for which the *applicant* requires the *covered services*.

{Note: For example, if the *applicant* is proposing to build a plant with an expected 5 year operating life, then the *reasonable time* might be 5 years or less.}

5.4. Amount of forecast costs

- (a) Western Power may, acting as a *reasonable and prudent person*, determine that the amount of the *forecast costs* to be allocated to the *applicant* for the purposes of clause 5.2 (a) is:
 - (i) the full amount of the *forecast costs*; or
 - (ii) an amount determined under clauses 5.4(b) to 5.4(e).
- (b) If Western Power chooses to undertake *works* in excess of the *minimum practical works* to provide *covered services* sought by an *applicant*, then Western Power will determine that the amount of costs allocated to the *applicant* are the *forecast costs* of the *minimum practical works*.
- (c) If:
 - (i) Western Power reasonably expects to receive *tariff* income from future *applicants*, because of *works* to provide *covered services* sought by an *applicant*, within a period of 10 years, (or such longer period as reasonably determined by Western Power acting as a *reasonable and prudent person*), of the original *applicant's connection application*; or
 - (ii) an *applicant* seeks a *covered service* that will make use of *works* undertaken to provide *covered services* to a previous *applicant*, within a period of 10 years, (or such longer period as reasonably determined by Western Power under clause 5.4(c)(i)), of the original *applicant's connection application*, and for which the original *applicant* paid a *contribution* calculated under clause 5.4(c)(i);

then Western Power will apportion the costs based on the relative use of the *works* by the *applicant* compared to the relative use of the *works* expected to be sought by those future *applicants*, or the relative use of the *works* sought by previous *applicants*, or both, as applicable.

- (d) If Western Power has received more than one *connection application* requiring the same *works*, then Western Power may negotiate with the *applicants* under the *applications and queuing policy* to apportion the *forecast costs* of the *works* between the *applicants*, based on the relative use of the *works* sought by each *applicant*.

- (e) If *works* to provide *covered services* to an *applicant* provide specific savings to Western Power in performing its legal obligations, then Western Power will determine that the costs to be allocated to the *applicant* are the *forecast costs* less the amount saved.

6. Distribution headworks scheme

The methodology used to develop the distribution headworks prices that apply in this distribution headworks scheme is described in Appendix C of this Access Arrangement.

6.1. Application

This headworks scheme applies to:

- (a) the class of *works* falling within the definition of *headworks* in this *policy*; and
- (b) the class of *users* who make a *connection application* in relation to the *distribution system* within a *relevant area*.

6.2. Headworks contribution

- (a) If,
 - (i) in accordance with good electricity practice, Western Power reasonably considers that the forecast costs of *headworks* required for a *relevant area* over a 25 year period exceeds the amount of *new revenue* likely to be gained from providing *covered services* to *applicants* over that period, and
 - (ii) the *relevant connection point* is less than 160 kms from the *relevant zone substation* and the *nominated capacity requirement* is less than 2,000 kVA, or the *relevant connection point* is greater than 160 kms from the *relevant zone substation* and the *nominated capacity requirement* is less than 1,000 kVA,

then, upon receiving a *connection application* in relation to a *relevant area*, Western Power will, in accordance with this clause 6, require a *headworks contribution* from the *applicant*.

- (b) Where a *headworks contribution* is made by an applicant in accordance with clause 6.2(a) no further *contribution* shall be required from the *applicant* in relation to *headworks*.
- (c) For the purpose of this *contributions policy* the *headworks contribution* is a *capital contribution*.

6.3. Calculation of the headworks contribution

A *headworks contribution* for a *connection application* is calculated by:

- (a) determining the *adjusted capacity requirement* with respect to the *connection application* in accordance with clause 6.4;

- (b) determining the distance from the *relevant connection point* to the *relevant zone substation* in accordance with clause 6.6;
- (c) determining the *relevant voltage* in accordance with clause 6.7, and
- (d) applying the parameters determined under 6.3(a) and (b) to the applicable *price components*, with respect to the *relevant voltage* determined under 6.3(c).

6.4. Adjusted capacity requirement

The adjusted capacity requirement is determined by multiplying the nominated capacity requirement, by the relevant feeder diversity factor identified in the table below:

Connection Type	Feeder Diversity Factor
Residential	60%
Commercial	50%

6.5. Relevant connection point

The *relevant connection point* is:

- (a) for an application for *connection* to the *HV* single-phase *network*, the point on the three-phase *HV* network to which the single-phase line is connected. The length of any single-phase line is not taken into account;
- (b) for an application for *connection* to the low voltage 240-volt *network*, the *HV* terminals of the transformer with respect to the *connection application*. Where the transformer is connected to the single-phase network, the *relevant connection point* is that determined under paragraph (a); and
- (c) for a *connection application* that requires an extension to the three-phase *HV network*, the point on the existing three-phase *HV network* to which the new extension is made.

6.6. Determination of the distance to the relevant connection point from the relevant zone substation

The distance from the *relevant connection point* to the *relevant zone substation* is the shortest length of three-phase *network* line connecting those two points.

6.7. Relevant voltage

The *relevant voltage* with respect to a *connection application* is:

- (a) for an application for *connection* to the *HV* single-phase *network*, the voltage at the point on the three-phase *HV network* to which the single-phase line is connected;
- (b) for an application for *connection* to the *HV* three-phase *network*, the voltage at the point of connection on the three-phase *HV network*; and

- (c) for an application for *connection* to the low voltage 240-volt *network*, the voltage at the *HV* terminals of the transformer with respect to the *connection application* determined under paragraphs (a) or (b) whichever is applicable.

6.8. Price components for calculation of headworks contribution

- (a) The price components comprise two parts, being:
 - (i) a price based on the capacity sought in terms of \$ per kVA; and
 - (ii) a price based on the capacity sought and the distance from the *relevant zone substation* to the *relevant connection point*, less 25 kms, in terms of \$ per kVA.km,
- (b) Separate prices will be determined for 22 kV connections and 33 kV connections.

7. Distribution low voltage connection scheme

7.1. Application

Subject to clause 7.5 this *distribution low voltage connection scheme* applies to a *connection applicant* that falls within the class of *applicant* that may make a *distribution low voltage connection scheme application* and where the *works* required to meet the requirements of the *connection application* of that *connection applicant* are *distribution low voltage connection scheme works*.

7.2. Distribution low voltage connection scheme contribution

- (a) If, in accordance with *good electricity industry practice*, Western Power reasonably considers that the forecast costs of *distribution low voltage connection scheme works* (required to meet the requirements of the *connection application* of a *connection applicant*) over a 15 year period exceed the amount of *new revenue* likely to be gained from providing *covered services* using those *distribution low voltage connection scheme works* to *distribution low voltage connection scheme applicants* over that period, then, upon receiving the *distribution low voltage connection scheme application* of that *connection applicant*, Western Power will, in accordance with this clause 7, require a *distribution low voltage connection scheme contribution* from the *applicant*.
- (b) Where a *distribution low voltage connection scheme contribution* is made by an *applicant* no further *contribution* shall be required from the applicant for the *distribution low voltage connection scheme works* for which that *distribution low voltage connection scheme contribution* was made.
- (c) For the purpose of this *contributions policy* a *distribution low voltage connection scheme contribution* is a *capital contribution*.

7.3. Determination of the distribution low voltage connection scheme base charge

The *distribution low voltage connection scheme base charge* is determined by:

- (a) identifying the *applicant's* incremental electrical capacity requirement by deducting from the *applicant's* required electrical capacity:

- (i) the original design capacity for a greenfield development on an existing electricity serviced lot as determined by Western Power's policies and procedures from time to time, or
 - (ii) the existing capacity in respect of the relevant connection point for a brownfield development.
- (b) determining whether the location of the *connection point* (to which the *connection application* relates) is on a land lot separate from the *relevant distribution transformer*, and
- (c) applying the parameters determined under 7.3(a) and 7.3(b) to the prices determined in clause 7.4.

7.4. Distribution low voltage connection scheme prices

The methodology used to develop the *distribution low voltage connection scheme* prices is described in Appendix C (Distribution Low Voltage Connection Scheme Methodology) of this Access Arrangement.

- (a) The *distribution low voltage connection scheme* price is expressed as \$ per kVA.
- (b) The *distribution low voltage connection scheme* prices will vary depending on:
 - (i) whether the incremental capacity requirement at the *connection point* determined under clause 7.3 (a) is:
 - (A) less than 216 kVA or
 - (B) between 216 kVA and 630 kVA or
 - (C) greater than 630 kVA, and
 - (ii) whether the location of the *connection point* is on a land lot separate from the *relevant distribution transformer*.

7.5. Exclusion from distribution low voltage connection scheme

The methodology used to develop the distribution low voltage connection scheme exclusion threshold is described in Appendix C (Distribution Low Voltage Connection Scheme Methodology) of this Access Arrangement.

A distribution low voltage connection scheme application is excluded from the provisions of this clause 7 where the forecast costs of works (as determined assuming clause 5.4 applies to those works) is in excess of the distribution low voltage connection scheme base charge plus the exclusion threshold. For the purposes of applying this clause 7.5, only the cost of those works which would otherwise fall within the distribution low voltage connection scheme apply.

Where a *distribution low voltage connection scheme application* is excluded, the *contribution* is determined under this *contributions policy* excluding the provisions of this clause 7.

8. General provisions

For the avoidance of doubt, this clause 8 is to be read subject to the provisions of clause 2 of this *contributions policy*.

8.1. Connection assets

The *applicant* must pay the full *forecast costs* of any *works* to provide *connection assets*.

8.2. Non-capital costs

The *applicant* must pay to Western Power the full amount of any *non-capital costs* that Western Power incurs in performing *works*, which in any case must not exceed such costs that would be incurred by a prudent *service provider* acting efficiently in accordance with *good electricity industry practice*.

{Note: these costs might include, for example, adjusting protection settings, reprogramming computer equipment and so on.}

8.3. Works over and above standard works

If an *applicant* seeks a *covered service* that is better or different in some respect than an equivalent *service* in the *technical rules* or an equivalent *reference service* in the *access arrangement*, then the *applicant* must pay to Western Power:

- (a) a *contribution* calculated under this *contributions policy* for the equivalent *service*; and
- (b) the difference between the *forecast costs* of the *works* required to provide the equivalent *service* and the *forecast costs* of the *works* required to provide the better or different *service*, to the extent that the better or different *service* does not otherwise meet those parts of the *new facilities investment test* dealing with *net benefit*, safety or reliability.

{Note: this could be, for example, a design philosophy delivering increased security of supply}

8.4. Costs related to *technical rules* compliance

- (a) The *applicant* must pay a *contribution* calculated under this *contributions policy* in respect of any *works* required to upgrade the fault level ratings of *network assets*, or any other *works* required to ensure that Western Power complies with the *technical rules* with respect to the *network assets*.
- (b) The *applicant* must pay all of its own costs in relation to ensuring that its *facilities and equipment* comply with the *technical rules*.

8.5. Temporary supplies

The *contribution* to be paid by an *applicant* who seeks a temporary supply is, if no applicable amount is published on Western Power's website, an amount equal to the full *forecast costs* of the *required works*.

9. Manner of contribution

9.1. Options for payment

A *contribution* may be made:

- (a) by the *applicant* by way of a financial payment comprising either:
 - (i) periodic financial payments, subject to clause 9.2; or
 - (ii) an upfront financial payment;
- (b) by the Western Australian Government under any appropriate government policy, or
- (c) by the *applicant* undertaking the *augmentation* and transferring ownership of the *augmentation*, subject to clause 9.4.

Where the *contribution* is greater than \$1,000,000, the *applicant* and Western Power may negotiate to adjust the *contribution* to reflect actual costs of the *required works* determined after the completion of the *works*. This does not exclude the *applicant* from any obligations to pay a *contribution* under this *contributions policy*.

9.2. When *applicant* may choose periodic payment

The *applicant* may not elect under clause 9.1(a)(i) to make the *contribution* by way of a periodic financial payment unless the total amount of the *contribution* exceeds \$50,000.

9.3. Terms and amount of periodic payment

- (a) If the *applicant* elects to make a *contribution* by way of periodic financial payment under clause 9.2, then:
 - (i) the maximum term over which the periodic payments may be made is 5 years;
 - (ii) interest will be payable on each periodic payment, at a reasonable commercial rate to be negotiated between Western Power and the *applicant*; and
 - (iii) Western Power (acting as a *reasonable and prudent person*) may require the *applicant* to procure an unconditional, irrevocable bank guarantee, or equivalent financial instrument, in terms acceptable to Western Power, guaranteeing the *contribution*.

9.4. Augmentations undertaken by applicants

- (a) An *applicant* may, with Western Power's approval, construct an *augmentation* of the *network*.
- (b) Where an *applicant*, in accordance with (a) above, constructs an *augmentation* of the *network*, the *applicant* shall agree to transfer the ownership of the *augmentation* to Western Power on such reasonable terms and conditions as may be stipulated by Western Power (after Western Power has tested the *augmentation* and certified that it meets the applicable technical standards) but in no circumstance will Western Power become obliged to make any payment to the *applicant* or any other person with respect to the *augmentation*.

{Note: An *applicant* is required to pay to Western Power the fees set by Western Power from time to time associated with Western Power testing the *augmentation* to establish that it meets the applicable technical standards for the *augmentation* to connect to the *network*.}

10. Rebates and recoupment

10.1. This clause 10 does not apply to *contributions* made under clause 6 (*distribution headworks scheme*) or under clause 7 (*distribution low voltage connection scheme*) of this *contributions policy*.

10.2. Parties may negotiate a rebate

- (a) Where:
 - (i) an applicant has paid a contribution, or is paying a contribution in the form of periodic payments, for *works* with respect to a connection point; and
 - (ii) the value of the *contribution* is in excess of \$1,000,000,

then Western Power and the *applicant* may negotiate to require Western Power to provide a rebate in circumstances where a subsequent *applicant* associated with a different *connection point* benefits from the *works* or a part of the *works* in respect of the original *connection point*. The rebate can only be in relation to assets, the costs of which were included in the calculation of the original *contribution* under this *contributions policy*.

- (b) Where:
 - (i) an *applicant* has paid a *contribution*, or is paying a *contribution* in the form of periodic payments, for *works* with respect to a *connection point* for which the full *forecast costs* of the *works* were allocated to the *applicant* under clause 5.4;
 - (ii) at the time that the *works* are carried out, it is only the *applicant* who will benefit from the *works* in relation to that *connection point*; and
 - (iii) the value of the *contribution* is in excess of \$200,000 but less than \$1,000,000;

then Western Power and the *applicant* may negotiate to require Western Power to provide a rebate in circumstances where a subsequent *applicant* associated with a different *connection point* benefits from the *works* or a part of the *works* in respect of the original *connection point*.

(c) Where:

- (i) an *applicant* has paid a *contribution*, or is paying a *contribution* in the form of periodic payments, for *works* with respect to a *connection point* for which the full *forecast costs* of the *works* were allocated to the *applicant* under clause 5.4;
- (ii) at the time that the *works* are carried out, it is only the *applicant* who will benefit from the *works* in relation to that *connection point*;; and
- (iii) the value of the *contribution* is less than or equal to \$200,000;

then Western Power and the *applicant* may negotiate to require Western Power to provide a rebate in circumstances where a subsequent *applicant* associated with a different *connection point* benefits from the *works* or a part of the *works* within 10 years of the date that the *contribution* was paid, or periodic payments of the *contribution* began, in respect of the original *connection point*.

- (d) Any negotiated rebate will be payable to the *customer* or the *user* associated with that *connection point* at the time of the *rebate* being payable.
- (e) The amount of a rebate given to a *user* or *customer* under clause 10.1(c) is determined by apportioning the amortised *contribution* paid in respect of the original *connection point* between the *user* or *customer* associated with the original *connection point* and each subsequent *applicant* based on the relative *contracted capacity* of each party, where the *contribution* is amortised completely in a straight line over 10 years.
- (f) Western Power is not under any obligation to pay any rebate for a *contribution* to any *user* or *customer* under any circumstance other than that expressly provided for under clause 10.2(a), (b) and (c).

10.3. New applicants must pay rebate

Where Western Power must pay a rebate to a *user* or a *customer* in respect of a *connection point* under clause 10.2, each subsequent *applicant* that triggers such a rebate must pay to Western Power an upfront amount equivalent to the rebate.

10.4. Scheme rebates determined under appendix 8 of the Code

Nothing in this clause 10 affects the obligations of Western Power to pay a member of a *scheme* a rebate in accordance with the provisions of appendix 8 of the *Code*.

11. Obligation to provide information

Upon request from an *applicant*, and in respect of a *contribution* for works, Western Power will provide the *applicant* with the following information.

- (a) where the *contribution* is in respect of *new facilities investment*, details of assessment of the *new facilities investment* against the requirements of the *new facilities investment test* and details of the calculation of the amount that does not meet the *new facilities investment test*;
- (b) where the *contribution* is made in respect of *non-capital costs* related to *alternative options*, details of assessment of the *non-capital costs* against the *alternative options test* and details of the calculation of the amount that does not satisfy the *alternative options test*;
- (c) details of assumptions and calculations applied in the apportionment of any forecast cost of works between the *user* or *applicant* and other *users* or *applicants* or Western Power under clause 5.4 of this *contributions policy*;
- (d) details of the calculation of a *headworks* contribution under clause 6 of this *contributions policy*, and
- (e) details of the calculation of a *distribution low voltage connection scheme contribution* under clause 7 of this *contributions policy*.

Appendix C.2 – Distribution Headworks Methodology

September 2011



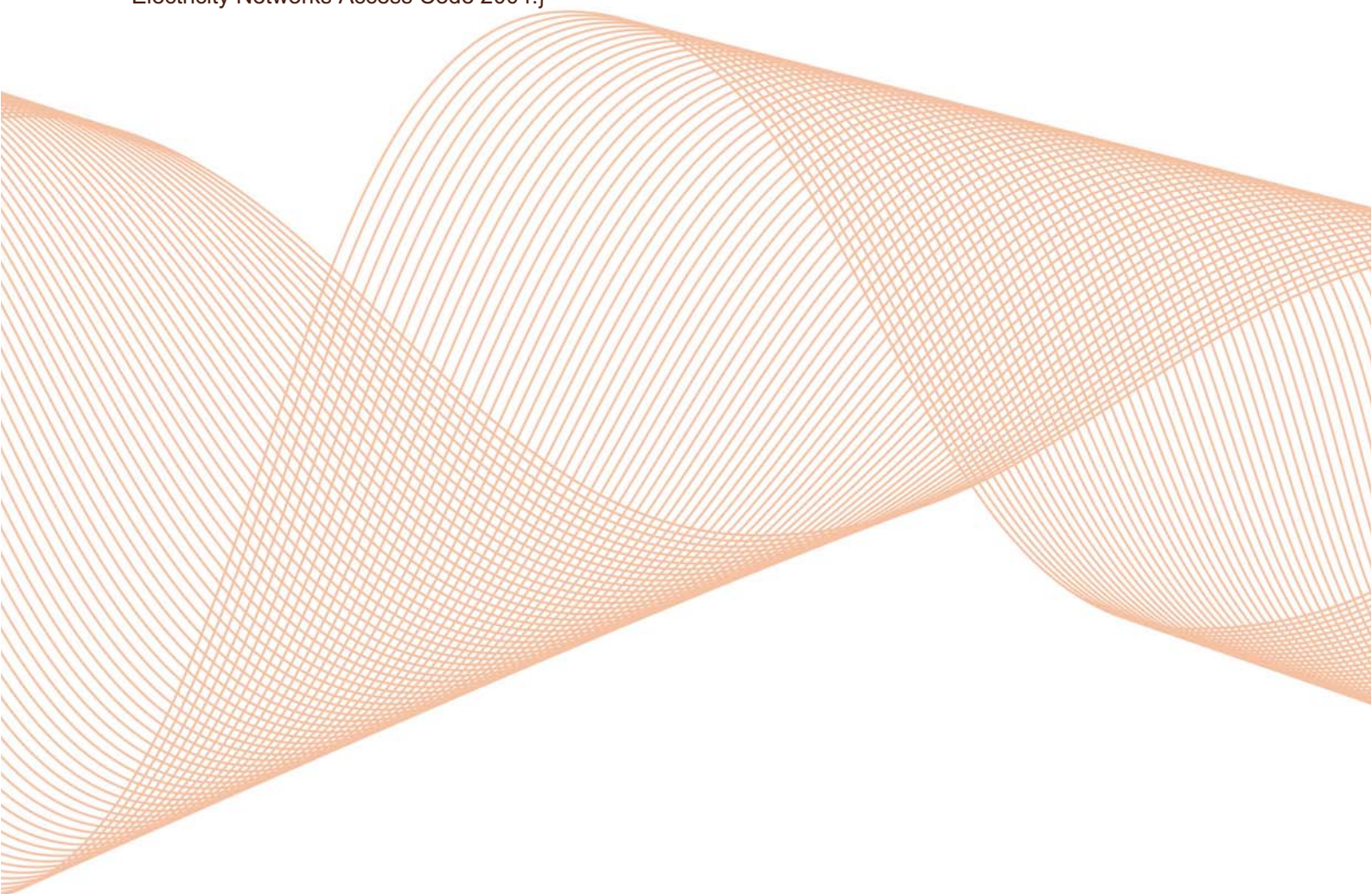
Distribution Headworks Methodology



**ELECTRICITY NETWORKS CORPORATION
("WESTERN POWER")**

ABN 18 540 492 861

{Note: This methodology has been prepared in accordance with the requirements of the Electricity Networks Access Code 2004.}



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1. Definitions

In this headworks methodology the following terms are used and have the same meaning as given in the *contributions policy* or the *Code* (reproduced below for convenience).

“alternative options” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “alternative options” means “alternatives to part or all of a network enhancement, including demand-side management and generation solutions (such as distributed generation) either instead of or in combination with a network enhancement”.

“Code” means the *Electricity Networks Access Code 2004* (as amended).

“connection application” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “connection application” means an application lodged with Western Power under the *applications and queuing policy* that has the potential to require a modification to the *network*.

“connection point” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “connection point” means “an *exit point* or an *entry point* or a bi-directional point identified or to be identified as such in an *access contract*”.

“contributions policy” has the same meaning given to it in the *Code*.

{Note: Under the *Code* “*contributions policy*” means “a policy in an *access arrangement* under section 5.1(h) dealing with *contributions* by users”.

“cpi” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “cpi” means the “all capitals consumer price index” as defined by the Australian Bureau of Statistics.

“customer” has the meaning given to it in the *Act*.

“distribution system” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “distribution system” has the same meaning given to it in the *Code*, but excludes equipment within zone substations used for the transportation of electricity at nominal voltage of less than 66 kV.

“feeder diversity factor” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “feeder diversity factor” means “the factor applied to the *capacity requirement* that reflects the effective contribution of the *connection* capacity to the feeder peak load”.

“forecast costs” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “forecast costs” means “any or all of the *forecast new facilities investment* or the *forecast alternative option costs*, as applicable, to be incurred by Western Power with regards to *works*”.

“headworks” has the same meaning given to it in the *contributions policy*.

{Note under the *contributions policy* “headworks” means “enhancements required to the existing HV three-phase *distribution system* that provides for an increase in capacity of that system”.

“headworks charge” has the same meaning given to it in the *Code*.

{Note: Under the *Code* “headworks charge”, in respect of a *headworks scheme*, means “the amount payable by a *user* to a *service provider* under the *headworks scheme* in respect of a *connection point*”.

“headworks scheme” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “headworks scheme” means the *scheme* described in clause 6 of the *contributions policy*.

“mixed zone” has the same meaning given to it in the *contributions policy*.

{Note” Under the *contributions policy* “mixed zone” has the meaning given to it in section 5.3 of the *price list information* in the *access arrangement*.

“network” has the same meaning given to “Western Power Network” it in the *Code*.

{Note: Under the *Code* “Western Power Network” means “the *covered network* that is *covered* under section 3.1”. The “Western Power Network” is the portion of the SWIN that is owned by the Electricity Networks Corporation.

“network assets” has the same meaning given to it in the *Code*.

{Note: Under the *Code* “network assets”, in relation to a *network* means “the apparatus, equipment, plant and buildings used to provide or in connection with providing *covered services* on the *network*, which assets are either *connection assets* or *shared assets*”.

“reasonable time” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “reasonable time” means the time determined in accordance with clause 5.3 of the *contributions policy*.

“relevant area” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “relevant area” with respect to *connection applications* in relation to the *distribution system* means any area where the *relevant connection point* is located at a distance along the line feeder route equal to or greater than 25 km from the *relevant zone substation* within the *network* in the *rural zone* or *mixed zone*.)

“relevant connection point” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “relevant connection point” means, with respect to a *connection application*, the appropriate *connection point* as determined under clause 6.5 of the *contributions policy*.)

“relevant zone substation” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “relevant zone substation” means the zone substation to which the new or upgraded *connection* will be connected under normal system operating conditions.

“SWIS” has the meaning given to it in the *Code*.

{Note: Under the Code "SWIS" has the same meaning as given to it in the *Electricity Industry Act 2004*, being "the interconnected transmission and distribution systems, generating works and associated works -

- (a) located in the South West of the State and extending generally between Kalbarri, Albany and Kalgoorlie; and
- (b) into which electricity is supplied by -
 - (i) one or more of the electricity generation plants at Kwinana, Muja, Collie and Pinjar; or
 - (ii) any prescribed electricity generation plant".}

“transmission system” has the same meaning given to it in the *Code*, but also includes equipment within zone substations used for the transportation of electricity at nominal voltage of less than 66 kV.

“user” has the same meaning given to it in the *Code*.

{Note: Under the Code "user" means "a person, including a *generator* or a *consumer*, who is a party to an [*sic.*] contract for services with a *service provider*, and under section 13.4(e) includes another *business* as a party to a *deemed access contract*".}

“works” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “works” includes *headworks* and all works required to be undertaken to provide an *applicant* with the *covered services* sought by the *applicant* in a *connection application*.}

2. Introduction

This document explains Western Power’s Distribution Headworks Scheme methodology used to determine the headworks prices that may be applied under the *Contributions Policy* as provided for in sections 5.17C and 5.17D of the Code.

2.1. Code Requirements

The following Code provisions apply to a headworks scheme.

5.17C Despite section 5.14, the Authority may approve a *contributions policy* that includes a **“headworks scheme”** which requires a user to make a payment to the service provider in respect of the user’s capacity at a connection point on a distribution system because the user is a member of a class, whether or not there is any required work in respect of the user.

5.17D A headworks scheme must:

- (a) identify the class of works in respect of which the scheme applies, which must not include any works on a transmission system or any works which effect a geographic extension of a network; and

- (b) not seek to recover headworks charges in an access arrangement period which in aggregate exceed 1% of the distribution system target revenue for the access arrangement period; and
- (c) identify the class of users who must make a payment under the scheme; and
- (d) set out the method for calculating the headworks charge, which method:
 - (i) must have the objective that headworks charges under the headworks scheme will, in the long term, and when applied across all users in the class referred to in section 5.17D(c), recover no more than the *service provider's* costs (such as would be incurred by a *service provider efficiently minimising costs*) of any *headworks*; and
 - (ii) must have the objective that the *headworks charge* payable by one *user* will differ from that payable by another *user* as a result of material differences in the *users' capacities* and the locations of their *connection points*, unless the *Authority* considers that a different approach would better achieve the *Code objective*; and
 - (iii) may use estimates and forecasts (including long term estimates and forecasts) of loads and costs; and
 - (iv) must contain a mechanism designed to ensure that there is no double recovery of costs in all the circumstances, including the manner of calculation of other contributions and tariffs; and
 - (v) may exclude a rebate mechanism (of the type contemplated by clauses A4.13(d) or A4.14(c)(ii) of Appendix 4) and may exclude a mechanism for retrospective adjustments to account for the difference between forecast and actual values.

This methodology document explains how the requirements of sections 5.17D (i), (ii) and (iii) have been met in the *contributions policy*.

2.2. Code compliance of the methodology

Section 5.17D

With respect to section 5.17D(i), the proposed headworks scheme is designed to recover the forecast costs of headworks less a forecast allowance for network access revenue from customers connecting to the network and who are forecast to make use of the associated headworks. Headworks prices are to be reviewed regularly to reflect the actual costs of the provision of headworks.

With respect to section 5.17D(ii), the headworks scheme is designed such that the contribution for an applicant depends on their individual required electricity demand, their distance from the relevant zone substation, and the voltage of the network to which they are connecting. Consequently charges for each applicant will differ as a result of material differences in the users' capacities and the locations of their connection points.

With respect to section 5.17D(iii), the headworks scheme prices are based on estimates and forecasts (including long term estimates and forecasts) of loads and costs.

2.3. Overview of Headworks Scheme

- (a) Distribution headworks are major enhancements to the existing three-phase distribution system to provide increased electricity capacity to meet growth in customer electricity requirements. Distribution headworks may include major works such as overhead HV power lines, voltage regulators, step-up and step-down transformers, network augmentations, and new distribution feeders.
- (b) The headworks scheme and associated prices apply to the provision of distribution infrastructure only, not transmission infrastructure, and in particular applies to those customers seeking to connect to the network in the rural and regional areas of the SWIS. Other areas of the SWIS (such as the CBD and metropolitan Perth) are excluded from the scheme, and charges for increases to network capacity in those areas are determined on a case by case basis.
- (c) The headworks scheme includes a headworks charge that allows for an equitable sharing of costs between all new customers, including customers seeking to upgrade existing connections, and one which presents less of a financial barrier to developments triggered by individual customers.
- (d) The headworks scheme applies to connection applications in relation to the distribution system where the relevant connection point is located at a distance equal to or greater than 25 kms from the relevant zone substation in either the rural zone or mixed zone within the network.
- (e) The headworks charge varies depending on the location and the connection voltage level. It reflects the average cost Western Power incurs in providing additional electricity capacity to the relevant parts of the network. The charge does not include the direct costs of customer connection to the existing network, including reticulation of underground electricity services for new subdivisions, which are determined in addition to the headworks charge.

3. Objectives of the headworks scheme

This section sets out the objectives used in determining the headworks scheme and prices.

- (a) The headworks scheme has been designed to meet the high-level objectives described below.
 - (i) Comply and be consistent with the regulatory framework;
 - (ii) Provide a method for allocating the costs of the provision of network distribution headworks to customers seeking to connect to the network in a fair and equitable manner;

- (iii) Be as cost reflective as is reasonable to reflect the network user's utilisation of the network headworks capacity;
 - (iv) Be as simple and straight forward as is reasonable taking into account other objectives; and
 - (v) Provide price stability and certainty to enable network users to make informed investment decisions.
- (b) The methodology must ensure that headworks contributions will, in the long term, recover no more than Western Power's costs of headworks.

4. Methodology Overview

This section provides an overview of the methodology used in determining the headworks price. It is noted that the cost of the provision of electricity capacity at a particular location is a function of:

- (i) the amount of capacity sought by a customer;
- (ii) the distance along a feeder from the zone substation; and
- (iii) the voltage level of the feeder line, and the costs of the power line infrastructure itself.

On this basis, the approach taken to develop the headworks prices is as follows.

- (a) Western Power has modelled a standard feeder to determine the capacity available at various distances along the feeder and determined the cost to provide that capacity in terms of a fixed cost (\$ per kVA) plus a variable cost (\$ per kVA) for the provision of that capacity at the various lengths of line. Modelling was carried out separately for 22 kV and 33 kV lines.
- (b) The results of the modelling carried out under (a) have then been reduced to a standard mathematical formula that defines the cost of distribution headworks required to deliver capacity at any point along a fully developed feeder. This mathematical approach has been further adjusted to reflect the costs associated with a number of actual studies to ensure the price structure is robust and that it meets the objectives and principles of the headworks scheme.
- (c) Price lists have then been produced that enable a headworks charge to be determined for an applicant seeking a new connection to the network or for a load increase at an existing connection. The charge is based on:
 - (i) the capacity sought;
 - (ii) the distance to the zone substation; and
 - (iii) the voltage of the feeder supplying the customer.

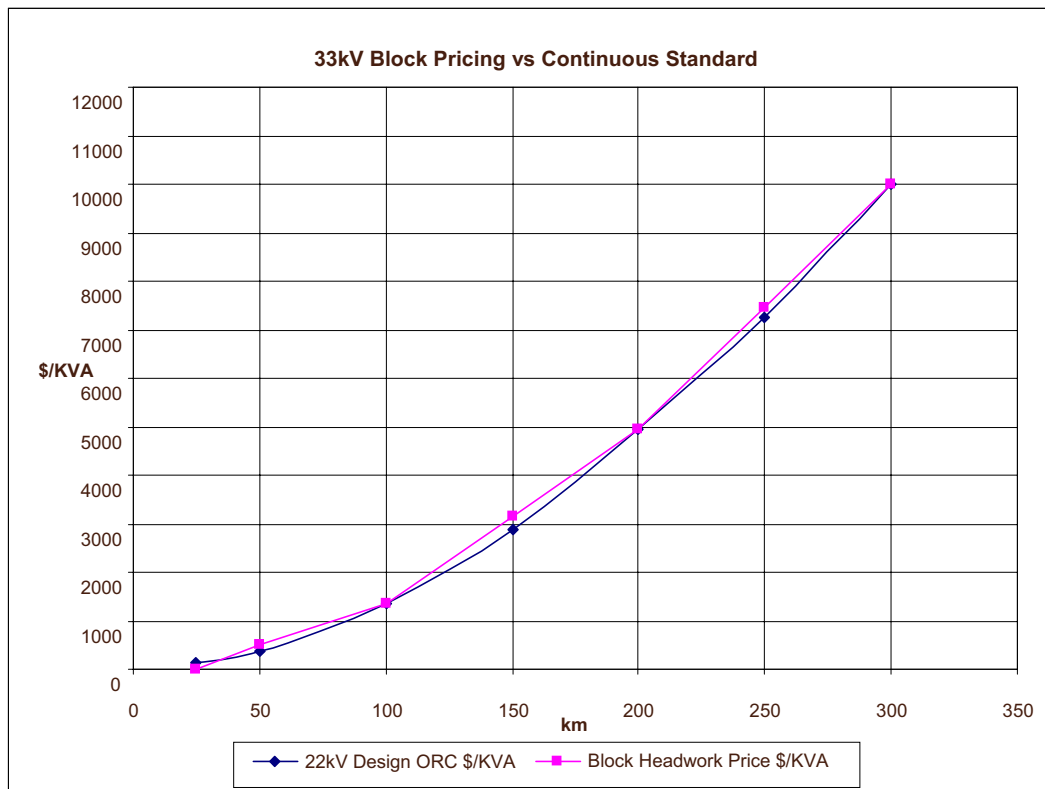
5. Methodology

5.1. Modelling of a Standard Feeder

- (a) As developing and applying locational specific headworks charges in all possible SWIS locations is not a feasible or practicable outcome, Western Power has developed a standard SWIS headworks price based on modelling of standard distribution feeders.
- (b) A distribution planning study was conducted and identified:
 - (i) the optimal (fully developed) standard feeder capacity for line distances in steps from 50 km to 300 km for each of 22 kV and 33 kV voltage levels; and
 - (ii) the distribution line construction cost estimates from recent representative baskets of actual projects, applied to the line distances in steps from 50 km to 300 km at each voltage level.
- (c) These optimal replacement costs and capacity-distance outcomes were applied to determine a standardised headworks cost-capacity curve. This curve describes the calculation of a standardised headwork cost over each of the 50 km increments as follows:
 - (i) Standard headworks price = [Fixed cost (FC) plus Variable cost (VC)] / Capacity Delivered expressed in \$/kVA.

{Note that the capacity of the feeder at each distance has been determined on the basis of using 19/3.25 all aluminium alloy conductor (AAAC), and installing two voltage regulators to maximise the capacity that could be obtained within the statutory voltage limits. Consequently the fixed cost is representative of the cost of the two regulators and the variable cost reflects the cost of the feeder line per km.}

- (d) This capacity-cost curve was then converted mathematically into a headworks price applied in block increments of distance and taking into account the 25 km zero charge distance. Two part block pricing allows for practical application of distance pricing.
- (e) The resulting headworks price (in \$/kVA) for each block increment referred above is illustrated against the standard capacity-cost curve in the figure overleaf:



5.2. Headworks Modelling at Specific Locations

This section describes the location specific studies that were carried out to determine the actual cost of the provision of additional network capacity in seven locations within the SWIS.

- (a) Western Power has conducted extensive modelling to determine the optimal network development pathway for seven representative locations within the SWIS (Walpole-Denmark; Bremer Bay; Ravensthorpe; Dongara; Brookton; Jurien Bay and Kalbarri).
- (b) This modelling considered both network augmentation options and alternative network options (embedded generation) to meet the forecast load growth for each location. The key elements of the models developed included:
 - (i) Load forecasts. Central load forecasts were developed from the current customer application data available to Western Power, the existing customer load profile on each feeder, and from long term historical load growth rates for each region. Land subdivisions were allocated an estimated commencement date, diversified maximum demand and time to maturity. Low and high case load forecast scenarios were developed by considering adjustments to the underlying application data and long term load feeder growth rates.

- (ii) Network distribution augmentation costs and/or embedded generation costs. All potential currently available and future network augmentations were considered. A cost estimate of each option was developed and the additional network capacity delivered was modelled by Western Power using load flow analysis. Alternative embedded generation option costs were established from current industry unit cost estimates. Embedded generation options considered included islanding, semi-islanding and peak lopping modes of operation. Peak lopping mode whereby the embedded generation is used to cap the feeder demand, (using load distribution curve) proved the lowest cost of these approaches.
- (iii) Network distribution revenue was determined using average historical distribution revenue data for each location considered.
- (c) The models determined the optimal network development pathway for each location over a long term 30 year study period, being that option that delivered the lowest net present value of meeting the forecast customer loads.
- (d) In all locations considered the required investments did not meet the New Facilities Investment Test without customer contributions (by differing quantum). The models were used to develop a locational specific headworks charge that when applied to the forecast customer loads for that location, ensured that the net present value of revenue equalled the net present value of network costs over the period.

5.3. Adjustment of the Standard Headwork Formula

- (a) Western Power considered the differences between the locational headwork charge determined by previous modelling and the standard optimal cost approach. Differences were noted in particular locations due to the existence of factors including initial spare feeder capacity; the existence of low cost network enhancement options or high cost options; the potential for deferment of network options by the use of embedded generation; and that typically time staging of network augmentation options under detailed locational modelling better matched costs with capacity requirements over time.
- (b) Western Power considered options to minimise the gap between the standard optimal cost approach and the locational specific headworks cost determined from previous modelling along the feeder length. Typically the standard cost approach overstated the outcomes.
- (c) The adoption of a 75% adjustment factor applied to the standard cost approach was found to provide close alignment between the actual locational modelled costs and the mathematically derived cost.

5.4. Publishing of Prices

- (a) Western Power publishes the headworks prices applicable as a series of price list tables on its website. These price list tables show the headworks price payable by a customer (residential or commercial applicants) seeking connection to the network. Prices are displayed in 5 km distance increments (although actual distances are used when calculating the customer charge). These tables show:
 - (i) Distribution headworks prices: single commercial applicants (excludes standard revenue offsets);
 - (ii) Distribution headworks charges: residential subdivision and single residential applicants (includes standard revenue offsets);
 - (iii) Distribution headworks charges: commercial subdivision applicants (includes standard revenue offsets);
- (b) Published price list tables display pricing for customer connection at both 22 kV and 33 kV voltage levels.

5.5. Determining the headworks contribution

- (a) The *contributions policy* sets out the method for determining the headworks contribution. The headworks contribution so determined for a customer connection application depends on three factors:
 - (i) The capacity sought by the applicant (in kVA),
 - (ii) The distance from the nearest relevant zone substation (in km), and
 - (iii) The voltage of the distribution feeder to which the connection is made (either 22 kV or 33 kV).

6. Headworks Price List Review Process

This section sets out the procedures to be applied when adjusting the published headworks price list tables to ensure that current pricing reflects changes in the underlying construction cost structures.

- (a) Western Power will adjust the headworks price lists for price inflation on an annual basis using March on March point estimates from the ABS All Groups CPI index (catalogue number: 6401.0).
- (b) Western Power will reset the headworks price list tables prior to the commencement of a new access arrangement period to reflect current distribution construction cost estimates (to ensure that movements in costs or efficiencies have been taken into account). The price reset will take account of the annual price adjustments made to account for price inflation over the access arrangement period.

Appendix A - Derivation of Distribution Feeder Capacity

This appendix sets out the basis for Western Power’s determination of the capacity that can be delivered on a standard fully developed distribution feeder (“standard” feeder).

Standard Feeder Capacity

- (a) Western Power conducted load flow studies to determine the capacity of a “standard” distribution feeder at both 22 kV and 33 kV voltages. The capacity delivered along a distribution feeder is determined by the distance from the source and the feeder voltage level (subject to appropriate conductor size and use of voltage regulators etc).
- (b) The load flow studies assumed that a fully developed distribution feeder will have two voltage regulators along its length. For simplicity, the study determined the point load that when located at the end of a feeder of varying 50 km increments, would lower the feeder delivered voltage level to the emergency planning limits. Such a load is considered representative of the voltage constrained capacity of the feeder.
- (c) The results of these load flow studies are shown in the table below.

Line Length (km)	22kV Capacity (kVA)	33kV Capacity (kVA)
50km	6,500	14,300
100km	3,300	7,300
150km	2,250	5,100
200km	1,750	3,950
250km	-	3,340
300km	-	2,900

Appendix B - Derivation of Distribution Cost Estimate

This section sets out the basis for Western Power’s determination of the distribution costs of a standard fully developed distribution feeder (“standard” feeder).

Standard Feeder Cost Estimate

- (a) The cost estimates used for determining both the 33 kV and 22 kV “standard” distribution headworks infrastructure cost used in calculating the applicable headworks price lists are derived from the standard cost estimates developed by Western Power Country Planning and Development section. These standard estimation costs are used by Western Power in determining the connection quotations provided to customers.
- (b) The following specification assumptions were applied in determining the cost estimates applied by Western Power for a fully developed standard feeder:
 - (i) Voltage regulator (2 of 250 amp rated);
 - (ii) Overhead 3 phase line construction cost (19/3.25 AAAC conductor). Distribution line construction costs were based upon wood pole overhead construction type, which is representative of most country distribution lines. Construction type is the same for both 22 kV and 33 kV voltage levels; and
 - (iii) Substation feeder circuit cost is not included as it is normally treated as a transmission development cost item.
- (c) Western Power updates these cost estimates on a regular basis to reflect up to date changes in the average standard cost of construction of new distribution infrastructure for use in customer quotations and internal budgeting. Refer to section 6 for details of the headworks price review procedures.

Appendix C - Revenue Offsets

This appendix describes the process for determining revenue offsets that may be applicable to a customer headworks contribution.

Overview of Offsets

- (a) Headworks prices are reduced or offset by taking into account the network access revenue expected to arise from the connection over a reasonable period of time (which is assumed up to 15 years).
- (b) These offsets will vary depending on whether the connection is for residential or commercial customers. The revenue offset for commercial loads needs to be individually assessed, as every case will be different.
- (c) The revenue offset for residential and commercial land subdivisions can be pre-determined based on a set of standard assumptions which are listed in the table below.

Residential Land Subdivisions		Commercial Land Subdivisions	
(i)	5 kVA ADMD per lot ¹	(i)	40 kVA ADMD per lot
(ii)	5000 kWh consumption per annum per lot	(ii)	20% load factor with 30% Off Peak energy consumed per annum per lot
(iii)	Reference Tariff RT1 applied	(iii)	Reference Tariff RT4 applied
(iv)	4 years to full maturity of land uptake	(iv)	4 years to full maturity of land uptake
(v)	15 years reasonable time period for revenue	(v)	15 years reasonable time period for revenue

- (d) The price lists for residential and commercial subdivisions take the standard offset into account so that the headworks charge can be readily determined for such developments. Individual assessments may be required where specific land developments vary from these standard assumptions. The standard assumptions underlying the pre-determined revenue offset calculations are:
- (e) The headworks price lists and indicative worked examples published by Western Power on its website provide indicative prices for the following three cases namely
 - (i) residential subdivision applications;
 - (ii) commercial subdivision applications; and
 - (iii) single commercial customer applications.

¹ ADMD is the After Diversity Maximum Demand for the connection

- (f) In compiling the customer connection quotation, Western Power applies any network access revenue offsets that are surplus to the quantum of headworks charge applicable, as a further offset to any direct connection charges that may be payable by the customer, noting that revenue offsets are not to be double counted against both contribution requirements.

Appendix C.3 – Distribution Low Voltage Connection Scheme Methodology

September 2011



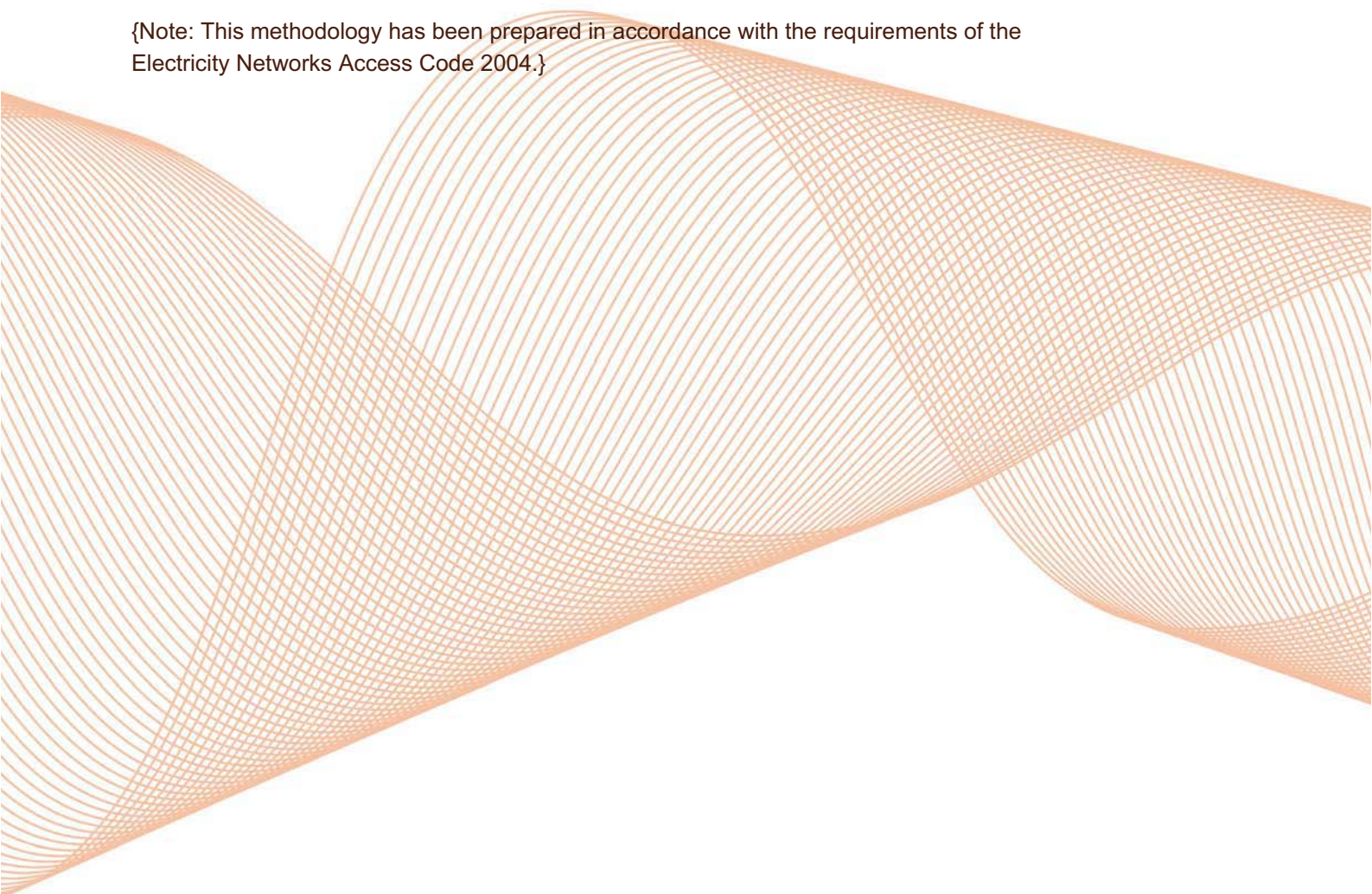
Distribution Low Voltage Connection Scheme Methodology



**ELECTRICITY NETWORKS CORPORATION
("WESTERN POWER")**

ABN 18 540 492 861

{Note: This methodology has been prepared in accordance with the requirements of the Electricity Networks Access Code 2004.}



1. Definitions

In this methodology document the following terms are used and have the same meaning as given in the *contributions policy* or the *Code* (reproduced below for convenience).

“Code” means the *Electricity Networks Access Code 2004 (as amended)*.

“connection application” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “connection application” means “an application lodged with Western Power under the *applications and queuing policy* that has the potential to require a modification to the *network*”.

“connection point” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “connection point” means “an *exit point* or an *entry point* or a *bi-directional point* identified or to be identified as such in an *access contract*”.

“contribution” has the same meaning given to it in the *Code*, but also includes an *alternative option contribution*.

{Note: Under the *Code* “contribution” in relation to a *covered network*, means “a *capital contribution*, a *non-capital contribution* or a *headworks charge*”.

“contributions policy” has the same meaning given to it in the *Code*.

{Note: Under the *Code* “contributions policy” means “a policy in an access arrangement under section 5.1(h) dealing with contributions by users”.

“distribution low voltage connection scheme” means the scheme described in clause 7 of the *contributions policy*.

“distribution low voltage connection scheme application” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “distribution low voltage connection scheme application” means a *connection application* where:

- (a) the proposed *connection point* is to the *distribution system low voltage network* and is within 25 kms of the *relevant zone substation*, and
- (b) the *applicant’s* required electrical capacity is in excess of:
 - (i) the original design capacity for a greenfield development on an existing electricity serviced lot, or
 - (ii) the existing capacity in respect of that *connection point* for a brownfield development.

“distribution low voltage connection scheme base charge” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “distribution low voltage connection scheme base charge” means the dollar value defined in section 7.3 of this *contributions policy*.

“distribution low voltage connection scheme works” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “distribution low voltage connection scheme works” with respect to a *distribution low voltage connection scheme application*, means works on the *distribution system* reasonably adjacent the *connection point* that directly provides for delivery of electricity capacity to that *connection point* and that may include switchgear, HV cable, transformers, *low voltage* cable and equipment.}

“distribution system” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “distribution system” has the same meaning given to it in the *Code*, but excludes equipment within zone substations used for the transportation of electricity at nominal voltage of less than 66 kV.}

“forecast costs” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “forecast costs” means “any or all of the *forecast new facilities investment* or the *forecast alternative option costs*, as applicable, to be incurred by Western Power with regards to works”.

“headworks” has the same meaning given to it in the *Code*.

{Note under the *Code* “headworks” in respect of a *headworks scheme* means “the class of works identified under section 5.17D (a) as the class in respect of which the *headworks scheme* applies”.

“headworks charge” has the same meaning given to it in the *Code*.

{Note: Under the *Code* “headworks charge”, in respect of a *headworks scheme*, means “the amount payable by a *user* to a *service provider* under the *headworks scheme* in respect of a *connection point*”.

“headworks scheme” has the same meaning given to it in the *Code*.

{Note: Under the *Code* “headworks scheme” means “a scheme under section 5.17C”.

“load” has the same meaning given to it in the *Code*.

{Note: Under the *Code* “load” means “the amount of electrical power transferred out of a *network* at a *connection point* at a specified time”.

“low voltage” has the same meaning given to it in the *contributions policy*

{Note: Under the *Contributions Policy* “low voltage” means “the low voltage level of the distribution network where the voltage is less than 1 kV”.

“network” has the same meaning given to “Western Power Network” it in the *Code*.

{Note: Under the *Code* “Western Power Network” means “the *covered network* that is *covered* under section 3.1”. The “Western Power Network” is the portion of the SWIN that is owned by the Electricity Networks Corporation.

“relevant distribution transformer” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “relevant distribution transformer” with respect to the *distribution low voltage connection scheme* means the transformer from which the new or upgraded *connection* will be supplied under normal system operating conditions.}

“**relevant zone substation**” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “relevant zone substation” means the zone substation to which the new or upgraded *connection* will be connected under normal system operating conditions.}

“**scheme**” means the *distribution low voltage connection scheme* as defined in the *contributions policy*.

“**street feed**” means a *connection* to the *distribution network* which is not contiguous to the *relevant distribution transformer*.

“**SWIS**” has the meaning given to it in the *Code*.

{Note: Under the *Code* "SWIS" has the same meaning as given to it in the *Electricity Industry Act 2004*, being "the interconnected transmission and distribution systems, generating works and associated works -

- (a) located in the South West of the State and extending generally between Kalbarri, Albany and Kalgoorlie; and
- (b) into which electricity is supplied by -
 - (i) one or more of the electricity generation plants at Kwinana, Muja, Collie and Pinjar; or
 - (ii) any prescribed electricity generation plant".}

“**user**” has the same meaning given to it in the *Code*.

{Note: Under the *Code* "user" means "a person, including a *generator* or a *consumer*, who is a party to a contract for services with a *service provider*, and under section 13.4(e) includes another *business* as a party to a *deemed access contract*".}

“**works**” has the same meaning given to it in the *contributions policy*.

{Note: Under the *contributions policy* “works” includes “*headworks* and all works required to be undertaken to provide an *applicant* with the *covered services* sought by the *applicant* in a *connection application*”.

2. Introduction

This document explains Western Power’s *distribution low voltage connection scheme* methodology used to determine the prices that may be applied under the *Contributions Policy*, as provided for under sections 5.17C and 5.17D of the *Code*. This *distribution low voltage connection scheme* complies with those *Code* provisions which apply to all *headworks schemes*.

2.1 Code Requirements

The following *Code* provisions apply to a *headworks scheme*.

5.17C Despite section 5.14, the Authority may approve a *contributions policy* that includes a “**headworks scheme**” which requires a *user* to make a payment to the *service provider* in respect of the *user’s* capacity at a *connection point* on a *distribution system* because the *user* is a member of a class, whether or not there is any *required work* in respect of the *user*.

5.17D A *headworks scheme* must:

- (a) identify the class of *works* in respect of which the scheme applies, which must not include any works on a *transmission system* or any *works* which effect a geographic extension of a *network*; and
- (b) not seek to recover *headworks charges* in an *access arrangement period* which in aggregate exceed 5% of the *distribution system target revenue* for the *access arrangement period*; and
- (c) identify the class of *users* who must make a payment under the scheme; and
- (d) set out the method for calculating the *headworks charge*, which method:
 - (i) must have the objective that *headworks charges* under the *headworks scheme* will, in the long term, and when applied across all *users* in the class referred to in section 5.17D (c), recover no more than the *service provider’s* costs (such as would be incurred by a *service provider* *efficiently minimising costs*) of any *headworks*; and
 - (ii) must have the objective that the *headworks charge* payable by one *user* will differ from that payable by another *user* as a result of material differences in the *users’* capacities and the locations of their *connection points*, unless the *Authority* considers that a different approach would better achieve the *Code objective*; and
 - (iii) may use estimates and forecasts (including long term estimates and forecasts) of loads and costs; and
 - (iv) must contain a mechanism designed to ensure that there is no double recovery of costs in all the circumstances, including the manner of calculation of other *contributions* and *tariffs*; and
 - (v) may exclude a rebate mechanism (of the type contemplated by clauses A4.13(d) or A4.14(c)(ii) of Appendix 4) and may exclude a mechanism for retrospective adjustments to account for the difference between forecast and actual values.

This methodology document explains how the requirements of sections 5.17D (d) (i), (ii) and (iii) have been met in the *contributions policy*.

2.2 Code compliance of the methodology with section 5.17D (d)

With respect to section 5.17D (d) (i), the *distribution low voltage connection scheme* is designed to recover the *forecast costs* of *distribution low voltage connection scheme works*. The prices of the

distribution low voltage connection scheme are to be reviewed not less than once every 18 months to reflect the actual costs of the provision of *distribution low voltage connection scheme works*.

With respect to section 5.17D (d) (ii), the *distribution low voltage connection scheme* is designed such that the *contribution* for an *applicant* depends on their individual required electricity demand, and the point of the network to which they are connected. Consequently, *headworks charges* for each applicant will differ as a result of differences in the users' capacity requirements and the locations of their connection points.

With respect to section 5.17D (d) (iii), the *distribution low voltage connection scheme* prices are based on estimates and forecasts (including long term estimates and forecasts) of loads and costs.

2.3 Overview of the distribution low voltage connection scheme

- (a) The *distribution low voltage connection scheme* and associated prices apply to the provision of *distribution low voltage connection scheme works* only. The class of applicants must meet the following criteria:
 - (i) the proposed connection point is to the distribution system low voltage network and is within 25 kms of the relevant zone substation, and
 - (ii) the *applicant's* required electrical capacity is in excess of:
 - (A) the original design capacity for a greenfield development on an existing electricity serviced lot, or
 - (B) the existing capacity in respect of that *connection point* for a brownfield development.
- (b) The prices are in terms of \$/kVA.
- (c) The *headworks charge* that an *applicant* pays depends on their required electricity demand and whether there will be a distribution transformer on the lot where the *connection point* is located.

3. Objectives of the Distribution Low Voltage Connection Scheme

This section sets out the objectives used in determining the Distribution Low Voltage Connection Scheme.

- (a) The *distribution low voltage connection scheme* has been designed to meet the high-level objectives described below.
 - (i) Comply and be consistent with the regulatory framework;
 - (ii) Provide a method for allocating the costs of the provision of *distribution low voltage connection scheme works* in a fair and equitable manner;

- (iii) Be as cost reflective as is reasonable to reflect the network *user's* utilisation of the network capacity;
 - (iv) Be as simple and straight forward as is reasonable taking into account other objectives; and
 - (v) Provide price stability and certainty to enable network users to make informed investment decisions.
- (b) The methodology must ensure *contributions* from the *scheme* will, in the long term, recover no more than Western Power's costs of *distribution low voltage connection scheme works*.

4. Methodology Overview

This section provides an overview of the methodology used in determining the *distribution low voltage connection scheme* prices. It is noted that the cost of the provision of electricity capacity at a particular location is a function of:

- (i) the amount of capacity sought by an *applicant*; and
- (ii) whether the location of the connection point is contiguous to the location of the transformer, or whether the connection point is supplied from the low voltage street network.

On this basis, the approach taken to develop the *distribution low voltage connection scheme* prices is as follows.

- (a) Western Power determines the costs of *distribution low voltage connection scheme works* for connection of applicants that meet the eligibility criteria for the *distribution low voltage connection scheme* over a period of 12 months.
- (b) The costs of *distribution low voltage connection scheme works* determined under (a) have been allocated to categories as follows:
 - (i) whether the incremental capacity requirement at the connection point determined under clause 7.3 (a) of the *contributions policy* is:
 - less than 216 kVA or
 - between 216 kVA and 630 kVA or
 - greater than 630 kVA, and
 - (ii) whether the location of the connection point is on a lot separate from the location of the transformer, or whether the connection point is supplied from the low voltage street network.

- (c) From the costs of *distribution low voltage connection scheme work* and the incremental electricity demand associated with the categories defined in (b) above, the total costs of supply for each tranche can be determined in terms of \$ per kVA.
- (d) The price structure and prices are then derived to reflect the average costs derived under (a) and (b) above. Prices are expressed in a block structure that provides for a continuous price path. Note that there is a separate price path for connections with a contiguous transformer to those connected to the low voltage street network.

5. Methodology detail

This section provides additional detail with respect to the price determination process.

5.1 Price tranche thresholds

Western Power has developed standard *distribution low voltage connection scheme* prices based on modelling of *connections* over the past 12 month period. Costs per unit of capacity (kVA) reduce as the demand increases due to economies of scale. Those economies reflect the following factors;

- fixed costs including cable trenching, reinstatement, traffic management, mobilisation costs and installation costs are incurred regardless of capacity supplied,
- increased utilisation of installed assets, and
- reduction in the per unit cost of transformers in terms of dollars per kVA of capacity. (transformers are purchased in standard sizes, typically 315 kVA, 630 kVA and 1000 kVA and on a per kVA basis the costs of these transformers reduce significantly as the size increases).

In order for these economies of scale to be recognised in the pricing structure thresholds are set that reflect both the cost of plant and the nature of the network required to provide the requested capacities. For example, in general customers seeking less than 216 kVA are supplied from the low voltage distribution network, customers seeking demand between 216 kVA and 630 kVA require installation of a new transformer and may require that transformer to be installed on their lot, and in almost all circumstances customers seeking loads in excess of 630 kVA will require direct connection to a new transformer on their lot. Consequently the thresholds identified are:

- (a) Tranche 1 - for the first 216 kVA of requested *load*,
- (b) Tranche 2 - for additional units of *load* from 216 kVA to 630 kVA, and
- (c) Tranche 3 - for additional units of *load* above 631 kVA.

5.2 Price setting

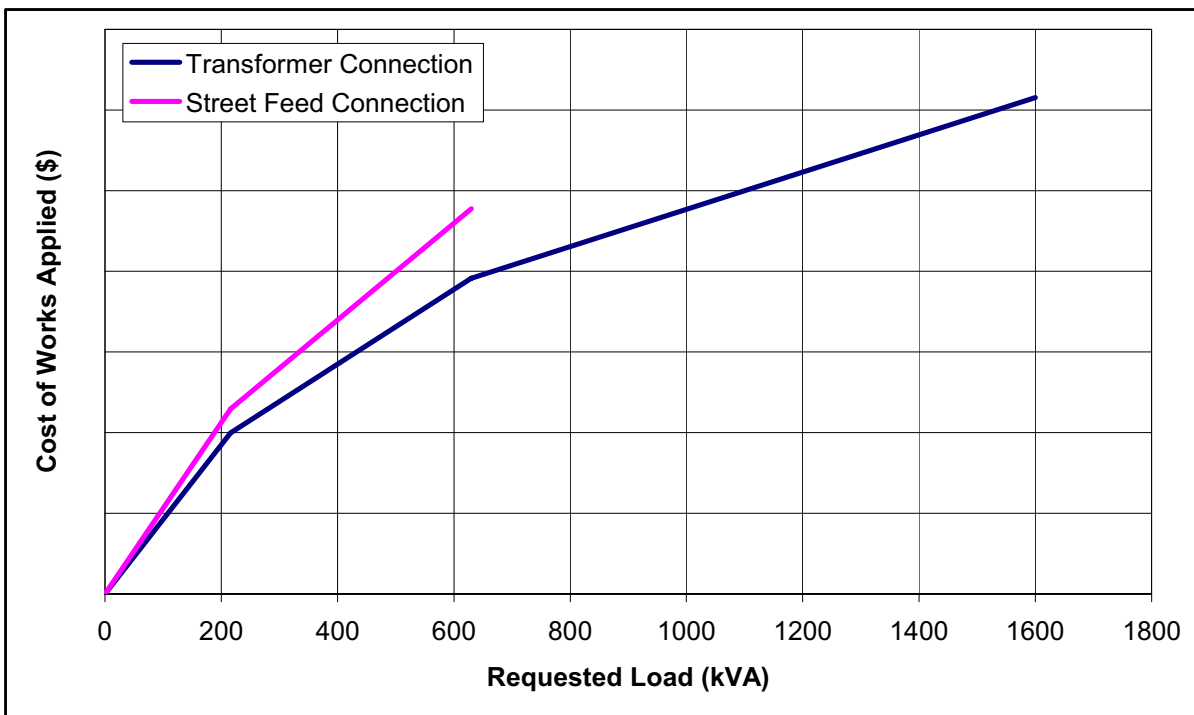
Prices are set within each tranche to only recover Western Power's costs over the long term, when applied across all distribution low voltage connection scheme applicants.

5.3 Separate prices for transformer direct connection and low voltage street connection

Direct connection to transformers avoids the cost of the low voltage street network and as such, the prices for these connections reflect this lower cost. Connection to the low voltage street network involves increased cost and consequently separate prices are put in place.

The difference between the two sets of prices is based on the average cost of the low voltage network. Figure 5.1 below illustrates the price tranches applied to both transformer direct connections and low voltage street connections.

Figure 5.1 – Modelling of the cost of works applied to the customer for Transformer Connections and Street Feed Connections.



5.4 Price structure

Two sets of prices are provided in block structure that reflects the separate price tranches for direct transformer connection and low voltage street connection. Prices are illustrative only. Actual prices will be published on Western Powers website as detailed in this document.

	Load tranche for incremental capacity	Fixed price	Variable price for incremental kVA in excess of tranche lower threshold
Direct transformer connection	0 to 216 kVA	\$0	\$500/kVA
Direct transformer connection	216 to 630 kVA	\$108,000	\$250/kVA
Direct transformer connection	Greater than 630 kVA	\$211,500	\$125/kVA
Low voltage street connection	0 to 216 kVA	\$0	\$600/kVA
Low voltage street connection	216 to 630 kVA	\$129,600	\$350/kVA

6. Exclusion

A distribution low voltage connection scheme application is excluded from the provisions of the distribution low voltage connection scheme where the distribution low voltage connection scheme base charge plus the exclusion threshold is less than the forecast costs of works as determined under clause 5.4 of the contributions policy.

The methodology for determining the exclusion threshold is as follows:

- (a) For all *works* in the *last twelve months* Western Power will:
 - (i) determine the amount of the *forecast costs* of the *works* applied to the customer as per section 5.4 of the *contributions policy*,
 - (ii) subtract from the amount in section 1.1(a) the *distribution low voltage connection scheme base charge*,
- (b) The exclusion threshold is equal to two standard deviations of all instances where the value in section 1.1(a)(ii) is positive.

Western Power will publish the amount of the exclusion threshold as detailed in this document.

7. Publishing and review of prices and exclusion threshold

Western Power publishes the *distribution low voltage connection scheme* prices as a price list and the exclusion threshold on its website. The price list is as illustrated in section 0.

Prices and the exclusion threshold will be reviewed periodically to reflect changes in the cost of provision of network assets. Any adjustments will apply for a minimum of six months.

Appendix D – Transfer and Relocation Policy

September 2011



Transfer and Relocation Policy



ELECTRICITY NETWORKS CORPORATION ("WESTERN POWER")

ABN 18 540 492 861

{Outline: This *transfer and relocation policy* is included in Western Power's *access arrangement* in accordance with section 5.1 of the *Code*.}

{Note: This policy has been prepared in accordance with the requirements of the Electricity Networks Access Code 2004.}

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1. Defined terms and interpretation

1.1 Defined terms

“**access arrangement**” means the current *access arrangement* approved in respect of the *network* under the *Code*.

“**access contract**” has the meaning given to it in the *Code*.

“**access rights**” means all or part of a *user’s* rights under an *access contract* to obtain a *covered service*.

“**applications and queuing policy**” means the applications and queuing policy under the *access arrangement*.

“**assign**” means to assign or novate a *user’s access rights* under an *access contract* to another person, and may take the form of a *bare transfer* or a *novation*.

“**assigned access right**” means any *access right* that is or is proposed to be the subject of an *assignment*.

“**assignee**” means a person who makes an *assignment*.

“**assignment**” means an *assignment* of a *user’s access rights* under an *access contract* to another person, and may take the form of a *bare transfer* or a *novation*.

“**assignor**” is a person who takes an *assignment*.

“**bare transfer**” means an *assignment* under which the *assignor assigns* the whole or a part of its *access rights* under an *access contract* to an *assignee*, but under which there is no *novation*, with the result that the *assignor’s* obligations under the *access contract* for *services*, and all other terms of the *access contract* for *services*, remain in full force and effect after the *assignment*, whether or not the *assignee* becomes bound to the *assignor* or any other party to fulfil those obligations.

“**bare transferee**” means a person who takes a *bare transfer*.

“**bidirectional point**” has the meaning given to it in the *applications and queuing policy*.

“**capacity**”, for a *connection point*, refers to the capacity of the *network* to transfer electricity at the *connection point*.

“**connection point**” means an *exit point* or an *entry point* or *bidirectional point* identified or to be identified as such in an *access contract*.

“**contracted capacity**”, for a *connection point*, means the maximum rate at which a *user* is permitted to transfer electricity to or from the *network* at the *connection point*, being either:

(a) the rate specified in the *user’s access contract* from time to time; or

- (b) if no rate is specified in the *user's access contract*, the maximum rate of electricity permitted to be transferred under the *reference service* eligibility criteria for the *reference service* for that *connection point* in the *user's electricity transfer access contract*; or
- (c) if no rate is specified in the *user's access contract* or in the *reference service* eligibility criteria, the maximum rate of electricity permitted to be transferred through the *connection assets* under the *technical rules*,

as applicable, and is measured in Watts or Volt-Amps.

“Code” means the *Electricity Networks Access Code 2004*.

“customer transfer request” has the meaning given in the *customer transfer code*.

“destination point” has the meaning given in clause 6.1(b).

“encumbrance” includes any lease, licence, native title right, easement, mortgage, charge, lien, pledge, deposit, hypothecation, restrictive covenant, building condition, retention of title or other interest of any third party affecting any property.

“entry point” has the meaning given to it in the *applications and queuing policy*.

“exit point” has the meaning given to it in the *applications and queuing policy*.

“law” means “written laws” and “statutory instruments” as defined in the *Code*, orders given or made under a written law or statutory instrument as so defined or by a government agency or authority, Codes of Practice and Australian Standards deemed applicable under a written law and rules of the general law including the common law and equity.

“network” has the meaning given to “Western Power Network” in the *Code*.

“novate” and **“novation”** mean to substitute, with the consent of all parties to the *access contract* and with effect on and from a date nominated as the effective date of the novation, an *assignee* for an *assignor* as a party to an *access contract*, with the result that:

- (a) all rights and obligations of the *assignor* under the *access contract* become rights and obligations of the *assignee* as if the *assignee* had been named in the *access contract* in place of the *assignor*; and
- (b) the *assignor* is released from any obligations under the *access contract* arising on or after the effective date of the novation, but remains liable for any default by it in the performance of those obligations prior to the effective date of the novation.

“relocation” has the meaning given in clause 6.1(a).

“retiring point” has the meaning given in clause 6.1(a).

“service”, in respect of a *connection point*, means a *covered service* to be provided under an *access contract* in respect of the *connection point*.

1.2 Interpretation

- (a) Unless:
- (i) the contrary intention is apparent: or
 - (ii) the term has been redefined in clause 1.1,
- a term with a defined meaning in the *Code* has the same meaning in this *transfer and relocation policy*.
- (b) Unless the contrary intention is apparent:
- (iii) a rule of interpretation in the *Code*; and
 - (iv) the *Interpretation Act 1984*,
- apply to the interpretation of this *transfer and relocation policy*.

2. Application of this *transfer and relocation policy*

2.1 Application in respect of an *access contract*

Unless otherwise expressly stated in an *access contract*, this *transfer and relocation policy* applies in its entirety to each *access contract*.

2.2 Application in respect of a *customer transfer request*

This *transfer and relocation policy* does not in any way apply to a *customer transfer request*.

3. Assignment only under this *transfer and relocation policy*

A *user* must not, except as expressly permitted by this *transfer and relocation policy*:

- (a) *assign*, novate, declare itself a trustee of, or otherwise dispose of, any of its rights under an *access contract*; or
- (b) subcontract the performance of its obligations under an *access contract*; or
- (c) create an encumbrance over any of its rights or obligations under an *access contract*.

4. Bare transfers

The provisions in this clause 4 apply to a *bare transfer*.

4.1 User may make *bare transfer*

- (a) Subject to clause 4.2, a *user* may make a *bare transfer* without Western Power's prior consent.
- (b) For the avoidance of doubt, a *bare transferee* does not become a *user* by virtue of any *bare transfer*.

4.2 User must notify Western Power of the details of the *bare transfer*

If the *user* makes a *bare transfer*, the *user* must notify Western Power of:

- (a) the identity of the *assignee*; and
- (b) the nature of the assigned *access rights*,

before the *assignee* may commence using the *assigned access rights*.

4.3 *Bare transfer* does not release the *user*

- (a) A *bare transfer* does not constitute a *novation*, and does not result in:
 - (i) the release of the *user* in any way from any of its obligations to Western Power under the *access contract*; or
 - (ii) the release of any provider of any bank guarantee under the *access contract* from any liability to Western Power under that bank guarantee.
- (b) The *user* remains wholly liable to Western Power for any default under the *access contract* in accordance with its terms, whether caused by the *user*, the *assignee* or any other person.
- (c) The provider of any bank guarantee under the *access contract* remains wholly liable to Western Power in accordance with the terms of that bank guarantee.

5. Assignments other than *bare transfers*

The provisions in this clause 5 apply to an *assignment* other than a *bare transfer*.

5.1 Western Power's consent required

For an *assignment* other than a *bare transfer*, the following provisions apply.

- (a) A *user* may not *assign* all or any *access rights* without Western Power's prior written consent.
- (b) Western Power is not required to give its consent to the *assignment* unless, under the proposed *assignment*, the *assignee* is bound to Western Power under terms that are identical to the terms of the *access contract* between Western Power and the *user*.

- (c) Western Power's consent shall not be unreasonably withheld or delayed where the *user* can satisfy Western Power (acting on reasonable commercial and technical grounds) that the proposed *assignee* is financially and technically capable of performing the *user's* obligations in respect of the *assigned access rights*.

5.2 Deed of novation

- (a) The *assignor* and the *assignee* must enter into a deed of *novation* with Western Power in such reasonable form as Western Power requires, pursuant to which, on and from the effective date of the *novation*:
 - (i) the *assignee* acknowledges Western Power's rights under the relevant *access contract* in respect of the *assigned access rights*, and undertakes to observe, perform and be bound by the *user's* obligations and to meet the *user's* liabilities in respect of the *assigned access rights* under the relevant *access contract*; and
 - (ii) subject to any limitations and exclusions of liability in the relevant *access contract*, the *assignor* indemnifies the *assignee* and Western Power against, and agrees to defend and hold them harmless from, all liabilities and costs either of them may suffer as a result of any default by the *assignor* under the relevant *access contract* in respect of the *assigned access rights* occurring prior to the effective date of the *novation*, including any default whose effects do not crystallise until after the effective date of the *novation*; and
 - (iii) Western Power releases the *assignor* from that part of the *user's* obligations and liabilities under the relevant *access contract* as relate to the *assigned access rights*.

5.3 Assignment to financially and technically competent persons

Western Power is not required to give its consent to an *assignment* under clause 5.1 if it can reasonably demonstrate that such an *assignment* would have the effect of materially increasing its financial or technical risk under the relevant *access contract*.

6. Relocation

6.1 Occurrence of relocation

A “**relocation**” occurs when a *user*:

- (a) decreases its *contracted capacity* at a *connection point* (a “**retiring point**”); and
- (b) makes a corresponding increase in its *contracted capacity* at another *connection point* (a “**destination point**”).

6.2 Access contract provisions in respect of a destination point

Western Power and the *user* must comply with any provisions in the *access contract* with respect to an increase of *contracted capacity* at a *connection point*, or an additional *connection point*, relating to a *destination point*.

6.3 Access contract provisions in respect to a retiring point

Western Power and the *user* must comply with any provisions in the *access contract* with respect to a decrease of *contracted capacity* at, or a deletion of, a *connection point*, relating to a *retiring point*.

6.4 Western Power's costs

A *user* who requests any *assignment* or *relocation* under this *transfer and relocation policy* shall reimburse Western Power for any cost incurred by Western Power, acting as a *reasonable and prudent person*, in processing such request.

Appendix E – Reference Services

September 2011



Reference Services



ELECTRICITY NETWORKS CORPORATION ("WESTERN POWER")

ABN 18 540 492 861

{Outline: These *reference services* are included in Western Power's *access arrangement* in accordance with section 5.1 of the *Code*.}

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1 Introduction

This document describes Western Power's *reference services*. It should be noted that:

- the *standard metering service* is defined in the model service level agreement most recently approved by the Economic Regulation Authority under the *Electricity Industry Metering Code 2005*; and
- the definitions of accumulation meter and interval meter are within the *Electricity Industry Metering Code 2005*.

{Note at the time the appendix was made, the definitions in the Electricity Industry Metering Code 2005 were:

“accumulation meter” means a meter that measures accumulated energy data and records it in one or more accumulated energy registers, and includes a meter with interval energy data storage capability which is deemed to be an accumulation meter under clause 3.2(2).

“interval meter” means a meter that measures interval energy data and records it in a data logger, and excludes a meter with interval energy data storage capability which is deemed to be an accumulation meter under clause 3.2(2).}

2 Reference Services (Exit Services)

Western Power offers 11 *exit services* as *reference services*.

Reference Service Name:	Reference Service A1 – Anytime Energy (Residential) Exit Service
Reference Service Description:	An <i>exit service</i> combined with a <i>connection service</i> and a <i>standard metering service</i> at an <i>exit point</i> on the low voltage (415 volts or less) <i>distribution system</i> .
Eligibility Criteria:	<p><i>Users</i> are eligible to use this <i>service</i> if:</p> <ol style="list-style-type: none"> 1) The <i>exit point</i> is located at a residential premise or a premise occupied by a voluntary/charitable organisation; and 2) A single register accumulation meter is installed at the <i>exit point</i>¹; and 3) The consumer’s facilities and equipment comply with the Technical Rules, the WA Electrical Requirements and AS 3000; and 4) each of the following does not apply: <ol style="list-style-type: none"> a) The <i>consumer</i> has been granted an exemption from the Technical Rules under section 12.34 of the <i>Code</i>; or b) Under an agreement with Western Power: <ol style="list-style-type: none"> i) The terms and conditions of the <i>access contract</i> under which the <i>service</i> will be provided are materially different to the Applicable Standard Access Contract for this <i>service</i>, ii) The tariff that determines the <i>charge</i> is different to the Applicable Reference Tariff for this <i>service</i>, or iii) The <i>User</i> is to receive delivered electricity at a <i>service standard</i> different to the Applicable Service Standard Benchmarks for this <i>service</i>.
Applicable Reference Tariff:	“RT1” in the <i>Price List</i> published in Appendix F.1 of the <i>Access Arrangement</i>
Applicable Standard Access Contract:	“Electricity Transfer Access Contract” published in Appendix A of the <i>Access Arrangement</i>
Applicable Service Standard Benchmarks:	As set out in Section 4.2 of the <i>Access Arrangement</i>

Reference Service Name:	Reference Service A2 – Anytime Energy (Business) Exit Service
Reference Service Description:	An <i>exit service</i> combined with a <i>connection service</i> and a <i>standard metering service</i> at an <i>exit point</i> on the low voltage (415 volts or less) <i>distribution system</i> .
Eligibility Criteria:	<p><i>Users</i> are eligible to use this <i>service</i> if:</p> <ol style="list-style-type: none"> 1) The <i>exit point</i> is located at a commercial premise; and 2) The maximum demand at the <i>exit point</i> is: <ol style="list-style-type: none"> a) less than 1,500 kVA based on historic metering data; or b) Western Power considers, as a reasonable and prudent person, that the <i>User's</i> forecast maximum demand will be less than 1,500 kVA. 3) A single register accumulation meter is installed at the <i>exit point</i>¹; and 4) The <i>consumer's facilities and equipment</i> comply with the Technical Rules, the WA Electrical Requirements and AS 3000; and 5) each of the following does not apply: <ol style="list-style-type: none"> a) The <i>consumer</i> has been granted an exemption from the Technical Rules under section 12.34 of the <i>Code</i>; or b) Under an agreement with Western Power: <ol style="list-style-type: none"> i) The terms and conditions of the <i>access contract</i> under which the <i>service</i> will be provided are materially different to the Applicable Standard Access Contract for this <i>service</i>, ii) The tariff that determines the <i>charge</i> is different to the Applicable Reference Tariff for this <i>service</i>, or iii) The <i>User</i> is to receive delivered electricity at a <i>service standard</i> different to the Applicable Service Standard Benchmarks for this <i>service</i>.
Applicable Reference Tariff:	"RT2" in the <i>Price List</i> published in Appendix F.1 of the <i>Access Arrangement</i>
Applicable Standard Access Contract:	"Electricity Transfer Access Contract" published in Appendix A of the <i>Access Arrangement</i>
Applicable Service Standard Benchmarks:	As set out in Section 4.2 of the <i>Access Arrangement</i>

Reference Service Name:	Reference Service A3 – Time of Use Energy (Residential) Exit Service
Reference Service Description:	An <i>exit service</i> combined with a <i>connection service</i> and a <i>standard metering service</i> at an <i>exit point</i> on the low voltage (415 volts or less) <i>distribution system</i> .
Eligibility Criteria:	<p><i>Users</i> are eligible to use this <i>service</i> if:</p> <ol style="list-style-type: none"> 1) The <i>exit point</i> is located at a residential premise or a premise occupied by a voluntary/charitable organisation; and 2) Either a Smartpower meter or multiple register TOU accumulation meter is installed at the <i>exit point</i>¹; and 3) The consumer's facilities and equipment comply with the Technical Rules, the WA Electrical Requirements and AS 3000; and 4) each of the following does not apply: <ol style="list-style-type: none"> a) The <i>consumer</i> has been granted an exemption from the Technical Rules under section 12.34 of the <i>Code</i>; or b) Under an agreement with Western Power: <ol style="list-style-type: none"> i) The terms and conditions of the <i>access contract</i> under which the <i>service</i> will be provided are materially different to the Applicable Standard Access Contract for this <i>service</i>, ii) The tariff that determines the <i>charge</i> is different to the Applicable Reference Tariff for this <i>service</i>, or iii) The <i>User</i> is to receive delivered electricity at a <i>service standard</i> different to the Applicable Service Standard Benchmarks for this <i>service</i>.
Applicable Reference Tariff:	"RT3" in the <i>Price List</i> published in Appendix F.1 of the <i>Access Arrangement</i>
Applicable Standard Access Contract:	"Electricity Transfer Access Contract" published in Appendix A of the <i>Access Arrangement</i>
Applicable Service Standard Benchmarks:	As set out in Section 4.2 of the <i>Access Arrangement</i>

Reference Service Name:	Reference Service A4 – Time of Use Energy (Business) Exit Service
Reference Service Description:	An <i>exit service</i> combined with a <i>connection service</i> and a <i>standard metering service</i> at an <i>exit point</i> on the low voltage (415 volts or less) <i>distribution system</i> .
Eligibility Criteria:	<p><i>Users</i> are eligible to use this <i>service</i> if:</p> <ol style="list-style-type: none"> 1) The <i>exit point</i> is located at a commercial premise; and 2) The maximum demand at the <i>exit point</i> is: <ol style="list-style-type: none"> a) less than 1,500 kVA based on historic metering data; or b) Western Power considers, as a reasonable and prudent person, that the <i>User's</i> forecast maximum demand will be less than 1,500 kVA. 3) A TOU interval meter is installed at the <i>exit point</i>¹; and 4) The consumer's <i>facilities and equipment</i> comply with the Technical Rules, the WA Electrical Requirements and AS 3000; and 5) each of the following does not apply: <ol style="list-style-type: none"> a) The <i>consumer</i> has been granted an exemption from the Technical Rules under section 12.34 of the <i>Code</i>; or b) Under an agreement with Western Power: <ol style="list-style-type: none"> i) The terms and conditions of the <i>access contract</i> under which the <i>service</i> will be provided are materially different to the Applicable Standard Access Contract for this <i>service</i>, ii) The tariff that determines the <i>charge</i> is different to the Applicable Reference Tariff for this <i>service</i>, or iii) The <i>User</i> is to receive delivered electricity at a <i>service standard</i> different to the Applicable Service Standard Benchmarks for this <i>service</i>.
Applicable Reference Tariff:	"RT4" in the <i>Price List</i> published in Appendix F.1 of the <i>Access Arrangement</i>
Applicable Standard Access Contract:	"Electricity Transfer Access Contract" published in Appendix A of the <i>Access Arrangement</i>
Applicable Service Standard Benchmarks:	As set out in Section 4.2 of the <i>Access Arrangement</i>

Reference Service Name:	Reference Service A5 – High Voltage Metered Demand Exit Service
Reference Service Description:	An <i>exit service</i> combined with a <i>connection service</i> and a <i>standard metering service</i> at an <i>exit point</i> on the high voltage (6.6 kV or higher) <i>distribution system</i> .
Eligibility Criteria:	<p><i>Users</i> are eligible to use this <i>service</i> if:</p> <ol style="list-style-type: none"> 1) The maximum demand at the <i>exit point</i> is: <ol style="list-style-type: none"> a) less than 1,500 kVA based on historic metering data; or b) Western Power considers, as a reasonable and prudent person, that the <i>User's</i> forecast maximum demand will be less than 1,500 kVA. 2) A TOU interval meter is installed at the <i>exit point</i>¹; and 3) The <i>consumer's facilities and equipment</i> comply with the Technical Rules, the WA Electrical Requirements and AS 3000; and 4) each of the following does not apply: <ol style="list-style-type: none"> a) The <i>consumer</i> has been granted an exemption from the Technical Rules under section 12.34 of the <i>Code</i>; or b) Under an agreement with Western Power: <ol style="list-style-type: none"> i) The terms and conditions of the <i>access contract</i> under which the <i>service</i> will be provided are materially different to the Applicable Standard Access Contract for this <i>service</i>, ii) The tariff that determines the <i>charge</i> is different to the Applicable Reference Tariff for this <i>service</i>, or iii) The <i>User</i> is to receive delivered electricity at a <i>service standard</i> different to the Applicable Service Standard Benchmarks for this <i>service</i>.
Applicable Reference Tariff:	"RT5" in the <i>Price List</i> published in Appendix F.1 of the <i>Access Arrangement</i>
Applicable Standard Access Contract:	"Electricity Transfer Access Contract" published in Appendix A of the <i>Access Arrangement</i>
Applicable Service Standard Benchmarks:	As set out in Section 4.2 of the <i>Access Arrangement</i>

Reference Service Name:	Reference Service A6 – Low Voltage Metered Demand Exit Service
Reference Service Description:	An <i>exit service</i> combined with a <i>connection service</i> and a <i>standard metering service</i> at an <i>exit point</i> on the low voltage (415 volts or less) <i>distribution system</i> .
Eligibility Criteria:	<p><i>Users</i> are eligible to use this <i>service</i> if:</p> <ol style="list-style-type: none"> 1) The maximum demand at the <i>exit point</i> is: <ol style="list-style-type: none"> a) less than 1,500 kVA based on historic metering data; or b) Western Power considers, as a reasonable and prudent person, that the <i>User's</i> forecast maximum demand will be less than 1,500 kVA. 2) A TOU interval meter is installed at the <i>exit point</i>¹; and 3) The consumer's <i>facilities and equipment</i> comply with the Technical Rules, the WA Electrical Requirements and AS 3000; and 4) each of the following does not apply: <ol style="list-style-type: none"> a) The <i>consumer</i> has been granted an exemption from the Technical Rules under section 12.34 of the <i>Code</i>; or b) Under an agreement with Western Power: <ol style="list-style-type: none"> i) The terms and conditions of the <i>access contract</i> under which the <i>service</i> will be provided are materially different to the Applicable Standard Access Contract for this <i>service</i>, ii) The tariff that determines the <i>charge</i> is different to the Applicable Reference Tariff for this <i>service</i>, or iii) The <i>User</i> is to receive delivered electricity at a <i>service standard</i> different to the Applicable Service Standard Benchmarks for this <i>service</i>.
Applicable Reference Tariff:	"RT6" in the <i>Price List</i> published in Appendix F.1 of the <i>Access Arrangement</i>
Applicable Standard Access Contract:	"Electricity Transfer Access Contract" published in Appendix A of the <i>Access Arrangement</i>
Applicable Service Standard Benchmarks:	As set out in Section 4.2 of the <i>Access Arrangement</i>

Reference Service Name:	Reference Service A7 – High Voltage Contract Maximum Demand Exit Service
Reference Service Description:	An <i>exit service</i> combined with a <i>connection service</i> and a <i>standard metering service</i> at an <i>exit point</i> on the high voltage (6.6 kV or higher) <i>distribution system</i>
Eligibility Criteria:	<p><i>Users</i> are eligible to use this <i>service</i> if:</p> <ol style="list-style-type: none"> 1) The contracted maximum demand at the <i>exit point</i> is greater than 1,000 kVA; and 2) A TOU interval meter is installed at the <i>exit point</i>¹; and 3) The consumer's <i>facilities and equipment</i> comply with the Technical Rules, the WA Electrical Requirements and AS 3000; and 4) each of the following does not apply: <ol style="list-style-type: none"> a) The <i>consumer</i> has been granted an exemption from the Technical Rules under section 12.34 of the <i>Code</i>; or b) Under an agreement with Western Power: <ol style="list-style-type: none"> i) The terms and conditions of the <i>access contract</i> under which the <i>service</i> will be provided are materially different to the Applicable Standard Access Contract for this <i>service</i>, ii) The tariff that determines the <i>charge</i> is different to the Applicable Reference Tariff for this <i>service</i>, or iii) The <i>User</i> is to receive delivered electricity at a <i>service standard</i> different to the Applicable Service Standard Benchmarks for this <i>service</i>.
Applicable Reference Tariff:	"RT7" in the <i>Price List</i> published in Appendix F.1 of the <i>Access Arrangement</i>
Applicable Standard Access Contract:	"Electricity Transfer Access Contract" published in Appendix A of the <i>Access Arrangement</i>
Applicable Service Standard Benchmarks:	As set out in Section 4.2 of the <i>Access Arrangement</i>

Reference Service Name:	Reference Service A8 – Low Voltage Contract Maximum Demand Exit Service
Reference Service Description:	An <i>exit service</i> combined with a <i>connection service</i> and a <i>standard metering service</i> at an <i>exit point</i> on the low voltage (415 volts or less) <i>distribution system</i> .
Eligibility Criteria:	<p><i>Users</i> are eligible to use this <i>service</i> if:</p> <ol style="list-style-type: none"> 1) The contracted maximum demand at the exit point is greater than 1,000 kVA; and 2) A TOU interval meter is installed at the exit point¹; and 3) The <i>consumer's facilities and equipment</i> comply with the Technical Rules, the WA Electrical Requirements and AS 3000; and 4) each of the following does not apply: <ol style="list-style-type: none"> a) The <i>consumer</i> has been granted an exemption from the Technical Rules under section 12.34 of the <i>Code</i>; or b) Under an agreement with Western Power: <ol style="list-style-type: none"> i) The terms and conditions of the <i>access contract</i> under which the <i>service</i> will be provided are materially different to the Applicable Standard Access Contract for this <i>service</i>, ii) The tariff that determines the <i>charge</i> is different to the Applicable Reference Tariff for this <i>service</i>, or iii) The <i>User</i> is to receive delivered electricity at a <i>service standard</i> different to the Applicable Service Standard Benchmarks for this <i>service</i>.
Applicable Reference Tariff:	"RT8" in the <i>Price List</i> published in Appendix F.1 of the <i>Access Arrangement</i>
Applicable Standard Access Contract:	"Electricity Transfer Access Contract" published in Appendix A of the <i>Access Arrangement</i>
Applicable Service Standard Benchmarks:	As set out in Section 4.2 of the <i>Access Arrangement</i>

Reference Service Name:	Reference Service A9 – Streetlighting Exit Service
Reference Service Description:	An <i>exit service</i> combined with a <i>connection service</i> at an <i>exit point</i> on the low voltage (415 volts or less) <i>distribution system</i> for the purpose of public street lighting, plus the service of the provision and maintenance of the streetlight.
Eligibility Criteria:	<ol style="list-style-type: none"> 1) Users are eligible to use this service if the streetlight is a Western Power streetlight; and 2) each of the following does not apply: <ol style="list-style-type: none"> a) The <i>consumer</i> has been granted an exemption from the Technical Rules under section 12.34 of the <i>Code</i>; or b) Under an agreement with Western Power: <ol style="list-style-type: none"> i) The terms and conditions of the <i>access contract</i> under which the <i>service</i> will be provided are materially different to the Applicable Standard Access Contract for this <i>service</i>, ii) The tariff that determines the <i>charge</i> is different to the Applicable Reference Tariff for this <i>service</i>, or iii) The <i>User</i> is to receive delivered electricity at a <i>service standard</i> different to the Applicable Service Standard Benchmarks for this <i>service</i>.
Applicable Reference Tariff:	“RT9” in the <i>Price List</i> published in Appendix F.1 of the <i>Access Arrangement</i>
Applicable Standard Access Contract:	“Electricity Transfer Access Contract” published in Appendix A of the <i>Access Arrangement</i>
Applicable Service Standard Benchmarks:	As set out in Sections 4.2 and 4.4 of the <i>Access Arrangement</i>

Reference Service Name:	Reference Service A10 –Un-Metered Supplies Exit Service
Reference Service Description:	An <i>exit service</i> combined with a <i>connection service</i> at an <i>exit point</i> on the low voltage (415 volts or less) <i>distribution system</i> .
Eligibility Criteria:	<p><i>Users</i> are eligible to use this <i>service</i> if:</p> <ol style="list-style-type: none"> 1) The <i>exit point</i> is located on public land; and 2) The <i>maximum load at the exit point</i> is not subject to user or consumer controlled variations in duration of usage; and 3) <i>Western Power</i>, as a reasonable and prudent person, forecasts the <i>maximum load at the exit point</i> to be less than 1 kW single-phase except for streetlights, traffic lights, rail crossings, and pedestrian lighting where the consumer is a road or local government authority, then the <i>maximum load at the exit point</i> is less than 4.8 kW single phase; and 4) <i>Metering</i> is not practicable due to the nature or location of the <i>exit point</i> and/or consumer's facilities and equipment; and 5) The consumer's facilities and equipment comply with the <i>Technical Rules</i>, the <i>WA Electrical Requirements</i> and <i>AS 3000</i>; and 6) each of the following does not apply: <ol style="list-style-type: none"> a) The <i>consumer</i> has been granted an exemption from the <i>Technical Rules</i> under section 12.34 of the <i>Code</i>; or b) Under an agreement with <i>Western Power</i>: <ol style="list-style-type: none"> i) The terms and conditions of the <i>access contract</i> under which the <i>service</i> will be provided are materially different to the <i>Applicable Standard Access Contract</i> for this <i>service</i>, ii) The tariff that determines the <i>charge</i> is different to the <i>Applicable Reference Tariff</i> for this <i>service</i>, or iii) The <i>User</i> is to receive delivered electricity at a <i>service standard</i> different to the <i>Applicable Service Standard Benchmarks</i> for this <i>service</i>.
Applicable Reference Tariff:	"RT10" in the <i>Price List</i> published in Appendix F.1 of the <i>Access Arrangement</i> The energy used will be estimated from the total connected wattage (name plate rating)
Applicable Standard Access Contract:	"Electricity Transfer Access Contract" published in Appendix A of the <i>Access Arrangement</i>
Applicable Service Standard Benchmarks:	As set out in Section 4.2 of the <i>Access Arrangement</i>

Reference Service Name:	Reference Service A11 – Transmission Exit Service
Reference Service Description:	An <i>exit service</i> combined with a <i>connection service</i> and a <i>standard metering service</i> at an <i>exit point</i> on the <i>transmission system</i> .
Eligibility Criteria:	<p><i>Users</i> are eligible to use this <i>service</i> if:</p> <ol style="list-style-type: none"> 1) A TOU interval meter is installed at the <i>exit point</i>¹; and 2) The consumer's <i>facilities and equipment</i> comply with the Technical Rules, the WA Electrical Requirements and AS 3000; and 3) each of the following does not apply: <ol style="list-style-type: none"> a) The <i>consumer</i> has been granted an exemption from the Technical Rules under section 12.34 of the <i>Code</i>; or b) Under an agreement with Western Power: <ol style="list-style-type: none"> i) The terms and conditions of the <i>access contract</i> under which the <i>service</i> will be provided are materially different to the Applicable Standard Access Contract for this <i>service</i>, ii) The tariff that determines the <i>charge</i> is different to the Applicable Reference Tariff for this <i>service</i>, or iii) The <i>User</i> is to receive delivered electricity at a <i>service standard</i> different to the Applicable Service Standard Benchmarks for this <i>service</i>.
Applicable Reference Tariff:	"TRT1" in the <i>Price List</i> published in Appendix F.1 of the <i>Access Arrangement</i>
Applicable Standard Access Contract:	"Electricity Transfer Access Contract" published in Appendix A of the <i>Access Arrangement</i>
Applicable Service Standard Benchmarks:	As set out in Section 4.3 of the <i>Access Arrangement</i>

3 Reference Services (Entry Services)

Western Power offers 2 entry services as reference services.

Reference Service Name:	Reference Service B1 – Distribution Entry Service
Reference Service Description:	An entry service combined with a connection service and a standard metering service at an entry point on the distribution system.
Eligibility Criteria:	<p>Users are eligible to use this service if:</p> <ol style="list-style-type: none"> 1) A TOU interval meter is installed at the entry point¹; and 2) The generator's facilities and equipment comply with the Technical Rules, the WA Electrical Requirements and AS 3000; and 3) each of the following does not apply: <ol style="list-style-type: none"> a) The generator has been granted an exemption from the Technical Rules under section 12.34 of the Code; or b) Under an agreement with Western Power: <ol style="list-style-type: none"> i) The terms and conditions of the access contract under which the service will be provided are materially different to the Applicable Standard Access Contract for this service, ii) The tariff that determines the charge is different to the Applicable Reference Tariff for this service, or iii) The User is to receive delivered electricity at a service standard different to the Applicable Service Standard Benchmarks for this service.
Applicable Reference Tariff:	"RT11" in the Price List published in Appendix F.1 of the Access Arrangement
Applicable Standard Access Contract:	"Electricity Transfer Access Contract" published in Appendix A of the Access Arrangement
Applicable Service Standard Benchmarks:	As set out in Section 4.2 of the Access Arrangement

Reference Service Name:	Reference Service B2 – Transmission Entry Service
Reference Service Description:	An <i>entry service</i> combined with a <i>connection service</i> and a <i>standard metering service</i> at an <i>entry point</i> on the <i>transmission system</i> .
Eligibility Criteria:	<p><i>Users</i> are eligible to use this <i>service</i> if:</p> <ol style="list-style-type: none"> 1) A TOU interval meter is installed at the entry point¹; and 2) The generator's facilities and equipment comply with the Technical Rules, the WA Electrical Requirements and AS 3000; and 3) each of the following does not apply: <ol style="list-style-type: none"> a) The generator has been granted an exemption from the Technical Rules under section 12.34 of the <i>Code</i>; or b) Under an agreement with Western Power: <ol style="list-style-type: none"> i) The terms and conditions of the <i>access contract</i> under which the <i>service</i> will be provided are materially different to the Applicable Standard Access Contract for this <i>service</i>, ii) The tariff that determines the <i>charge</i> is different to the Applicable Reference Tariff for this <i>service</i>, or iii) The <i>User</i> is to receive delivered electricity at a <i>service standard</i> different to the Applicable Service Standard Benchmarks for this <i>service</i>.
Applicable Reference Tariff:	"TRT2" in the <i>Price List</i> published in Appendix F.1 of the <i>Access Arrangement</i>
Applicable Standard Access Contract:	"Electricity Transfer Access Contract" published in Appendix A of the <i>Access Arrangement</i>
Applicable Service Standard Benchmarks:	As set out in Section 4.3 of the <i>Access Arrangement</i>

4 Reference Services (Bi-directional Services)

Western Power offers 4 *bi-directional services* as a *reference services*.

In this document:

“bi-directional point” has the meaning given to ‘bidirectional point’ in the Applications and Queuing Policy.

{Note at the time the appendix was made, the definition in the Applications and Queuing Policy was:

“bidirectional point” means a single, indivisible (except as allowed under this applications and queuing policy) point, that for purposes under the access arrangement involving the transfer of electricity, is deemed to consist of a single attachment point, connected or to be connected to a user’s connection point, with a single meter (regardless of the actual configuration of network assets making up the bidirectional point), at which electricity is to be transferred into and out of the network.}

“*bi-directional service*” means a *covered service* provided by *Western Power* at a *connection point* under which the user may transfer electricity into and out of the *Western Power Network* at the *connection point*.

Reference Service Name:	Reference Service C1 – Anytime Energy (Residential) – Bi-directional Service
Reference Service Description:	A bi-directional service combined with a connection service and a standard meter service at a bi-directional point on the low voltage (415 volts or less) distribution system. This applies to small scale generation from renewable sources, non-renewable sources or electrical vehicles
Eligibility Criteria:	<p>Users are eligible to use this service, regardless of whether a battery storage system is part of the installation, if:</p> <ol style="list-style-type: none"> 1) The bi-directional point is located at a residential premise or a premise occupied by a voluntary/charitable organisation with an inverter system rated up to 10 kVA for single phase connections and 30 kVA for three phase connections; and 2) An accumulation meter having capability for import and export channels is installed at the bi-directional point¹ ; and 3) The <i>consumer's</i> inverter system complies with the requirements of AS 4777 and the Technical Rules; and 4) The <i>consumer's facilities and equipment</i> comply with the Technical Rules, the WA Electrical Requirements and AS 3000; and 5) each of the following does not apply: <ol style="list-style-type: none"> a) The <i>consumer</i> has been granted an exemption from the Technical Rules under section 12.34 of the <i>Code</i>; or b) Under an agreement with Western Power: <ol style="list-style-type: none"> i) The terms and conditions of the <i>access contract</i> under which the <i>service</i> will be provided are materially different to the Applicable Standard Access Contract for this <i>service</i>, ii) The tariff that determines the <i>charge</i> is different to the Applicable Reference Tariff for this <i>service</i>, or iii) The <i>User</i> is to receive delivered electricity at a <i>service standard</i> different to the Applicable Service Standard Benchmarks for this <i>service</i>.
Applicable Reference	“RT13” in the <i>Price List</i> published in Appendix F.1 of the Access Arrangement

Reference Service Name:	Reference Service C1 – Anytime Energy (Residential) – Bi-directional Service
Tariff:	
Applicable Standard Access Contract:	“Electricity Transfer Access Contract” published in Appendix A of the Access Arrangement
Applicable Service Standard Benchmarks:	As set out in Section 4.2 of the Access Arrangement

Reference Service Name:	Reference Service C2 – Anytime Energy (Business) – Bi-directional Service
Reference Service Description:	A bi-directional service combined with a connection service and a standard meter service at a bi-directional point on the low voltage (415 volts or less) distribution system. This applies to small scale generation from renewable sources, non-renewable sources or electrical vehicles
Eligibility Criteria:	<p>Users are eligible to use this service, regardless of whether a battery storage system is part of the installation, if:</p> <ol style="list-style-type: none"> 1) The bi-directional point is located at a non-residential premise with an inverter system rated up to a total of 1 MVA for single or three-phase connections; and 2) The meter installed at the bi-directional point¹ is either: <ol style="list-style-type: none"> a) An accumulation meter having capability for import and export channels; or b) An interval meter having capability for import and export channels 3) The <i>consumer's</i> inverter system complies with the requirements of AS 4777 and the Technical Rules, and satisfies a technical assessment by Western Power for installations larger than 30kVA; and 4) The <i>consumer's facilities and equipment</i> comply with the Technical Rules, the WA Electrical Requirements and AS 3000; and 5) each of the following does not apply: <ol style="list-style-type: none"> a) The <i>consumer</i> has been granted an exemption from the Technical Rules under section 12.34 of the <i>Code</i>; or b) Under an agreement with Western Power: <ol style="list-style-type: none"> i) The terms and conditions of the <i>access contract</i> under which the <i>service</i> will be provided are materially different to the Applicable Standard Access Contract for this <i>service</i>, ii) The tariff that determines the <i>charge</i> is different to the Applicable Reference Tariff for this <i>service</i>, or iii) The <i>User</i> is to receive delivered electricity at a <i>service standard</i> different to the Applicable Service Standard Benchmarks for this <i>service</i>.
Applicable Reference Tariff:	“RT14” in the Price List published in Appendix F.1 of the Access Arrangement
Applicable Standard Access Contract:	“Electricity Transfer Access Contract” published in Appendix A of the Access Arrangement
Applicable Service Standard Benchmarks:	As set out in Section 4.2 of the Access Arrangement

Reference Service Name:	Reference Service C3 – Time of Use Energy (Residential) – Bi-directional Service
Reference Service Description:	A bi-directional service combined with a connection service and a standard meter service at a bi-directional point on the low voltage (415 volts or less) distribution system. This applies to small scale generation from renewable sources, non-renewable sources or electrical vehicles
Eligibility Criteria:	<p>Users are eligible to use this service, regardless of whether a battery storage system is part of the installation, if:</p> <ol style="list-style-type: none"> 1) The bi-directional point is located at a residential premise or a premise occupied by a voluntary/charitable organisation with an inverter system rated up to 10 kVA for single phase connections and 30 kVA for three phase connections; and 2) Either a SmartPower meter or multiple register TOU accumulation meter having capability for import and export channels is installed at the bi-directional point¹; and 3) The <i>consumer's</i> inverter system complies with the requirements of AS 4777 and the Technical Rules; and 4) The <i>consumer's facilities and equipment</i> comply with the Technical Rules, the WA Electrical Requirements and AS 3000; and 5) each of the following does not apply: <ol style="list-style-type: none"> a) The <i>consumer</i> has been granted an exemption from the Technical Rules under section 12.34 of the <i>Code</i>; or b) Under an agreement with Western Power: <ol style="list-style-type: none"> i) The terms and conditions of the <i>access contract</i> under which the <i>service</i> will be provided are materially different to the Applicable Standard Access Contract for this <i>service</i>, ii) The tariff that determines the <i>charge</i> is different to the Applicable Reference Tariff for this <i>service</i>, or iii) The <i>User</i> is to receive delivered electricity at a <i>service standard</i> different to the Applicable Service Standard Benchmarks for this <i>service</i>.
Applicable Reference Tariff:	"RT15" in the <i>Price List</i> published in Appendix F.1 of the Access Arrangement
Applicable Standard Access Contract:	"Electricity Transfer Access Contract" published in Appendix A of the Access Arrangement
Applicable Service Standard Benchmarks:	As set out in Section 4.2 of the Access Arrangement

Reference Service Name:	Reference Service C4 – Time of Energy (Business) – Bi-directional Service
Reference Service Description:	A bi-directional service combined with a connection service and a standard meter service at a bi-directional point on the low voltage (415 volts or less) distribution system. This applies to small scale generation from renewable sources, non-renewable sources or electrical vehicles
Eligibility Criteria:	<p>Users are eligible to use this service, regardless of whether a battery storage system is part of the installation, if:</p> <ol style="list-style-type: none"> 1) The bi-directional point is located at a non-residential premise with an inverter system rated up to a total of 1 MVA for single or three-phase connections; and 2) The meter installed at the bi-directional point¹ is either: <ol style="list-style-type: none"> a) A multiple register TOU accumulation meter having capability for import and export channels; or b) An interval meter having capability for import and export channels 3) The <i>consumer's</i> inverter system complies with the requirements of AS 4777 and the Technical Rules, and satisfies a technical assessment by Western Power for installations larger than 30kVA; and 4) The <i>consumer's facilities and equipment</i> comply with the Technical Rules, the WA Electrical Requirements and AS 3000; and 5) each of the following does not apply: <ol style="list-style-type: none"> a) The <i>consumer</i> has been granted an exemption from the Technical Rules under section 12.34 of the <i>Code</i>; or b) Under an agreement with Western Power: <ol style="list-style-type: none"> i) The terms and conditions of the <i>access contract</i> under which the <i>service</i> will be provided are materially different to the Applicable Standard Access Contract for this <i>service</i>, ii) The tariff that determines the <i>charge</i> is different to the Applicable Reference Tariff for this <i>service</i>, or iii) The <i>User</i> is to receive delivered electricity at a <i>service standard</i> different to the Applicable Service Standard Benchmarks for this <i>service</i>.
Applicable Reference Tariff:	"RT16" in the <i>Price List</i> published in Appendix F.1 of the Access Arrangement
Applicable Standard Access Contract:	"Electricity Transfer Access Contract" published in Appendix A of the Access Arrangement
Applicable Service Standard Benchmarks:	As set out in Section 4.2 of the Access Arrangement

¹. Under clause 14.1(c) of the *Applications and Queuing Policy* if a connection point consists of more than one *metering point*, the meters must be of the same type.

Appendix F.1 – 2012/13 Price List

September 2011



2012/13 Price List



**ELECTRICITY NETWORKS CORPORATION
("WESTERN POWER")**

ABN 18 540 492 861

Date of Issue: 30 September 2011

Date of Application 1 July 2012

A large, decorative graphic consisting of multiple overlapping, wavy lines in a light orange color, creating a mesh-like pattern that flows across the bottom half of the page.

All prices quoted in this Price List are *GST exclusive*.

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1 INTRODUCTION

This document details Western Power's Price List. For the purpose of section 5.1(f) of the *Electricity Networks Access Code 2004* this document forms part of Western Power's Access Arrangement.

This Price List is for the pricing year commencing on 1 July 2012 and ending on 30 June 2013.

For the avoidance of doubt, the prices within this Price List will apply to all consumption during the pricing year. Where consumption is metered with an accumulation meter and the meter reading interval causes some of the metered consumption to lie within the pricing year covered by this price list and the remainder within a previous or subsequent pricing year not covered by this price list, the consumption covered by this price list will be determined by prorating the metered consumption uniformly on a daily basis.

Section 2 lists the reference tariffs for the reference services provided by Western Power as stated in the company's access arrangement.

Sections 3 and 4 detail the reference tariffs, which are based on a number of components. The total charge payable by users under each reference tariff represents the sum of the amounts payable for each component within the relevant reference tariff.

Section 5 details all of the prices that are required to calculate the charges.

Included in section 6 are fees that are referred to in the Applications and Queuing Policy and the Standard Access Contract. Western Power treats these as non-reference services but notes that the list of non-reference service tariffs included in section 6 does not include tariffs for all non-reference services provided by Western Power.

2 REFERENCE SERVICES

The following table details which reference tariff is applicable to each of the reference services.

Reference Service	Reference Tariff
A1 – Anytime Energy (Residential) Exit Service	RT1
A2 – Anytime Energy (Business) Exit Service	RT2
A3 – Time of Use Energy (Residential) Exit Service	RT3
A4 – Time of Use Energy (Business) Exit Service	RT4
A5 – High Voltage Metered Demand Exit Service	RT5
A6 – Low Voltage Metered Demand Exit Service	RT6
A7 – High Voltage Contract Maximum Demand Exit Service	RT7
A8 – Low Voltage Contract Maximum Demand Exit Service	RT8
A9 – Streetlighting Exit Service	RT9
A10 – Un-Metered Supplies Exit Service	RT10
A11 – Transmission Exit Service	TRT1
B1 – Distribution Entry Service	RT11
B2 – Transmission Entry Service	TRT2
C1 – Anytime Energy (Residential) Bi-directional Service	RT13
C2 – Anytime Energy (Business) Bi-directional Service	RT14
C3 – Time of Use (Residential) Bi-directional Service	RT15
C4 – Time of Use (Business) Bi-directional Service	RT16

3 DISTRIBUTION TARIFF APPLICATION GUIDE

Within this price list the transmission and distribution components of the bundled charges are published, where applicable. The bundled charge is applicable when calculating the charge for the reference tariff, unless otherwise indicated.

For the avoidance of doubt, the bundled charge is the sum of the distribution and transmission components of the charge.

3.1 Reference Tariffs 1 and 2 (RT1 and RT2)

Reference Tariffs RT1 and RT2 consist of:

- (a) a fixed use of system charge (detailed in Table 1) which is payable each day;
- (b) a variable use of system charge calculated by multiplying the energy price (detailed in Table 1) by the quantity of electricity consumed at an exit point (expressed in kWh);
- (c) a fixed metering charge per revenue meter (detailed in Table 1) which is payable each day; and
- (d) a variable metering charge calculated by multiplying the variable price (detailed in Table 1) by the quantity of electricity consumed at an exit point (expressed in kWh).

3.2 Reference Tariffs 3 and 4 (RT3 and RT4)

Reference Tariffs RT3 and RT4 consist of:

- (a) a fixed use of system charge (detailed in Table 1) which is payable each day;
- (b) an on-peak use of system variable charge calculated by multiplying the on-peak energy price (detailed in Table 1) by the quantity of on-peak electricity consumed at an exit point (expressed in kWh);
- (c) an off-peak use of system variable charge calculated by multiplying the off-peak energy price (detailed in Table 1) by the quantity of off-peak electricity consumed at an exit point (expressed in kWh);
- (d) a fixed metering charge per revenue meter (detailed in Table 1) which is payable each day;
- (e) an on-peak variable metering charge calculated by multiplying the on-peak variable price (detailed in Table 1) by the quantity of on-peak electricity consumed at an exit point (expressed in kWh); and
- (f) an off-peak variable metering charge calculated by multiplying the off-peak variable price (detailed in Table 1) by the quantity of off-peak electricity consumed at an exit point (expressed in kWh).

Notes:

1. The on and off peak periods for these tariffs are defined in the following table (all times are Western Standard Time (WST)):

	Monday – Friday (includes public holidays)			Saturday - Sunday
	Off-peak	On-Peak	Off-Peak	Off-Peak
RT3	12:00am – 7:00am	7:00am – 9:00pm	9:00pm – 12:00am	All times
RT4	12:00am – 8:00am	8:00am – 10:00pm	10:00pm – 12:00am	All times

3.3 Reference Tariff 5 (RT5)

3.3.1 Tariff Calculation

Reference Tariff RT5 consists of:

- (a) a fixed metered demand charge (detailed in Table 4) which is payable each day based on the rolling 12-month maximum half-hourly demand at an exit point (expressed in kVA) multiplied by (1-Discout);
- (b) a variable metered demand charge calculated by multiplying the demand price (in excess of the lower threshold and detailed in Table 4) by the rolling 12-month maximum half-hourly demand at an exit point (expressed in kVA) minus the lower threshold with the result multiplied by (1-Discout);
- (c) if the metered demand is greater than 1,000 kVA a variable demand length charge calculated by multiplying the demand length price (detailed in Table 7) by the electrical distance to the zone substation by the rolling 12-month maximum half-hourly demand (expressed in kVA) minus 1,000 kVA (Note: a different rate applies after 10 km); and
- (d) a fixed metering charge per revenue meter (detailed in Table 9) which is payable each day.

Notes:

1. The on and off peak periods for this tariff are defined in the following table (all times are Western Standard Time (WST)):

Monday – Friday (includes public holidays)		Saturday - Sunday	
Off-peak	On-Peak	Off-Peak	Off-Peak
12:00am – 8:00am	8:00am – 10:00pm	10:00pm – 12:00am	All times

3.3.2 Discount Factor

A discount, based on the percentage of off peak energy consumption (as a proportion of the total energy consumption), applies to this tariff.

The Discount is defined as:

For MD < 1,000 kVA	$(E_{\text{Off Peak}}/E_{\text{Total}}) * DF$
For 1,000 <= MD < 1,500 kVA	$((1500 - MD)/500) * (E_{\text{Off Peak}}/E_{\text{Total}}) * DF$
For MD => 1,500 kVA	0

Where:

MD	is the rolling 12-month maximum half-hourly demand at an exit point (expressed in kVA);
DF	is the discount factor, which is set at 50%
$E_{\text{Off Peak}}$	is the total off peak energy for the billing period (expressed in kWh); and
E_{Total}	is the total energy (both on and off peak) for the billing period (expressed in kWh).

Notes:

1. This discount does not apply to the demand-length portion of the charge.

3.4 Reference Tariff 6 (RT6)

3.4.1 Tariff Calculation

Reference Tariff RT6 consists of:

- (a) a fixed metered demand charge (detailed in Table 5) which is payable each day based on the rolling 12-month maximum half-hourly demand at an exit point (expressed in kVA) multiplied by (1-Discout);
- (b) a variable metered demand charge (detailed in Table 5) calculated by multiplying the demand price (in excess of lower threshold) by the rolling 12-month maximum half-hourly demand at an exit point (expressed in kVA) minus the lower threshold with the result multiplied by (1-Discout);
- (c) if the metered demand is equal to or greater than 1,000 kVA a variable demand length charge calculated by multiplying the demand length price (detailed in Table 7) by the electrical distance to the zone substation by the rolling 12-month maximum half-hourly demand (expressed in kVA) minus 1,000 kVA (Note: a different rate applies after 10 km); and
- (d) a fixed metering charge per revenue meter (detailed in Table 9) which is payable each day

Notes:

1. This tariff is similar to Reference Tariff 5 - (RT5) in section 3.3 but for customers connected at low voltage. The higher tariff rates reflect the additional cost of using the low voltage network.
2. The on and off peak periods for this tariff are defined in the following table (all times are Western Standard Time (WST)):

Monday – Friday (includes public holidays)			Saturday - Sunday
Off-peak	On-Peak	Off-Peak	Off-Peak
12:00am – 8:00am	8:00am – 10:00pm	10:00pm – 12:00am	All times

3.4.2 Discount Factor

Identical to Reference Tariff 5 - (RT5) detailed in section 3.3.2.

3.5 Reference Tariff 7 (RT7)

3.5.1 Tariff Calculation

Reference Tariff RT7 consists of:

- (a) If the contracted maximum demand (CMD) is less than 7,000 kVA:
 - i. a fixed demand charge for the first 1,000 kVA (detailed in Table 6) which is payable each day; plus
 - ii. a variable demand charge calculated by multiplying the applicable demand price (detailed in Table 6) by the CMD at an exit point (expressed in kVA) minus 1,000 kVA; plus
 - iii. a variable demand length charge calculated by multiplying the demand length price (detailed in Table 7) by the electrical distance to the zone substation by the CMD (expressed in kVA) minus 1,000 kVA (Note: a different rate applies after 10 km);

- (b) If the CMD is equal to or greater than 7,000 kVA:
- i. a variable demand charge calculated by multiplying the applicable demand price (detailed in Table 6) by the CMD at an exit point (expressed in kVA); plus
 - ii. a variable demand length charge calculated by multiplying the demand length price (detailed in Table 8) by the electrical distance to the zone substation by the CMD (expressed in kVA) (Note: a different rate applies after 10 km);
- (c) a fixed metering charge per revenue meter (detailed in Table 9) which is payable each day;
- (d) a fixed administration charge (detailed in Table 10) which is payable each day; and
- (e) excess network usage charges (if applicable).

Notes:

1. For exit points located at the zone substation the fixed and demand charge specified in sections 3.5.1 (a)(i), (a)(ii) & (b)(i) is to be calculated using the transmission component only. In all other instances, the fixed and demand charge specified in sections 3.5.1 (a)(i), (a)(ii) & (b)(i) is to be calculated using the bundled charge.

3.5.2 Excess Network Usage Charges

An additional charge applies to this tariff where the peak half-hourly demand exceeds the nominated CMD during the billing period of the load.

The excess network usage charge (ENUC) is calculated by applying a factor to the excess usage as follows:

$$\text{ENUC} = \text{ENUC}_{\text{Transmission}} + \text{ENUC}_{\text{Distribution}}$$

Where

$$\text{ENUC}_{\text{Transmission}} = \text{ENUM} * (\text{PD} - \text{CMD}) * \text{DC}_{\text{Transmission}} / \text{CMD}$$

$$\text{ENUC}_{\text{Distribution}} = \text{ENUM} * (\text{PD} - \text{CMD}) * (\text{DC}_{\text{Distribution}} + \text{DLC}) / \text{CMD}$$

ENUM is the Excess network usage multiplier factor, which is set at 2

PD is the peak half-hourly demand during the billing period of the load (expressed in kVA)

CMD is the nominated CMD for the billing period of the load (expressed in kVA)

DC_{Transmission} are the applicable transmission components of the fixed and variable demand charges for the billing period for the nominated CMD

DC_{Distribution} are the applicable distribution components of the fixed and variable demand charges for the billing period for the nominated CMD

DLC are the applicable variable demand length charges for the billing period for the nominated CMD

Notes:

1. The ENUC does not include the metering or administration components of the tariff.

3.6 Reference Tariff 8 (RT8)

3.6.1 Tariff Calculation

Reference Tariff RT8 consists of:

- (a) If the contracted maximum demand (CMD) is less than 7,000 kVA:
 - i. a fixed demand charge for the first 1,000 kVA (detailed in Table 6) which is payable each day; plus
 - ii. a variable demand charge calculated by multiplying the applicable demand price (detailed in Table 6) by the CMD at an exit point (expressed in kVA) minus 1,000 kVA; plus
 - iii. a variable demand length charge calculated by multiplying the demand length price (detailed in Table 7) by the electrical distance to the zone substation by the CMD (expressed in kVA) minus 1,000 kVA (Note: a different rate applies after 10 km);
- (b) If the CMD is equal to or greater than 7,000 kVA:
 - i. a variable demand charge calculated by multiplying the applicable demand price (detailed in Table 6) by the CMD at an exit point (expressed in kVA); plus
 - ii. a variable demand length charge calculated by multiplying the demand length price (detailed in Table 8) by the electrical distance to the zone substation by the CMD (expressed in kVA) (Note: a different rate applies after 10 km);
- (c) a fixed low voltage charge (detailed in Table 11) which is payable each day;
- (d) a variable low voltage charge calculated by multiplying the low voltage demand price (detailed in Table 11) by the CMD at an exit point (expressed in kVA);
- (e) a fixed metering charge per revenue meter (detailed in Table 9) which is payable each day;
- (f) a fixed administration charge (detailed in Table 10) which is payable each day; and
- (g) excess network usage charges (if applicable).

Notes:

1. This tariff is identical to the Reference Tariff 7 - (RT7) in section 3.5, with an additional low voltage charge to cover the use of transformers and LV circuits.

3.6.2 Excess Network Usage Charges

An additional charge applies to this tariff where the peak half-hourly demand exceeds the nominated CMD during the billing period of the load.

The excess network usage charge (ENUC) is calculated by applying a factor to the excess usage as follows:

$$\text{ENUC} = \text{ENUC}_{\text{Transmission}} + \text{ENUC}_{\text{Distribution}}$$

Where

$$\text{ENUC}_{\text{Transmission}} = \text{ENUM} * (\text{PD} - \text{CMD}) * \text{DC}_{\text{Transmission}} / \text{CMD}$$

$$\text{ENUC}_{\text{Distribution}} = \text{ENUM} * (\text{PD} - \text{CMD}) * (\text{DC}_{\text{Distribution}} + \text{DLC} + \text{LVC}) / \text{CMD}$$

ENUM is the Excess network usage multiplier factor, which is set at 2

PD is the peak half-hourly demand during the billing period of the load (expressed in kVA)

CMD is the nominated CMD for the billing period of the load (expressed in kVA)

DC_{Transmission} are the applicable transmission components of the fixed and variable demand charges for the billing period for the nominated CMD

DC_{Distribution} are the applicable distribution components of the fixed and variable demand charges for the billing period for the nominated CMD

DLC are the applicable variable demand length charges for the billing period for the nominated CMD

LVC are the applicable additional fixed and additional demand (low voltage) charges for the billing period for the nominated CMD

Notes:

1. The ENUC does not include the metering or administration components of the tariff.

3.7 Reference Tariff 9 (RT9)

Reference Tariff RT9 consists of:

- (a) a fixed use of system charge (detailed in Table 1) which is payable each day;
- (b) a variable use of system charge calculated by multiplying the energy price (detailed in Table 1) by the estimated quantity of electricity consumed at an exit point (expressed in kWh and is based on the lamp wattage and illumination period); and
- (c) a fixed asset charge based on the type of streetlight asset supplied (detailed in Table 2 – Current light types and Table 3 – Obsolete light types).

3.8 Reference Tariff 10 (RT10)

Reference Tariff RT10 consists of:

- (a) a fixed use of system charge (detailed in Table 1) which is payable each day; and
- (b) a variable use of system charge calculated by multiplying the energy price (detailed in Table 1) by the estimated quantity of electricity consumed at an exit point (expressed in kWh and based on the nameplate rating of the connected equipment and the hours of operation).

3.9 Reference Tariff 11 (RT11)

3.9.1 Tariff Calculation

Reference Tariff RT11 consists of:

- (a) a variable connection charge calculated by multiplying the connection price (detailed in Table 12) by the loss-factor adjusted declared sent-out capacity (DSOC) at the entry point (expressed in kW);
- (b) a variable control system service charge calculated by multiplying the control system service price (detailed in Table 16) by the nameplate output of the generator at the entry point (expressed in kW);
- (c) a variable use of system charge calculated by multiplying the use of system price (based on the location of the electrically closest major generator and detailed in Table 14) by the loss-factor adjusted DSCO at the entry point (expressed in kW);
- (d) If the DSOC is less than 7,000 kVA:
 - i. if the entry point is connected at 415 V or less and the DSOC is equal to or greater than 1,000 kVA a variable demand length charge calculated by multiplying the applicable demand length price (detailed in Table 7) by the electrical distance between the relevant HV network connection point and the electrically closest zone substation by the DSOC (expressed in kVA) minus 1,000 kVA (Note: a different rate applies after 10 km); or
 - ii. if the entry point is connected at greater than 415 V and the DSOC is equal to or greater than 1,000 kVA a variable demand length charge calculated by multiplying the applicable demand length price (detailed in Table 7) by the electrical distance between the entry point and the electrically closest zone substation by the DSOC (expressed in kVA) minus 1,000 kVA (Note: a different rate applies after 10 km);
- (e) If the DSOC is equal to or greater than 7,000 kVA:
 - i. if the entry point is connected at 415 V or less a variable demand length charge calculated by multiplying the applicable demand length price (detailed in Table 8) by the electrical distance between the relevant HV network connection point and the electrically closest zone substation by the DSOC (expressed in kVA) (Note: a different rate applies after 10 km); or
 - ii. if the entry point is connected at greater than 415 V a variable demand length charge calculated by multiplying the applicable demand length price (detailed in Table 8) by the electrical distance between the entry point and the electrically closest zone substation by the DSOC (expressed in kVA) (Note: a different rate applies after 10 km);
- (f) a fixed metering charge per revenue meter (detailed in Table 9) which is payable each day; and
- (g) excess network usage charges (if applicable).

Notes:

1. The loss factor used to calculate the loss-factor adjusted DSOCa is the relevant portion from the generator to the zone substation of the loss factor published by the IMO for that generator.
2. For this reference tariff a unity power factor is assumed when converting between kW and kVA.

3.9.2 Excess Network Usage Charges

An additional charge applies to this tariff where the peak half-hourly demand exceeds the nominated DSOC during the billing period except where Western Power deems the export of power in excess of DSOC was required for power system reliability and security purposes.

The excess network usage charge (ENUC) is calculated by applying a factor to the excess usage as follows:

$$\text{ENUC} = \text{ENUC}_{\text{Transmission}} + \text{ENUC}_{\text{Distribution}}$$

Where

$$\text{ENUC}_{\text{Transmission}} = \text{ENUM} * (\text{PD}_{\text{kW}} - \text{DSOC}_{\text{kW}}) * \text{TEPC} / \text{DSOC}_{\text{kW}}$$

$$\text{ENUC}_{\text{Distribution}} = \text{ENUM} * (\text{PD}_{\text{kVA}} - \text{DSOC}_{\text{kVA}}) * (\text{DLC}) / \text{DSOC}_{\text{kVA}}$$

ENUM is the Excess network usage multiplier factor, which is set at 2

PD is the peak half-hourly demand during the billing period (expressed in kVA and kW)

DSOC is the nominated DSOC for the billing period (expressed in kVA and kW)

TEPC is the sum of the variable connection charge, variable control system service charge and variable use of system charge for the billing period for the nominated DSOC

DLC is the applicable variable demand length charge for the billing period for the nominated DSOC

Notes:

1. The ENUC does not include the metering components of the tariff.

3.10 Reference Tariff 12 (RT12)

This tariff has been deleted and will not appear in future Price Lists.

3.11 Reference Tariffs 13 and 14 (RT13 and RT14)

Reference Tariffs RT13 and RT14 consist of:

- (a) a fixed use of system charge (detailed in Table 1) which is payable each day;
- (b) a variable use of system charge calculated by multiplying the energy price (detailed in Table 1) by the quantity of electricity consumed at an exit point (expressed in kWh);
- (c) a fixed metering charge per revenue meter (detailed in Table 1) which is payable each day; and
- (d) a variable metering charge calculated by multiplying the variable price (detailed in Table 1) by the quantity of electricity consumed at an exit point (expressed in kWh).

3.12 Reference Tariffs 15 and 16 (RT15 and RT16)

Reference Tariffs RT15 and RT16 consist of:

- (a) a fixed use of system charge (detailed in Table 1) which is payable each day;
- (b) an on-peak use of system variable charge calculated by multiplying the on-peak energy price (detailed in Table 1) by the quantity of on-peak electricity consumed at an exit point (expressed in kWh);
- (c) an off-peak use of system variable charge calculated by multiplying the off-peak energy price (detailed in Table 1) by the quantity of off-peak electricity consumed at an exit point (expressed in kWh);
- (d) a fixed metering charge per revenue meter (detailed in Table 1) which is payable each day;
- (e) an on-peak variable metering charge calculated by multiplying the on-peak variable price (detailed in Table 1) by the quantity of on-peak electricity consumed at an exit point (expressed in kWh); and
- (f) an off-peak variable metering charge calculated by multiplying the off-peak variable price (detailed in Table 1) by the quantity of off-peak electricity consumed at an exit point (expressed in kWh).

Notes:

1. The on and off peak periods for these tariffs are defined in the following table (all times are Western Standard Time (WST)):

	Monday – Friday (includes public holidays)			Saturday - Sunday
	Off-peak	On-Peak	Off-Peak	Off-Peak
RT15	12:00am – 7:00am	7:00am – 9:00pm	9:00pm – 12:00am	All times
RT16	12:00am – 8:00am	8:00am – 10:00pm	10:00pm – 12:00am	All times

4 TRANSMISSION TARIFF APPLICATION GUIDE

4.1 Transmission Reference Tariff 1 (TRT1)

4.1.1 Tariff Calculation

Reference Tariff TRT1 consists of:

- (a) a User-specific charge that is to be an amount per day which reflects the costs to Western Power of providing the Connection Assets under an Access Contract, which may consist of capital and non-capital costs.
- (b) a variable use of system charge calculated by multiplying the applicable use of system price (detailed in Table 13) by the contracted maximum demand (CMD) at the exit point (expressed in kW);
- (c) a variable common service charge calculated by multiplying the common service price (detailed in Table 15) by the CMD at the exit point (expressed in kW);
- (d) a variable control system service charge calculated by multiplying the control system service price (detailed in Table 17) by the CMD at the exit point (expressed in kW);
- (e) a fixed metering charge per revenue meter (detailed in Table 18) which is payable each day; and
- (f) excess network usage charges (if applicable).

4.1.2 Excess Network Usage Charges

An additional charge applies to this tariff where the peak half-hourly demand exceeds the nominated CMD during the billing period of the load.

The excess network usage charge (ENUC) is calculated by applying a factor to the excess usage as follows:

$$\text{ENUC} = \text{ENUM} * (\text{PD} - \text{CMD}) * (\text{UOS} + \text{CON} + \text{CS} + \text{CSS}) / \text{CMD}$$

Where

ENUM	is the Excess network usage multiplier factor, which is set at 2
PD	is the peak half-hourly demand during the billing period of the load (expressed in kW)
CMD	is the nominated CMD for the billing period of the load (expressed in kW)
UOS	is the applicable variable use of system charge for the billing period for the nominated CMD
CON	is the applicable User-specific charge for the billing period
CS	is the applicable variable common service charge for the billing period for the nominated CMD
CSS	is the applicable variable control system service charge for the billing period for the nominated CMD

Notes:

1. The ENUC does not include the metering components of the tariff.

4.2 Transmission Reference Tariff 2 (TRT2)

4.2.1 Tariff Calculation

Reference Tariff TRT2 consists of:

- (a) a User-specific charge that is to be an amount per day which reflects the costs to Western Power of providing the Connection Assets under an Access Contract, which may consist of capital and non-capital costs.
- (b) a variable use of system charge calculated by multiplying the applicable use of system price (detailed in Table 14) by the declared sent-out capacity (DSOC) at the entry point (expressed in kW);
- (c) a variable control system service charge calculated by multiplying the control system service price (detailed in Table 16) by the nameplate output of the generator at the entry point (expressed in kW);
- (d) a fixed metering charge per revenue meter (detailed in Table 18) which is payable each day; and
- (e) excess network usage charges (if applicable).

4.2.2 Excess Network Usage Charges

An additional charge applies to this tariff where the peak half-hourly demand exceeds the nominated DSOC during the billing period except where Western Power deems the export of power in excess of DSOC was required for power system reliability and security purposes.

The excess network usage charge (ENUC) is calculated by applying a factor to the excess usage as follows:

$$\text{ENUC} = \text{ENUM} * (\text{PD} - \text{DSOC}) * (\text{UOS} + \text{CON} + \text{CSS}) / \text{DSOC}$$

Where

ENUM	is the Excess network usage multiplier factor, which is set at 2
PD	is the peak half-hourly demand during the billing period (expressed in kW)
DSOC	is the nominated DSOC for the billing period (expressed in kW)
UOS	is the applicable variable use of system charge for the billing period for the nominated DSOC
CON	is the applicable User-specific charge for the billing period
CSS	is the applicable variable control system service charge for the billing period

Notes:

1. The ENUC does not include the metering components of the tariff.

5 PRICE TABLES¹

The tables in the following sections must be used in conjunction with the details in the sections above.

Table 6, Table 13 and Table 14 include a Transmission Node Identity (TNI) to uniquely identify zone substations. The TNIs meet the standard defined by the AEMO for WA².

All prices quoted in this Price List are **GST exclusive**.

5.1 Prices for energy-based tariffs on the distribution network

5.1.1 Use of system and metering prices

The prices in the following tables are applicable for reference tariffs: **RT1, RT2, RT3, RT4, RT9, RT10, RT13, RT14, RT15 and RT16**.

Table 1

	Fixed Price	Energy Rates		
	c/day	c/kWh	On Peak c/kWh	Off Peak c/kWh
Reference tariff 1 - RT1				
Transmission Use of System	0.000	2.389	-	-
Distribution Use of System	56.659	6.216	-	-
Bundled Use of System Charges	56.659	8.605	-	-
Metering Charges	2.586	0.487	-	-
Reference tariff 2 - RT2				
Transmission Use of System	0.000	2.999	-	-
Distribution Use of System	79.528	7.910	-	-
Bundled Use of System Charges	79.528	10.908	-	-
Metering Charges	2.586	0.487	-	-
Reference tariff 3 - RT3				
Transmission Use of System	0.000	-	4.238	0.890
Distribution Use of System	58.619	-	10.637	2.477
Bundled Use of System Charges	58.619	-	14.875	3.367
Metering Charges	2.586	-	0.545	0.545
Reference tariff 4 - RT4				
Transmission Use of System	0.000	-	3.442	0.830
Distribution Use of System	71.895	-	9.725	2.186
Bundled Use of System Charges	71.895	-	13.167	3.016
Metering Charges	5.172	-	0.108	0.108
Reference tariff 9 - RT9				
Transmission Use of System	0.000	1.482	-	-
Distribution Use of System	5.936	2.967	-	-
Bundled Use of System Charges	5.936	4.448	-	-
Reference tariff 10 - RT10				

¹ Note: these tables have been slightly re-designed for 2012/13.

² Australian Energy Market Operator, 9 January 2009, Operating Procedure – NEM Transmission Node Identities (TNI), p. 5

Transmission Use of System	0.000	0.932	-	-
Distribution Use of System	47.226	2.819	-	-
Bundled Use of System Charges	47.226	3.751	-	-
Reference tariff 13 – RT13				
Transmission Use of System	0.000	2.389	-	-
Distribution Use of System	56.659	6.216	-	-
Bundled Use of System Charges	56.659	8.605	-	-
Metering Charges	2.586	0.487		
Reference tariff 14 – RT14				
Transmission Use of System	0.000	2.999	-	-
Distribution Use of System	79.528	7.910	-	-
Bundled Use of System Charges	79.528	10.908	-	-
Metering Charges	2.586	0.487		
Reference tariff 15 – RT15				
Transmission Use of System	0.000	-	4.238	0.890
Distribution Use of System	58.619	-	10.637	2.477
Bundled Use of System Charges	58.619	-	14.875	3.367
Metering Charges	2.586	-	0.545	0.545
Reference tariff 16 – RT16				
Transmission Use of System	0.000	-	3.442	0.830
Distribution Use of System	71.895	-	9.725	2.186
Bundled Use of System Charges	71.895	-	13.167	3.016
Metering Charges	5.172	-	0.108	0.108

5.1.2 Streetlight asset prices

The prices in the following table are applicable for reference tariff: **RT9**.

Table 2 – Current light types

Light Specification	Daily Charge c/day
42W CFL SE	27.582
42W CFL BH	29.314
42W CFL KN	33.034
70W MH	48.215
70W HPS	23.713
125W MV	28.702
150W MH	55.706
150W HPS	31.194
250W MH	55.706
250W HPS	31.194

Table 3 – Obsolete light types

Light Specification	Daily Charge c/day
50W MV	17.152
60W MV	17.152
70W MV	23.086
80W MV	23.086
150W MV	28.702
250W MV	37.442
400W MV	39.312
40W FLU	17.152
80W HPS	23.713
125W HPS	31.194
60W INC	17.152
100W INC	17.152
80W MH	23.086
125W MH	55.706
250W LPS	31.194

5.2 Prices for demand-based tariffs on the distribution network (RT5 to RT8 and RT11³)

5.2.1 Demand charges

The prices in the following table are applicable for reference tariff: **RT5**.

Table 4

Demand (kVA) (Lower to upper threshold)	Transmission		Distribution		Bundled Tariff	
	Fixed c/day	Demand (in excess of lower threshold) c/kVA/day	Fixed c/day	Demand (in excess of lower threshold) c/kVA/day	Fixed c/day	Demand (in excess of lower threshold) c/kVA/day
0 to 300	0.000	29.881	94.872	40.416	94.872	70.297
300 to 1000	8,964.300	22.121	12,219.672	30.100	21,183.972	52.221
1000 to 1500	24,449.000	12.638	33,289.672	12.662	57,738.672	25.300

The prices in the following table are applicable for reference tariff: **RT6**.

Table 5

Demand (kVA) (Lower to upper threshold)	Transmission		Distribution		Bundled Tariff	
	Fixed c/day	Demand (in excess of lower threshold) c/kVA/day	Fixed c/day	Demand (in excess of lower threshold) c/kVA/day	Fixed c/day	Demand (in excess of lower threshold) c/kVA/day
0 to 300	0.000	29.881	727.404	46.114	727.404	75.995
300 to 1000	8,964.300	22.121	14,561.604	35.798	23,525.904	57.919
1000 to 1500	24,449.000	12.638	39,620.204	17.732	64,069.204	30.370

³ Note that some components of RT11 are in section 5.3

The prices in the following table are applicable for reference tariffs: **RT7 and RT8.**

Table 6

Zone Substation	TNI	Pricing Zone	Transmission			Distribution			Bundled		
			Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)
Cook Street	WCKT	CBD	16,719.091	22.035	21.276	28,047.245	4.121	7.539	44,766.336	26.156	28.815
Forrest Avenue	WFRT	CBD	16,719.091	22.035	21.276	28,047.245	4.121	7.539	44,766.336	26.156	28.815
Hay Street	WHAY	CBD	16,719.091	22.035	21.276	28,047.245	4.121	7.539	44,766.336	26.156	28.815
Milligan Street	WMIL	CBD	16,719.091	22.035	21.276	28,047.245	4.121	7.539	44,766.336	26.156	28.815
Wellington Street	WWNT	CBD	16,719.091	22.035	21.276	28,047.245	4.121	7.539	44,766.336	26.156	28.815
Black Flag	WBKF	Goldfields Mining	16,719.091	43.454	39.635	28,047.245	3.398	6.919	44,766.336	46.852	46.554
Boulder	WBLD	Goldfields Mining	16,719.091	39.895	36.584	28,047.245	3.398	6.919	44,766.336	43.292	43.503
Bounty	WBNY	Goldfields Mining	16,719.091	81.159	71.953	28,047.245	3.398	6.919	44,766.336	84.556	78.872
West Kalgoorlie	WWKT	Goldfields Mining	16,719.091	37.358	34.410	28,047.245	3.398	6.919	44,766.336	40.756	41.329
Albany	WALB	Mixed	16,719.091	37.660	34.669	28,047.245	8.948	11.677	44,766.336	46.609	46.345
Boddington	WBOD	Mixed	16,719.091	20.315	19.802	28,047.245	8.948	11.677	44,766.336	29.264	31.478
Bunbury Harbour	WBUH	Mixed	16,719.091	19.934	19.475	28,047.245	8.948	11.677	44,766.336	28.882	31.152
Busselton	WBSN	Mixed	16,719.091	33.171	30.820	28,047.245	8.948	11.677	44,766.336	42.119	42.497
Byford	WBYF	Mixed	16,719.091	21.299	20.645	28,047.245	8.948	11.677	44,766.336	30.247	32.321
Capel	WCAP	Mixed	16,719.091	27.942	26.339	28,047.245	8.948	11.677	44,766.336	36.890	38.015
Chapman	WCPN	Mixed	16,719.091	41.125	37.638	28,047.245	8.948	11.677	44,766.336	50.073	49.315
Darlington	WDTN	Mixed	16,719.091	23.012	22.113	28,047.245	8.948	11.677	44,766.336	31.960	33.789
Durlacher Street	WDUR	Mixed	16,719.091	36.391	33.580	28,047.245	8.948	11.677	44,766.336	45.339	45.257
Eneabba	WENB	Mixed	16,719.091	33.328	30.955	28,047.245	8.948	11.677	44,766.336	42.277	42.632
Geraldton	WGTN	Mixed	16,719.091	36.391	33.580	28,047.245	8.948	11.677	44,766.336	45.339	45.257
Marriott Road	WMRR	Mixed	16,719.091	19.971	19.507	28,047.245	8.948	11.677	44,766.336	28.920	31.184
Muchea	WMUC	Mixed	16,719.091	23.792	22.781	28,047.245	8.948	11.677	44,766.336	32.740	34.458
Northam	WNOR	Mixed	16,719.091	33.047	30.715	28,047.245	8.948	11.677	44,766.336	41.996	42.392
Picton	WPIC	Mixed	16,719.091	22.334	21.532	28,047.245	8.948	11.677	44,766.336	31.282	33.208
Rangeway	WRAN	Mixed	16,719.091	36.391	33.580	28,047.245	8.948	11.677	44,766.336	45.339	45.257
Sawyers Valley	WSVL	Mixed	16,719.091	33.755	31.321	28,047.245	8.948	11.677	44,766.336	42.703	42.998
Yanchep	WYCP	Mixed	16,719.091	22.725	21.867	28,047.245	8.948	11.677	44,766.336	31.673	33.544
Yilgarn	WYLN	Mixed	16,719.091	35.592	32.896	28,047.245	8.948	11.677	44,766.336	44.540	44.572
Baandee	WBDE	Rural	16,719.091	46.681	42.401	28,047.245	4.081	7.505	44,766.336	50.762	49.905
Beenup	WBNP	Rural	16,719.091	49.803	45.077	28,047.245	4.081	7.505	44,766.336	53.884	52.581
Bridgetown	WBTN	Rural	16,719.091	29.509	27.682	28,047.245	4.081	7.505	44,766.336	33.589	35.186
Carrabin	WCAR	Rural	16,719.091	53.490	48.237	28,047.245	4.081	7.505	44,766.336	57.571	55.742
Collie	WCOE	Rural	16,719.091	35.809	33.081	28,047.245	4.081	7.505	44,766.336	39.889	40.586
Coolup	WCLP	Rural	16,719.091	40.041	36.710	28,047.245	4.081	7.505	44,766.336	44.122	44.214
Cunderdin	WCUN	Rural	16,719.091	42.779	39.056	28,047.245	4.081	7.505	44,766.336	46.860	46.561
Katanning	WKAT	Rural	16,719.091	37.342	34.396	28,047.245	4.081	7.505	44,766.336	41.423	41.900
Kellerberrin	WKEL	Rural	16,719.091	45.394	41.297	28,047.245	4.081	7.505	44,766.336	49.474	48.802
Kojonup	WKOJ	Rural	16,719.091	24.890	23.723	28,047.245	4.081	7.505	44,766.336	28.971	31.228
Kondinin	WKDN	Rural	16,719.091	27.874	26.280	28,047.245	4.081	7.505	44,766.336	31.954	33.785

Zone Substation	TNI	Pricing Zone	Transmission			Distribution			Bundled		
			Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)
Manjimup	WMJP	Rural	16,719.091	29.256	27.465	28,047.245	4.081	7.505	44,766.336	33.337	34.970
Margaret River	WMRV	Rural	16,719.091	44.735	40.733	28,047.245	4.081	7.505	44,766.336	48.816	48.238
Merredin	WMER	Rural	16,719.091	40.939	37.479	28,047.245	4.081	7.505	44,766.336	45.020	44.983
Moora	WMOR	Rural	16,719.091	15.498	15.672	28,047.245	4.081	7.505	44,766.336	19.579	23.177
Mount Barker	WMBR	Rural	16,719.091	32.258	30.038	28,047.245	4.081	7.505	44,766.336	36.339	37.543
Narrogin	WNGN	Rural	16,719.091	35.728	33.012	28,047.245	4.081	7.505	44,766.336	39.809	40.517
Pinjarra	WPNJ	Rural	16,719.091	46.363	42.128	28,047.245	4.081	7.505	44,766.336	50.443	49.632
Regans	WRGN	Rural	16,719.091	21.722	21.007	28,047.245	4.081	7.505	44,766.336	25.803	28.512
Three Springs	WTSG	Rural	16,719.091	32.152	29.947	28,047.245	4.081	7.505	44,766.336	36.233	37.452
Wagerup	WWGP	Rural	16,719.091	32.647	30.371	28,047.245	4.081	7.505	44,766.336	36.728	37.876
Wagin	WWAG	Rural	16,719.091	20.252	19.747	28,047.245	4.081	7.505	44,766.336	24.333	27.252
Wundowie	WWUN	Rural	16,719.091	34.097	31.615	28,047.245	4.081	7.505	44,766.336	38.178	39.119
Yerbillon	WYER	Rural	16,719.091	35.079	32.456	28,047.245	4.081	7.505	44,766.336	39.160	39.961
Amherst	WAMT	Urban	16,719.091	52.027	46.983	28,047.245	4.081	7.505	44,766.336	56.108	54.487
Arkana	WARK	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Australian Paper Mills	WAPM	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Beechboro	WBCH	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Belmont	WBEL	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Bentley	WBTY	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Bibra Lake	WBIB	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
British Petroleum	WBPM	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Canning Vale	WCVE	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Clarence Street	WCLN	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Clarkson	WCKN	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Cockburn Cement	WCCT	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Collier	WCOL	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Cottesloe	WCOT	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Edmund Street	WEDD	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Forrestfield	WFFD	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Gosnells	WGNL	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Hadfields	WHFS	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Hazelmere	WHZM	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Henley Brook	WHBK	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Herdsmen Parade	WHEP	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Joel Terrace	WJTE	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Joondalup	WJDP	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Joondanna	WJDA	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Kalamunda	WKDA	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Kambalda	WKBA	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Kewdale	WKDL	Urban	16,719.091	39.895	36.584	28,047.245	0.735	4.636	44,766.336	40.629	41.220
Landsdale	WLDE	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651

Zone Substation	TNI	Pricing Zone	Transmission			Distribution			Bundled		
			Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)
Malaga	WMLG	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Mandurah	WMHA	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Manning Street	WMAG	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Mason Road	WMSR	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Meadow Springs	WMSS	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Medical Centre	WMCR	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Medina	WMED	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Midland Junction	WMJX	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Morley	WMOY	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Mullaloo	WMUL	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Mundaring Weir	WMWR	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Murdoch	WMUR	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Myaree	WMYR	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Nedlands	WNED	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
North Beach	WNBH	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
North Fremantle	WNFL	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
North Perth	WNPH	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
OConnor	WOCN	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Osborne Park	WOPK	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Padbury	WPBY	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Piccadilly	WPCY	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Riverton	WRTN	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Rivervale	WRVE	Urban	16,719.091	38.352	35.261	28,047.245	0.735	4.636	44,766.336	39.086	39.898
Rockingham	WROH	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Shenton Park	WSPA	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Sth Ftle Power Station	WSFT	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Southern River	WSNR	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Tate Street	WTTS	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
University	WUNI	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Victoria Park	WVPA	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Waikiki	WWAI	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Wanneroo	WWNO	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Welshpool	WWEL	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Wembley Downs	WWDN	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Willeton	WWLN	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651
Yokine	WYKE	Urban	16,719.091	22.898	22.015	28,047.245	0.735	4.636	44,766.336	23.632	26.651

5.2.2 Demand length charges

The prices in the following table are applicable for reference tariffs: **RT5, RT6, RT7, RT8 and RT11** and the CMD/DSOC is between 1,000 and 7,000 kVA.

Table 7

Pricing Zone	Demand-Length Charge	
	For kVA >1000 and first 10 km length (c/kVA.km/day)	For kVA >1000 and length in excess of 10 km (c/kVA.km/day)
CBD	0.000	0.000
Urban	1.093	0.765
Mining	0.235	0.164
Mixed	0.537	0.376
Rural	0.373	0.261

The prices in the following table are applicable for reference tariffs: **RT7, RT8 & RT11** and the CMD/DSOC is at least 7,000 kVA.

Table 8

Pricing Zone	Demand-Length Charge	
	For first 10 km length (c/kVA.km/day)	For length in excess of 10 km (c/kVA.km/day)
CBD	0.000	0.000
Urban	0.937	0.656
Mining	0.201	0.141
Mixed	0.460	0.322
Rural	0.320	0.224

5.2.3 Metering prices

The prices in the following table are applicable for reference tariffs: **RT5, RT6, RT7, RT8 and RT11**.

Table 9

Metering Equipment Funding	Voltage	c/revenue meter/day
Western Power funded	High Voltage (6.6 kV or higher)	821.698
	Low voltage (415 volts or less)	148.063
Customer funded	High Voltage (6.6 kV or higher)	290.234
	Low Voltage (415 volts or less)	52.298

5.2.4 Administration charges

The prices in the following table are applicable for reference tariffs: **RT7 and RT8**.

Table 10

CMD	Price (c/day)
>=7,000 kVA	5,903.520
<7,000 kVA	3,390.408

5.2.5 LV Prices

The prices in the following table are applicable for reference tariff: **RT8**.

Table 11

Category	Price (c/day)
Fixed	701.842
Demand	7.397/kVA

5.2.6 Connection Price

The prices in the following table are applicable for reference tariff: **RT11**.

Table 12

	Connection Price c/kW/day
Connection Price	8.179

5.3 Transmission prices

5.3.1 Use of system prices

The prices in the following table are applicable for reference tariff: **TRT1**.

Table 13

Substation	TNI	Use of System Price c/kW/day
Albany	WALB	20.893
Alcoa Pinjarra	WAPJ	9.363
Amherst	WAMT	5.464
Arkana	WARK	7.205
Australian Fused Materials	WAFM	4.239
Australian Paper Mills	WAPM	7.924
Baandee (WC)	WBDE	28.405
Beckenham	WBEC	19.644
Beechboro	WBCH	6.587
Beenup	WBNP	31.249
Belmont	WBEL	5.527
Bentley	WBTY	10.170

Substation	TNI	Use of System Price c/kW/day
Bibra Lake	WBIB	7.230
Binningup Desalination Plant	WBDP	4.472
Black Flag	WBKF	26.260
Boddington Gold	WBOD	4.791
Boddington (Local)	WABD	4.791
Boddington Reynolds	WRBD	4.656
Boulder	WBLD	22.956
Bounty	WBNY	61.253
Bridgetown	WBTN	12.762
British Petroleum	WBPM	8.846
Broken Hill Kwinana	WBHK	7.796
Bunbury Harbour	WBUH	4.437
Busselton	WBSN	16.725
Byford	WBYF	5.704
Canning Vale	WCVE	4.900
Capel	WCAP	11.871
Carrabin	WCAR	34.607
Cataby Kerr McGee	WKMC	15.170
Chapman	WCPN	24.109
Clarence Street	WCLN	11.282
Clarkson	WCKN	7.767
Cockburn Cement	WCCT	4.158
Cockburn Cement Ltd	WCCL	4.147
Collie	WCOE	18.501
Collier	WCOL	11.544
Cook Street	WCKT	7.806
Coolup	WCLP	22.357
Cottesloe	WCTE	10.268
Cunderdin	WCUN	24.851
Darlington	WDTN	7.294
Edgewater	WEDG	7.238
Edmund Street	WEDD	8.651
Eneabba	WENB	16.871
Forrest Ave	WFRT	11.624
Forrestfield	WFFD	6.993
Geraldton	WGTN	19.714
Glen Iris	WGNI	4.893
Golden Grove	WGGV	48.234
Gosnells	WGNL	5.309
Hadfields	WHFS	7.200
Hay Street	WHAY	8.997
Hazelmere	WHZM	6.114
Henley Brook	WHBK	6.648
Herdsmen Parade	WHEP	12.713
Joel Terrace	WJTE	10.302
Joondalup	WJDP	7.660
Kalamunda	WKDA	6.899
Katanning	WKAT	19.898
Kellerberrin	WKEL	27.232
Kojonup	WKOJ	8.556

Substation	TNI	Use of System Price c/kW/day
Kondinin	WKDN	11.273
Kwinana Alcoa	WAKW	1.675
Kwinana Desalination Plant	WKDP	4.356
Kwinana PWS	WKPS	4.006
Landsdale	WLDE	6.733
Malaga	WMLG	5.722
Mandurah	WMHA	6.349
Manjimup	WMJP	12.533
Manning Street	WMAG	8.240
Margaret River	WMRV	26.633
Marriott Road Barrack Silicon Smelter	WBSI	5.107
Marriott Road (Local)	WLMR	4.472
Mason Road	WMSR	2.667
Mason Road CSBP	WCBP	4.760
Mason Road Hismelt	WHIS	10.421
Mason Road Kerr McGee	WKMK	2.667
Meadow Springs	WMSS	5.901
Medical Centre	WMCR	11.129
Medina	WMED	3.826
Merredin 66kV	WMER	23.174
Midland Junction	WMJX	7.797
Milligan Street	WMIL	10.191
Moorabool	WMOR	15.267
Morley	WMOY	8.256
Mt Barker	WMBR	18.428
Muchea Kerr McGee	WKMM	12.110
Muchea (Local)	WLMC	8.018
Muja PWS	WMPS	2.091
Mullaloo	WMUL	7.660
Murdoch	WMUR	4.772
Mundaring Weir	WMWR	12.488
Myaree	WMYR	9.642
Narrogin	WNGN	28.115
Nedlands	WNED	10.236
North Beach	WNBH	8.139
North Fremantle	WNFL	10.017
North Perth	WNPH	6.051
Northam	WNOR	16.611
O'Connor	WOCN	8.530
Osborne Park	WOPK	8.078
Padbury	WPBY	7.660
Parkeston	WPRK	24.473
Parklands	WPLD	6.161
Piccadilly	WPCY	21.940
Picton 66kv	WPIC	6.665
Pinjarra	WPNJ	5.670
Rangeway	WRAN	19.714
Regans	WRGN	15.170
Riverton	WRTN	5.135
Rivervale	WRVE	11.063

Substation	TNI	Use of System Price c/kW/day
Rockingham	WROH	5.132
Sawyers Valley	WSVL	17.267
Shenton Park	WSPA	9.466
Southern River	WSNR	5.636
South Fremantle 22kV	WSFT	6.112
Summer St	WSUM	13.928
Tate Street	WTTS	9.763
Three Springs	WTSG	15.621
Tomlinson Street	WTLN	10.895
University	WUNI	12.130
Victoria Park	WVPA	9.476
Wagerup	WWGP	4.331
Wagin	WWAG	16.942
Waikiki	WWAI	5.394
Wangara	WWGA	7.660
Wanneroo	WWNO	7.309
WEB Grating	WWEB	51.754
Wellington Street	WWNT	11.627
Welshpool	WWEL	5.592
Wembley Downs	WWDN	9.755
West Kalgoorlie	WWKT	20.603
Western Collieries	WWCL	2.611
Western Mining	WWMG	3.337
Westralian Sands	WWSD	10.367
Willeton	WWLN	4.900
Worsley	WWOR	3.667
Wundowie	WWUN	17.837
Yanchep	WYCP	7.028
Yerbillon	WYER	33.274
Yilgarn	WYLN	18.973
Yokine	WYKE	7.873

The prices in the following table are applicable for reference tariffs: **RT11 and TRT2**.

Table 14

Substation	TNI	Use of System c/kW/day
Albany Windfarm	WALB	3.160
Boulder	WBLD	2.814
Bluewaters	WBWP	3.909
Cockburn PWS	WCKB	1.966
Collgar	WCGW	3.263
Collie PWS	WCPS	3.514
Emu Downs	WEMD	3.435
Geraldton GT	WGTD	0.665
Kemerton PWS	WKEM	3.160
Kwinana Alcoa	WAKW	2.168
Kwinana Donaldson Road (Western Energy)	WKND	1.856
Kwinana PWS	WKPS	1.966
Landweir (Alinta)	WLWT	2.913
Mason Road	WMSR	1.856
Mason Road Hismelt	WHIS	1.611
Muja PWS	WMPS	3.485
Mungarra GTs	WMGA	3.792
Newgen Kwinana	WNGK	2.506
Newgen Neerabup	WGNN	1.876
Oakley (Alinta)	WOLY	3.290
Parkeston	WPKS	3.392
Pinjar GTs	WPJR	1.892
Alcoa Pinjarra	WAPJ	3.454
Tiwest GT	WKMK	1.917
Wagerup Alcoa	WAWG	2.479
Walkaway Windfarm	WWWF	4.114
West Kalgoorlie GTs	WWKT	3.042
Worsley	WWOR	3.216

5.3.2 Common Service Prices

The prices in the following table are applicable for reference tariff: **TRT1**.

Table 15

	Common Service Price c/kW/day
Common Service Price	7.214

5.3.3 Control System Service Prices

The prices in the following table are applicable for reference tariffs: **RT11 and TRT2**.

Table 16

	Price (c/kW/day)
Control System Service Price (Generators)	0.168

The prices in the following table are applicable for reference tariff: **TRT1**.

Table 17

	Price (c/kW/day)
Control System Service Price (Loads)	1.263

5.3.4 Metering prices

The prices in the following table are applicable for reference tariffs: **TRT1 and TRT2**.

Table 18

	c/metering unit/day
Transmission Metering	4,233.137

6 NON REFERENCE SERVICE TARIFFS

The fees listed below are referred to in the Applications and Queuing Policy and the Standard Access Contract. Western Power treats these as non-reference services and notes that the list of tariffs included in this section does not include tariffs for all non-reference services provided by Western Power.

All prices quoted in this Price List are **GST exclusive**.

6.1 Lodgement Fees under the Application and Queuing Policy

Table 19

Lodgement Fee	Price
New Standard Access Contract Fee	\$1,150.00
Access Contract Modification Fee	\$140.00 per modification
Transmission Enquiry Application Fee	\$3,500.00
Transmission Connection Application Fee	\$5,000.00
Distribution Connection Application Fee	\$2,500.00

Table 20

Application for Reference Service	New Connection Point Fee
A1 – Anytime Energy (Residential) Exit Service	\$0.00 per connection point
A2 – Anytime Energy (Business) Exit Service	\$0.00 per connection point
A3 – Time of Use Energy (Residential) Exit Service	\$0.00 per connection point
A4 – Time of Use Energy (Business) Exit Service	\$0.00 per connection point
A5 – High Voltage Metered Demand Exit Service	\$44.00 per connection point
A6 – Low Voltage Metered Demand Exit Service	\$44.00 per connection point
A7 – High Voltage Contract Maximum Demand Exit Service	\$88.00 per connection point
A8 – Low Voltage Contract Maximum Demand Exit Service	\$88.00 per connection point
A9 – Streetlighting Exit Service	\$0.00 per connection point
A10 – Un-Metered Supplies Exit Service	\$0.00 per connection point
A11 – Transmission Exit Service	\$175.00 per connection point
B1 – Distribution Entry Service	\$175.00 per connection point
B2 – Transmission Entry Service	\$175.00 per connection point
C1 – Anytime Energy (Residential) Bi-directional Service	\$0.00 per connection point
C2 – Anytime Energy (Business) Bi-directional Service	\$0.00 per connection point
C3 – Time of Use (Residential) Bi-directional Service	\$0.00 per connection point
C4 – Time of Use (Business) Bi-directional Service	\$0.00 per connection point

Appendix F.2 – Price List Information

September 2011



2012/13 Price List Information



**ELECTRICITY NETWORKS CORPORATION
("WESTERN POWER")**

ABN 18 540 492 861

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1 Introduction

This document is Western Power's Price List Information, as defined in the Electricity Networks Access Code 2004 (the Code).

This document details:

- The history of the network tariffs;
- The Price List's compliance with the Access Arrangement;
- The objectives and principles that underlie Western Power's approach to deriving the reference tariffs; and
- The methodology of deriving cost of supply and the reference tariffs from the target revenue.

1.1 Code Requirements

Section 8.1 of the Code requires Western Power to submit Price List Information to the Economic Regulation Authority (the Authority).

The Code defines Price List Information as:

"price list information" means a document which sets out information which would reasonably be required to enable the Authority, users and applicants to:

- (a) understand how the service provider derived the elements of the proposed price list; and
- (b) assess the compliance of the proposed price list with the access arrangement.

1.2 2012/13 Foreword

This document is the Price List Information for the 2012/13 Price List that will apply from 1 July 2012 until 30 June 2013, the first year of the third access arrangement period.

1.2.1 New bi-directional tariffs

Western Power is proposing four new tariffs for bi-directional energy flows. This is as an outcome of a review of the existing bi-directional service and tariff for residential users, and the creation of a bi-directional service and tariff for business users.

A brief description of the existing bi-directional service and tariff for residential users is necessary background to the proposed bi-directional services and tariffs.

In its Draft Decision for AA2 (dated 16 July 2009), the Authority required Western Power to introduce one or more reference services to cater for the requirements for network services that arise where small-scale renewable energy systems connect to the network and where electricity consumers participate in the Renewable Energy Buyback Scheme (REBS). Western Power responded to this Required Amendment in its third submission, dated 5 October 2009, by setting out its proposed residential bi-directional reference service and charging arrangements.

Western Power proposed that a new Reference Service "C1" and an associated Reference Tariff "RT12" would be available to new and existing residential users with bi-directional

energy flows due to small scale embedded generator (inverter connected), in preference to the then currently available reference services of:

- Reference Service A1 – Anytime Energy (Residential) Exit Service; and
- Reference Service A3 – Time of Use Energy (Residential) Exit Service.

The tariff and tariff structure proposed by Western Power was designed to meet the following criteria:

- the tariff should reflect network costs;
- the tariff should limit cross subsidies between customer classes;
- the tariff should be simple to administer, from the perspectives of Western Power, retailers and customers;
- there should be minimal barriers to entry; and
- the tariff should be compatible with REBS.

Reference tariff RT12 consisted of:

- (a) A fixed use of system charge;
- (b) An on-peak use of system variable charge;
- (c) An off-peak use of system variable charge;
- (d) A shoulder use of system variable charge;
- (e) A fixed metering charge;
- (f) An on-peak variable metering charge;
- (g) An off-peak variable metering charge; and
- (h) A shoulder variable metering charge.

In the Final Decision for AA2 (dated 4 December 2009) the Authority accepted that Western Power's proposed reference service would satisfy the requirements for approval of the access arrangement.

However due to concerns raised by stakeholders, primarily relating to implementation costs, this service and the associated Reference Tariff has not been implemented. That is, customers with small scale generation have not been assigned to this Reference Service or associated Reference Tariff and otherwise are paying the same network tariffs as they were previously.

As a result, Ernst & Young were engaged by Western Power to review the existing Reference Service and Reference Tariff for residential distribution users with bi-directional energy flows due to small scale generation, and, in addition, define a new Reference Service and Reference Tariff for commercial users. The review included extensive consultation with key stakeholders.

The new proposed bi-directional reference services and reference tariffs are as a result of that review. The report provided by Ernst & Young is included in this submission (DM 8257584). In summary the review concluded that four new reference services should be proposed in AA3:

Reference Service	Reference Tariff
-------------------	------------------

C1 – Anytime Energy (Residential) Bi-directional Service	RT13
C2 – Anytime Energy (Business) Bi-directional Service	RT14
C3 – Time of Use (Residential) Bi-directional Service	RT15
C4 – Time of Use (Business) Bi-directional Service	RT16

In addition the review concluded that, at this time, following an analysis of the advantages and disadvantages of all issues and costs identified, the most efficient tariff structures are to mirror existing tariffs, as follows:

New Reference Tariff	Identical to
RT13	RT1
RT14	RT2
RT15	RT3
RT16	RT4

Note that, to avoid confusion with the previously offered bi-directional service “RT12” has not been varied following this review. However, it will be removed from the Price List and is no longer related to reference service C1.

1.2.1.1. Implementation and reporting in 2012/13

The Ernst & Young report highlights that implementation of the new tariffs will not be complete until six months after AA3 approval. Due to this time delay, and uncertainty as to when approval of AA3 will occur, forecast customers on these tariffs within this document for 2012/13 will be held to zero. Due to the tariffs being equivalent to existing tariffs this will present no problems in terms of overall revenue recovery.

It is anticipated that in the second year of AA3 customer numbers will be known and able to be forecast with some degree of accuracy and will therefore be included.

1.2.2 Streetlight tariff changes

Two modifications are being made to the streetlight tariff (RT9) in 2012/13. The first is to update the list of streetlight asset types available. This list has been incomplete for some time, and will now reflect the full range of streetlights installed on the network.

The second change is to divide the asset types (in section 5.1.2 of the Price List) into current and obsolete. Current types are still offered and installed, whereas obsolete are existing streetlight types that will no longer be offered for new installations. This change is intended to provide further clarity as to what streetlight types are available for installation.

1.3 History of the Tariffs

Prior to the commencement of the Access Code 2004 and the first Access Arrangement Western Power had in place a suite of tariffs to recover the regulated revenue for both the transmission and distribution network businesses.

Network tariffs have been in place since the introduction of de-regulation into the south-west electricity network in 1996. Initially tariffs were only determined and published for contestable users but from July 2001 network tariffs were established for all users whether contestable or franchise.

In July 2001 the network tariff structure changed somewhat from the structure in place before 2001. This became necessary to improve the efficiency of the tariff structure and to cater, in particular, for the smaller contestable and non-contestable users. Prior to 2001 the transmission and distribution access price structures were entirely different and users seeking access to the networks had separate transmission and distribution access contracts and paid separate charges.

Once the principle was established that access prices were required for all users and all users were to be charged for access, it became imperative to develop appropriate tariffs. This was achieved by a full review of the tariff structures and making the transmission and distribution tariff structures compatible, so that for distribution-connected users the tariffs could be added together at a component level to form a bundled tariff. The transmission and distribution tariffs settings were still separately determined through a transparent process.

Users that were contestable prior to July 2001 were given the option of remaining on the previous tariffs or migrating to the new tariffs. This was facilitated by the retention of a set of transition tariffs. Western Power ceased to offer transition tariffs on 30 June 2009.

With the exception of the introduction of bi-directional tariffs as discussed in section 1.2.1, Western Power has maintained the remaining network tariff structure for the reference services offered under the Access Arrangement since its commencement on 1 July 2006.

1.4 Revenue requirement for 2012/13

1.4.1 Maximum Transmission Regulated Revenue

The following table demonstrates the derivation of the maximum transmission regulated revenue in accordance with section 5.6.6 of the Access Arrangement.

Table 1 – Maximum Transmission Regulated Revenue and Transmission K-Factor for 2012/13 (\$M real as at 30 June 2012)

	2012/13
TR _t	486.5
plus AA2 _t ¹	0.0
plus TK _t ²	0.0
MTR_t	486.53

¹ It is assumed that this term is zero.

² It is assumed that this term is zero.

The derivation of the transmission system cost of supply cost pools and tariffs require the reference service revenue as an input in nominal terms. The following table details the transmission reference service revenue in nominal terms (please see section 1.4.3 for details of the inflation factor used).

Table 2 - Transmission Reference Service Revenue for 2012/13 (\$M)

	Revenue (Real)	Revenue (Nominal)
Reference Service Revenue (MTR _{2012/13})	486.5	501.1

1.4.2 Maximum Distribution Regulated Revenue

The following table demonstrates the derivation of the maximum distribution regulated revenue in accordance with section 5.7.6 of the Access Arrangement.

Table 3 – Maximum Distribution Regulated Revenue and Distribution K-Factor for 2012/13 (\$M real as at 30 June 2012)

	2012/13
DR _t	903.7
plus TEC _t	181.2
plus AA2 _t ³	0.0
plus DK _t ⁴	0.0
MDR_t	1,084.8

The derivation of the distribution system cost of supply cost pools and tariffs require the reference service revenue as an input in nominal terms. The following table details the distribution reference service revenue in nominal terms (please see section 1.4.3 for details of the inflation factor used).

Table 4 - Distribution Reference Service Revenue for 2012/13 (\$M)

	Revenue (Real)	Revenue (Nominal)
Reference Service Revenue (MDR _{2012/13})	1,084.8	1,117.4

1.4.3 Derivation of Inflation Factor

In sections 1.4.1 and 1.4.2 Western Power has inflated the reference service revenue from real terms to nominal terms by using forecast inflation in accordance with sections 5.6.6 and 5.7.6 of the Access Arrangement.

Table 5 - Derivation of 2012/13 Inflation Factor

December 2011 – December 2012 – Forecast	3%
Derived Inflation Factor	1.03

³It is assumed that this term is zero.

⁴It is assumed that this term is zero.

1.5 Forecast revenue recovery

The following table sets out the reference service revenue, by tariff, which is forecast to be collected when applying the 2012/13 Price List.

Table 6 – Reference Service Revenue Forecast 2012/13 (\$M Nominal)

	kWh	Customer Numbers	Forecast Transmission Revenue Recovered	Forecast Distribution Revenue Recovered
TRT1 – Transmission Exit	N/A	25	39.1	0.0
TRT2 – Transmission Entry (includes LV Gens etc.)	N/A	28	79.4	0.0
RT1 - Anytime Energy (Residential)	5,969,150,378	919,457	142.6	598.9
RT2 - Anytime Energy (Business)	1,496,333,433	100,583	44.9	155.8
RT3 - Time of Use Energy (Residential)	207,849,622	20,861	5.1	18.8
RT4 - Time of Use Energy (Business)	2,518,211,176	15,058	63.2	184.0
RT5 - High Voltage Metered Demand	379,773,483	126	9.9	14.1
RT6 - Low Voltage Metered Demand	1,347,275,236	1,449	36.6	61.4
RT7 - High Voltage Contract Maximum Demand	2,664,496,420	240	72.4	39.5
RT8 - Low Voltage Contract Maximum Demand	272,945,271	46	6.2	8.8
RT9 – Streetlighting	125,101,997	236,333	1.9	32.0
RT10 - Unmetered Supplies	37,641,309	15,612	0.4	3.8
RT11 - Distribution Entry	N/A	16	0	0.5
RT13 – Anytime Energy (Residential) Bi-directional Service	0	0	0	0
RT14 – Anytime Energy (Business) Bi-directional Service	0	0	0	0
RT15 – Time of Use (Residential) Bi-directional Service	0	0	0	0
RT16 – Time of Use (Business) Bi-directional Service	0	0	0	0
Deduct Standby			-0.5	
TOTAL	15,018,778,325	1,309,834	501.1	1,117.4
Over/(Under) recovery compared to maximum transmission/distribution regulated revenue			(0.0)	0.3

Note: The standby revenue relates to Western Power providing standby services. This revenue has been deducted from the reference service revenue due to the standby service being provided as a non-reference service.

2 Pricing Principles Overview

This section discusses the principles, objectives and an overview of the methodology used in determining the reference tariffs.

2.1 Pricing Objectives

Reference service revenue is recovered through a set of reference tariffs that have been designed to meet high-level objectives described below.

Note: Transmission and distribution are treated separately and each has independent target revenue for reference services.

The reference service revenue is recovered from users in a manner that is:

- Economically efficient;
- Transparent;
- Practical; and
- Equitable.

In addition to these objectives, the pricing methodology is developed to:

- Achieve the reference service revenue to maintain a viable network business and to deliver efficient network services to all network users;
- Be as cost reflective as is reasonable to reflect the network user's utilisation of the network including use of dedicated assets;
- Promote efficient use of the network through appropriate price signalling;
- Maintain price stability and certainty to enable network users to make informed investment decisions;
- Be as simple and straightforward as is reasonable taking into account other objectives; and
- Avoid cross subsidy between different user groups where possible. From an economic efficiency perspective this requires that the reference tariff be between the incremental cost of supply and the stand-alone cost of supply.

2.2 Pricing Principles

Western Power has adopted the following principles that are designed to meet the pricing objectives set out in the previous section.

1. Reference tariffs are to be designed to recover the reference service revenue entitlement while meeting any side constraints to prevent price shock to users.
2. The prices will be based on a well-defined and transparent methodology.
3. The prices will be based on analysis of the cost of supply provision that includes:
 - a. Definition of the classes of service provided;
 - b. Allocation of fixed and variable network costs to service classes; and
 - c. Price setting to recover the fixed and variable costs.

4. Prices will signal the economic cost of supply provision in that they will:
 - a. Avoid cross subsidies between classes of service; and
 - b. Avoid cross subsidies between customers within each class of service.
5. Provided that economic costs are covered, prices will be responsive to user requirements in order to:
 - a. Avoid economic bypass; and
 - b. Allow for negotiation where provided within the Code.
6. Provide economic signals to encourage efficient use of the network.
7. Reference tariffs for users with annual energy demand below 1 MVA are uniform (consistent with the section 7.7 of the Code), but will meet the pricing principles described above, as far as is practical.

2.3 Pricing Methods

The pricing methods (cost allocations) are set out in section 6.5 of the Access Arrangement. This section provides a summary of Western Power's pricing methods. Further detail is provided in the remainder of this document.

2.3.1 General

Reference tariffs aim to reasonably reflect the cost of providing the network service to users. The first step in developing reference tariffs is to model the cost of supply for users. The cost of supply cannot be derived at an individual user level and so users are categorised into a number of groups with similar costs.

Reference tariffs will generally have a number of components, which fall into fixed and variable categories. Fixed components would generally be a charge per user regardless of their size whereas the variable component would be related to energy or demand. These categories of costs reflect the fact that costs will be related either to the number of users serviced or to the amount of capacity provided.

It is essential to separate the two processes of "determining cost of supply" and "setting reference tariffs" to recover those costs. In the ideal world the costs of supply can be clearly allocated to particular customer groups and the reference tariffs are set to exactly recover those costs. In addition, the costs are separated into fixed and variable components and the reference tariffs are similarly split so that fixed costs are recovered by fixed charges and variable costs by variable charges.

It is recognised that the determination of the cost of supply for users and respective reference tariffs is an inexact process. A number of simplifying assumptions are required, for example, to categorise users into a small number of customer groups or classes with similar characteristics. These assumptions may introduce a degree of imprecision in tariff setting, but this is not considered to be significant and there is considerable historical precedence in deriving the network cost of supply that supports the approach.

It is also noted that demand is the best measurement of capacity. However, the vast majority of users have energy only metering (or no metering at all) that does not record

demand, and therefore energy is used as a proxy for demand. The limitations on the metering information available will also introduce a degree of imprecision that cannot be avoided or readily quantified.

2.3.2 Process to Determine Cost of Supply

This section presents an overview of the process to derive the cost of supply. Detailed information on this process is provided in sections 3 and 4.

There are two basic stages in determining the cost of supply for users:

- Determination of the reference service revenue for Western Power; and
- Allocation of the revenue components to different cost pools for various customer groups, based on factors such as supply voltage, location and load characteristics.

Note: Transmission and distribution are treated separately and each has independent target revenues.

The reference service revenue requirement must then be allocated to asset classes and the use of the assets allocated to users. The customer groups used in the analysis and modelling of costs generally reflect the nature of the physical connection to the network and the relative size and nature of the user, namely:

Transmission connected:

- Transmission Generation
- Transmission Loads

Distribution connected:

- High Voltage >1 MVA maximum demand
- High Voltage <1 MVA maximum demand
- Low Voltage >1 MVA maximum demand
- General Business Large (300-1,000 kVA maximum demand)
- General Business Medium (100-300 kVA maximum demand)
- General Business Small (15-100 kVA maximum demand)
- Small Business (<15 kVA maximum demand)
- Residential
- Streetlights
- Unmetered Supplies

2.3.3 Process to Determine Reference Tariffs

This section presents an overview of the process by which reference tariffs are derived. Detailed information on the process is provided in sections 6 and 7.

Reference tariffs are derived from the cost of supply determination. The reference tariffs do not directly relate to the customer groups. This is because a number of the customer groups are based on derived user demands whereas the reference tariffs are based on the user and metering data that is actually available.

The users within the customer groups are linked to reference tariffs so that cost of supply can then be derived for each reference tariff. The cost of supply is in terms of fixed and variable costs and price settings are then simply established to recover the cost pools from the users.

2.3.4 Modelling Cost Allocations

Western Power's transmission and distribution cost of supply (COS) models accurately reflect the network cost of supply for the various customer groups. The model assembles capital and operating costs for the components (lines, substations, transformers, etc.) of the modern equivalent assets employed in providing network capacity and delivering energy and allocates these to each customer group according to a pre-determined set of principles.

Tables from Western Power's COS model are provided in this document to demonstrate that Western Power complies with its cost allocation methodology.

3 Derivation of Transmission System Cost of Supply

This section details the derivation of the transmission system cost of supply for connection points on the transmission system.

3.1 Cost Pools

The following cost pools are used in the derivation of the transmission system cost of supply:

- Connection Services Cost Pool. Which is further allocated to the following cost pools:
 - Connection Services for Exit Points Cost Pool; and
 - Connection Services for Entry Points Cost Pool.
- Shared Network Services Cost Pool. Which is further allocated to the following cost pools:
 - Use Of System for Loads Cost Pool;
 - Use Of System for Generators Cost Pool; and
 - Common Service for Loads Cost Pool.
- Control System Services Cost Pool. Which is further allocated to the following cost pools:
 - Control System Services for Loads Cost Pool; and
 - Control System Services for Generators Cost Pool.

3.1.1 Connection Services for Exit Points Cost Pool

The Connection Services for Exit Points Cost Pool includes the Gross Optimised Deprival Value (GODV) of all connection assets at each Exit Point and one-third of the value of the voltage control assets at those points (since the function of voltage control equipment is partly location specific and partly system related).

3.1.2 Connection Services for Entry Points Cost Pool

The Connection Services for Entry Points Cost Pool includes the GODV of all connection assets at each Entry Point and one-third of the value of the voltage control assets at those points (since the function of voltage control equipment is partly location specific and partly system related).

3.1.3 Use of System for Loads Cost Pool

Use of System for Exit Points Cost Pool includes 50% of the total Shared Network Services Cost Pool.

3.1.4 Use of System for Generators Cost Pool

Use of System for Entry Points Cost Pool includes 20% of the total Shared Network Services Cost Pool.

3.1.5 Common Service for Loads Cost Pool

The Common Service for Loads Cost Pool includes:

- 30% of the total Shared Network Services Cost Pool;
- Shared Voltage Control Assets – two thirds of the value of voltage control assets at Entry and Exit points (since the function of voltage control equipment is partly location specific and partly system related) and the value of all of voltage control assets at transmission substations. NB The remaining one-third of the value of the voltage control equipment at Entry and Exit points is included in the Connection Services Cost Pool (see above); and
- Adjustments for under or over recovery of revenue expected for any reason in any other tariff component.

3.1.6 Control System Service for Loads Cost Pool

The Control System Service for Loads Cost Pool consists of a portion of the total cost of all SCADA, SCADA related communications equipment, and costs associated with the control centre, proportioned based on the total number of points in the SCADA master station relevant to loads.

3.1.7 Control System Service for Generators Cost Pool

The Control System Service for Generators Cost Pool consists of a portion of the total cost of all SCADA, SCADA related communications equipment, and costs associated with the control centre, proportioned based on the total number of points in the SCADA master station relevant to generators.

3.2 Cost of Supply

In order to calculate transmission cost of supply, all transmission assets are valued and categorised into the above cost pools. Each network branch is further defined as either exit, entry or shared network and cost allocation is then applied based on the GODV of all relevant assets.

3.2.1 Transmission Assets

The principal elements of the transmission networks include transmission substations and zone substations, interconnected by transmission and sub-transmission lines. The transmission networks enable the transportation of electricity from power stations to zone substations and high voltage user loads. The zone substations provide the interface between the transmission networks and distribution networks.

Generally, the transmission networks assets comprise connection assets, shared network assets and other or ancillary assets. These are described as follows:

- Connection Assets: those assets at the point of physical interconnection with the transmission networks which are dedicated to a User - that is, at substations including transformers and switchgear, but excluding the incoming line switchgear. Connection assets for generators are referred to as entry assets and for loads they are called exit assets.
- Shared Network Assets: all other transmission assets, which are shared to some extent by network Users.

- Other or Ancillary Assets: network assets performing an Ancillary Services function comprise:
 - those providing a Control System Service, for example, system control centres, supervisory control and communications facilities.
 - those providing a Voltage Control Service in the networks, for example, a proportion of the costs of capacitor and reactor banks in substations.

Figure 1 shows, in simplified form, the principal elements of the transmission networks and the categorisation of the assets as described above.

Transmission Network Assets

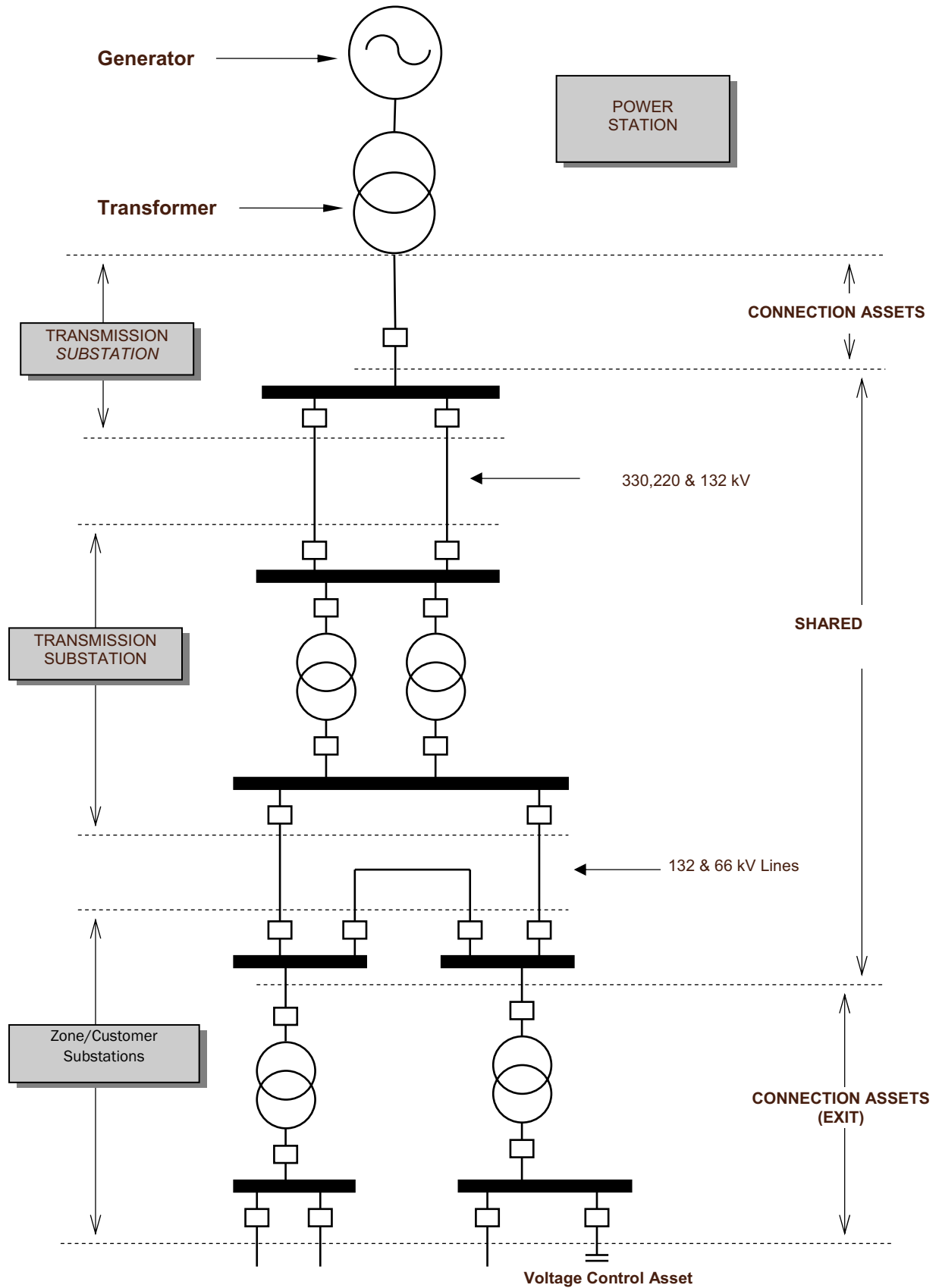


Figure 1 - Transmission Network Assets

3.2.2 Asset Valuation

All valuations of transmission assets are performed using the Optimised Deprival Value (ODV) methodology.

3.2.3 Valuation of Individual Branches and Nodes

To determine cost of supply, valuation data is required for every individual branch and node on the network. Every branch and node consists of many individual asset valuation building blocks that are all individually assessed.

Branches include transmission lines and transformers and include the substation circuits at each end. Each transmission line branch will typically have the cost of each of the circuit breakers at different substations included, whereas each transformer branch will typically have the cost of each of the circuit breakers at that same substation included.

Substation site establishment costs are allocated equally to all substation circuits.

The costs for shared circuit breakers (such as bus section breakers etc.) are allocated equally between all other substation circuits, which derive benefit from that shared circuit breaker.

3.3 Methodology of Allocating to Cost Pools

3.3.1 Overview

The methodology for allocating the transmission revenue to each cost pool is to allocate the revenue in the proportion to the GODV of the assets in each cost pool.

However, the Annual Revenue Requirement for the Control System Service Cost Pool is calculated separately (using the same method as for all other network assets) but assuming higher depreciation and operating expenditure than for other network assets. When calculating other Cost Pool Revenues appropriate adjustments are required.

Consequently:

$$\text{Cost Pool Revenue} = \text{RR} * \text{GODV (Cost Pool)}$$

where:

$$\text{RR} = \text{a revenue rate of return (RR) determined as } \text{AARR}_{\text{network}} / \Sigma \text{GODV}_{\text{network}}$$

$\text{AARR}_{\text{network}}$ = Transmission Reference Service Revenue excluding Annual Revenue Requirement for Control System Services.

GODV (Cost Pool) = GODV of the transmission network assets which belong in that cost pool.

$\Sigma \text{GODV}_{\text{network}}$ = GODV of all transmission assets excluding Control System Service assets.

3.4 Cost Pool Allocations

Applying the above methodology, the following cost pool revenues were derived (before applying pricing side constraints) for 2012/13:

Table 7 - Transmission Pricing Cost Pools for 2012/13 (\$M Nominal)

Cost Pool	Allocated Revenue
Entry Connection	10.2
Exit Connection HV	0.8
Exit Connection LV	122.5
Control System Services for Generators	3.8
Control System Services for Loads	21.5
Use Of System for Generators	63.5
Use Of System for Loads	158.7
Common Service for Loads (including Voltage Control)	119.7
Metering CT/VT	0.7
Deduct Standby	-0.5
Total Reference Service Revenue	501.1

Note: The standby cost pool relates to Western Power providing standby services. This cost pool has been removed from the costs associated with reference services due to the standby service being provided as a non-reference service.

4 Derivation of Distribution System Cost of Supply

This section details the derivation of the distribution system cost of supply for connection points on the distribution system.

The derivation of the Distribution System Cost of Supply operates along the same principles as the transmission system. That is, the reference service revenue entitlement (which includes the tariff equalisation contribution (TEC)) is determined for the distribution system, and that revenue is then allocated to asset categories to derive the cost of supply for each of the customer groups. The cost of supply is based on the relative usage of each asset category by the various customer groups.

The structure of the distribution network cost of supply and reference tariffs reflects the features of the distribution network.

4.1 Cost Pools

The distribution cost pools used in the Distribution System Cost of Supply are:

- High Voltage Network
- Low Voltage Network
- Transformers
- Streetlight Assets
- Metering
- Administration

4.2 Customer Groups

The distribution customer groups used in the Distribution System Cost of Supply are:

- High Voltage >1 MVA maximum demand
- High Voltage <1 MVA maximum demand
- Low Voltage >1 MVA maximum demand
- General Business Large (300-1,000 kVA maximum demand)
- General Business Medium (100-300 kVA maximum demand)
- General Business Small (15-100 kVA maximum demand)
- Small Business (<15 kVA maximum demand)
- Residential
- Streetlights
- Unmetered Supplies

4.3 Locational Zones

Distribution reference tariffs are provided for individual locational zones for users with energy demands in excess of 1 MVA. Locational zones are defined as those areas supplied by the network where the distribution system cost of supply is similar. For example, the rural wheat belt areas of Western Australia are considered to have a reasonably uniform distribution system and costs of supply, as do the urban and CBD areas of Perth.

Zone substations with similar cost structures are allocated to locational zones that feed an area of the distribution system. Where a zone substation supplies an area of more than one distinct cost of supply, then all users supplied from that substation are considered to be in the one dominant category. That is, there is only one locational zone defined for each zone substation.

The five zones are defined in the sections below, and for details of the allocation of each zone substation to locational zones see the Price List in the Access Arrangement.

4.3.1 CBD Locational Zone

This is defined as the intense business area generally recognised as the Perth CBD area. The defining street boundaries is generally from the Swan River north to Aberdeen Street Northbridge, west to Rokeby Road Subiaco, and east to the East Perth redevelopment area.

4.3.2 Urban Locational Zone

This is defined as the uniformly and continuously settled areas of Perth that contains the urban domestic, commercial and industrial users but exclude the CBD. This area also excludes the outer urban area that is treated as mixed. The country towns of Geraldton and Kalgoorlie are also included.

4.3.3 Rural Locational Zone

This is defined to include those areas which have a predominantly rural/farming characteristic and includes small to medium size towns within the southwest land division, for example Merredin.

4.3.4 Mixed Locational Zone

This is defined to include those areas that have a mixed user base that has at least two dominant load types, for example a mix of significant mining and rural loads or significant urban and rural loads. It also includes significant outer areas of Perth, which can be a mix of fringe urban, semi-rural and rural types, for example Yanchep.

4.3.5 Mining Locational Zone

This is defined to include the mining area surrounding Kalgoorlie, which is supplied at 33 kV and the mining area at Forrestania which is also supplied at 33 kV. It does not include the town of Kalgoorlie (Urban zone).

4.4 Methodology of Deriving the Cost of Supply

4.4.1 Flowchart

The derivation of the cost of supply for each customer group the process followed is illustrated in the following flow diagram.

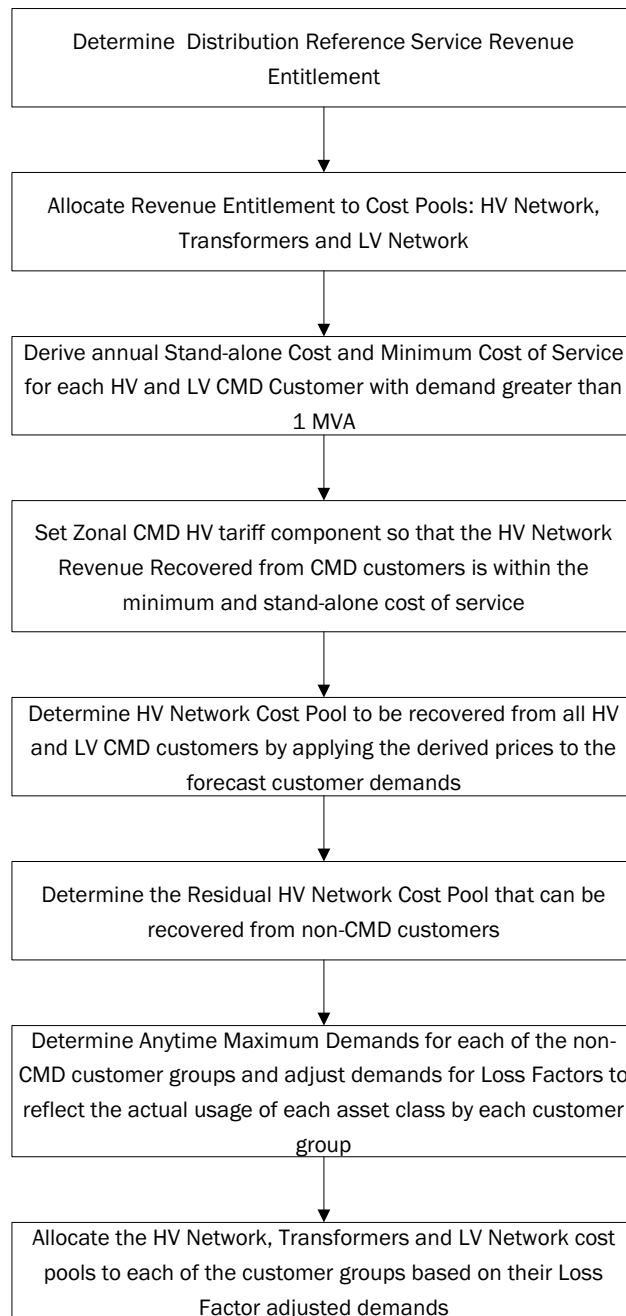


Figure 2 - Distribution Cost of Supply Flow Chart

Each step in this process to derive the distribution cost of supply is described in more detail in the following sections.

4.4.2 Calculate the Forecast Distribution Network Revenue to be recovered from Distribution-Connected Users

It is assumed at this stage that the forecast distribution network revenue entitlement has been determined in accordance with the approach approved by the Authority in the Access Arrangement.

The forecast distribution network revenue entitlement includes an amount for the TEC. The allocation of TEC to the cost pools and the customer groups is undertaken on the same basis as the network revenue entitlement set out below.

4.4.3 Allocate Revenue Entitlement to Cost Pools HV Network, Transformers and LV Network

The network revenue entitlement is then allocated to each of the asset classes being the HV network, transformers and the LV network. The allocation is based on the GODV of each asset category as a proportion of the total GODV.

4.4.4 Derive HV annual stand-alone cost and incremental cost of supply for all HV and LV CMD users with demand greater than 1 MVA

In the cost of supply analysis, the costs for users with annual maximum demands less than 1,000 kVA are assumed to be uniform across the network whereas costs for users with demands above 1,000 kVA are determined on the basis of their location on the network and relative use of network assets.

On this basis, the HV network costs that can be allocated to users with maximum demands in excess of 1,000 kVA are calculated through a process that ensures that the cost is between the incremental and stand-alone cost of supply. This approach is consistent with the requirements of section 7.3 of the Code and demonstrated in section 0.

In terms of costs of supply analysis, this approach is contrary to the approach for users with demands below 1,000 kVA. For these users the approach is facilitated by allocating the network costs on the basis of sharing the average costs of the network between users depending on their relative usage of the network components.

This approach for larger users can distort the final price outcomes because it assumes that costs can be allocated linearly on usage. This approach is reasonable for smaller users where the stand-alone cost will far exceed the average cost of supply. On the other hand, the stand-alone cost for larger users can be less than a simple linear allocation of costs and for this reason it is essential to take a different approach.

The approach taken is to derive the HV network incremental and standalone cost for each user with maximum demand in excess of 1,000 kVA. This process will give maximum and minimum revenues that could be recovered from this customer group.

The reality of network pricing is that the actual revenue recovered from these users should fall between these two values. The actual value is determined by deriving reference tariff components that, when applied to the forecast user data will produce charge and revenue outcomes that recover at least the incremental cost of supply but do not recover more than the standalone cost of supply. The detail of this price setting is contained in section 7.

4.4.5 Redefine Revenue Pools

The outcome of the process to date is that the HV network revenue for HV and LV users with maximum demands greater than 1,000 kVA has been forecast. This now results in a reallocation of the reference tariff revenue entitlement into the costs pools of:

- HV network cost pool that is recovered from users with demands greater than 1,000 kVA.
- Residual HV network cost pool for users with demands less than 1,000 kVA,
- Transformer cost pool, and
- LV network cost pool.

These cost pools must now be allocated to customer groups based on relative usage of the network elements.

4.4.6 Allocation of Residual HV Network Costs to Customer Groups

This allocation is to reflect the usage of each of the customer groups of the HV network remembering that the costs associated with users with maximum demands greater than 1,000 kVA have already been determined.

The allocation is based on the diversified maximum demand imposed by each customer group. Where a user has a metered demand, that demand is recorded but for the vast majority of users there is no metered demand. For all of these users a notional demand is calculated based on their diversified load factor. Those calculated demands are adjusted by average loss factors to reflect the actual demand placed on the HV network.

The load factors are based on industry codes that reflect typical users. These load factors were derived from sample data taken over a large number of users and are recorded against each user. The sum of the demands is called the anytime maximum demand (ATMD).

The loss factors that are used are listed by customer group as follows:

Customer Group	Loss Factor (%)
Unmetered	8
Streetlights	8
Residential	8
Small Business	8
General Business Small	8
General Business Medium	5
General Business Large	4
Low Voltage >1MVA	4
High Voltage	1

4.4.7 Fixed and Variable Costs

Based on the premise that the network was built in part to supply each user, it is reasonable to allocate some of the HV costs on a per user basis rather than purely on demand. Capacity to carry load should clearly be allocated on demand, but the cost to get a minimum capacity supply to a user should, in principle, simply be allocated on a per user basis. This reflects the principle that all users benefit from the HV line regardless of their actual usage.

The question of what percentage of costs should be allocated on a per user basis is the classical fixed and variable cost allocation issue. To determine the fixed component of the cost the approach taken will be to calculate the cost to establish the network to supply the smallest possible load to each user. The variable component of the cost can then be based on all costs that give the network capacity to provide differential supply to each user. That process is described below.

4.4.7.1. Capital related costs (return and depreciation)

The “minimal” cost HV line could be seen as a single-phase line with minimum conductor size, maximum bay lengths and minimum pole and hardware ratings. It is reasonable to assign 40 metre bays in the urban area and 250 metre bays in rural areas for this purpose. The approximate costs for such hypothetical constructions (derived from the results of the 2004 valuation study) would be as follows.

Line Construction	Cost per Kilometre (\$)
1 Phase Steel (40 m bays)	18,000
3 Phase Large Size (40 m bays)	50,000
1 Phase Steel (250 m bays)	8,500
3 Phase Large Size (120 m bays)	24,000

From these numbers it is reasonable to deduce that the cost to simply provide a minimal HV supply is approximately 35% of the cost to provide a full capacity supply in both the urban and rural cases. The remaining 65% is therefore considered related to load and should be allocated on demand.

4.4.7.2. Operating and maintenance costs

A proportion of the costs associated with operations and maintenance do not vary with load, while other costs are clearly load related.

A proportion of maintenance costs relating to routine inspection and repair could be regarded as being fixed in nature, whereas a proportion is required to maintain capacity, and therefore could be regarded as variable. Fault restoration work can be similarly differentiated, depending on the nature of the faults.

It is difficult to be definitive in allocating maintenance costs but a 50/50 split between fixed and variable is considered reasonable and has been adopted for cost allocation purposes.

4.4.7.3. Resultant cost allocation

Applying these percentage allocations to three phase HV capital and O&M costs results in a fixed to variable ratio of approximately 40:60.

4.4.8 Allocation of Transformer Costs to Customer Groups

Transformers are installed to provide capacity and energy for each load and the costs can be fairly allocated on demand.

The cost of maintenance of transformers is a very small proportion of the total distribution network maintenance expense, and so no maintenance costs are allocated to transformers.

4.4.9 Allocation of LV Network Costs to Customer Groups

The logic for developing cost allocation principles for LV network costs is identical to the HV case. Therefore, the LV costs are allocated on a similar basis.

However, the LV costs per kVA are generally higher for smaller users than for larger users. Larger users use proportionately less of the LV network because they are typically connected closer to transformers, and generally have a lower level of back-up. For example, a user with a load of 300 kVA or more would generally be connected directly to a transformer with limited capacity in the LV network to supply only part load in the event of an HV contingency.

Appropriate weighting factors have therefore been derived to reflect the proportionate usage of the LV network by the different customer groups, as follows:

Customer Group	Cost Weighting
Residential	1
Small business	1
General business - small	1
General business - medium	0.9
General business - large	0.1
Low Voltage >1,000 kVA	0.1
High Voltage	0

4.4.10 Allocation of Tariff Equalisation Contribution (TEC) Costs to Customer Groups

TEC is allocated to the cost pools consistent with the methodology detailed above. TEC is then allocated to customer groups on the same basis that is set out above for:

1. Allocation of HV Network Costs to customer groups
2. Allocation of Transformer Costs to customer groups
3. Allocation of LV Network Costs to customer groups

4.4.11 Streetlighting Costs

Allocation of network costs to streetlighting is in two components - the use of network costs and the costs associated with the streetlight asset itself.

4.4.11.1. Use of Network Costs

Streetlighting does not contribute to system peak load, which occurs mid afternoon in summer. In winter, the lighting load coincides with the evening peak but because the various network elements have a higher rating in the colder conditions, streetlighting effectively does not contribute to network costs but simply assists in improving the load factor.

On this basis HV, LV and transformer costs are allocated on a fixed and variable basis as for other customer groups, but with customer numbers reduced by a factor of 10.

4.4.11.2. Streetlight Asset Costs

The allocation of the streetlight asset costs is based on the average cost per light, as derived in the asset valuation, applied over the total asset.

4.4.12 Metering Costs

Metering costs are determined from asset information for the various customer groups and both capital and maintenance costs are allocated on a per user basis across each group.

4.4.13 Administration Costs

The allocation of administration costs is based on specific charges for the larger customer groups, with the residual cost pool allocated by ATMD over the other customer groups.

4.5 Cost Pool Allocations

Applying the above methodology, the following tables detail the allocation of the distribution network revenue entitlement (which includes TEC) to the cost pools and customer groups:

Table 8 - Distribution Cost Pools for 2012/13 (\$M Nominal)

Cost Pool	Locational Zone					Total
	CBD	Urban	Goldfields Mining	Mixed	Rural	
High Voltage Network	11.4	183.3	6.3	124.7	131.3	457.0
High Voltage Network > 1,000 kVA	9.0	34.8	3.2	9.0	3.3	59.3
High Voltage Network Total	20.4	218.1	9.5	133.6	134.6	516.3
Low Voltage Network	12.0	195.3	1.8	52.1	20.8	282.0
Transformers	7.3	72.0	1.9	34.0	23.0	138.1
Streetlight Assets						23.2
Metering						52.2
Administration						105.6
TOTAL Reference Service Revenue						1,117.4

Table 9 - Distribution Customer Groups for 2012/13 (\$M Nominal)

Customer Group	ATMD MVA	GWh	Loss Adjusted ATMD's	Transformer Adjusted ATMD's	LV Adjusted ATMD's	Number of Customers	LV Adjusted Customer Numbers	High Voltage Network		Low Voltage Network		Transformers	Streetlight Assets	Metering	Administration
								Fixed \$/annum	Variable \$/annum	Fixed \$/annum	Variable \$/annum				
Unmetereds	6	38	6	6	6	15,612	15,612	1.8	0.3	1.3	0.3	0.1	0.0	0.0	0.3
Streetlights	31	125	34	34	3	236,333	23,633	3.3	1.8	1.9	0.1	0.8	23.2	0.0	0.9
Residential	2,470	6,177	2,676	2,676	2,676	940,318	940,318	120.3	144.6	74.3	116.5	65.9	0.0	39.1	57.1
Small Business	417	926	437	437	437	94,991	94,991	20.5	29.2	7.5	19.2	12.0	0.0	5.4	8.7
General Business - Small	755	1,677	790	790	790	18,216	18,216	3.1	49.4	1.5	34.8	21.1	0.0	3.6	13.6
General Business - Medium	493	1,088	516	516	464	2,741	2,467	0.4	28.1	0.2	20.3	12.9	0.0	1.6	8.7
General Business - Large	543	1,280	561	561	56	1,018	102	0.1	29.3	0.0	2.4	13.7	0.0	1.1	9.6
LV greater than 1000kVA	375	664	387	387	39	170	17	3.9	31.2	0.0	1.7	11.6	0.0	0.4	2.1
HV less than 1000kVA	61	183	62	0	0	76	0	0.0	2.9	0.0	0.0	0.0	0.0	0.2	1.1
HV>1000	842	2,861	859	0	0	277	0	15.8	30.2	0.0	0.0	0.0	0.0	0.9	3.6
TOTAL	5,993	15,019	6,329	5,408	4,472	1,309,752	1,095,356	169.2	347.1	86.7	195.3	138.1	23.2	52.2	105.6

5 Reference Tariff Structure

This section provides an overview of the reference tariffs that apply to the transmission and distribution system.

5.1 Reference Services and Tariff Structure

The following table details the relationship between the reference services, detailed in the Access Arrangement, and the reference tariffs.

Table 10 - Reference Services

Reference Service	Reference Tariff
A1 – Anytime Energy (Residential) Exit Service	RT1
A2 – Anytime Energy (Business) Exit Service	RT2
A3 – Time of Use Energy (Residential) Exit Service	RT3
A4 – Time of Use Energy (Business) Exit Service	RT4
A5 – High Voltage Metered Demand Exit Service	RT5
A6 – Low Voltage Metered Demand Exit Service	RT6
A7 – High Voltage Contract Maximum Demand Exit Service	RT7
A8 – Low Voltage Contract Maximum Demand Exit Service	RT8
A9 – Streetlighting Exit Service	RT9
A10 – Unmetered Supplies Exit Service	RT10
A11 – Transmission Exit Service	TRT1
B1 – Distribution Entry Service	RT11
B2 – Transmission Entry Service	TRT2
C1 – Anytime Energy (Residential) Bi-directional Service	RT13
C2 – Anytime Energy (Business) Bi-directional Service	RT14
C3 – Time of Use (Residential) Bi-directional Service	RT15
C4 – Time of Use (Business) Bi-directional Service	RT16

5.2 Exit Service Tariff Overview

An overview of the structure of each of the reference tariffs applicable to exit services is presented in the following sections.

5.2.1 RT1 – Anytime Energy (Residential)

The tariff structure for distribution includes:

- A fixed charge per user, and
- A charge per kWh for calculated energy consumption.

The tariff structure for transmission includes:

- A charge per kWh for calculated energy consumption.

Energy only tariffs have no incentive for users to improve their load factor or shift energy consumption to off-peak.

5.2.2 RT2 – Anytime Energy (Business)

The tariff structure for distribution includes:

- A fixed charge per user, and
- A charge per kWh for metered energy consumption.

The tariff structure for transmission includes:

- A charge per kWh for metered energy consumption.

Energy only tariffs have no incentive for users to improve their load factor or shift energy consumption to off-peak

5.2.3 RT3 – Time of Use Energy (Residential)

The tariff structure for distribution includes:

- A fixed charge per user;
- A charge per kWh for metered on peak energy consumption; and
- A charge per kWh for metered off peak energy consumption.

The tariff structure for transmission includes:

- A charge per kWh for metered on peak energy consumption; and
- A charge per kWh for metered off peak energy consumption.

Time of use tariffs have the incentive for users to manage their energy consumption to shift energy consumption from on-peak to off-peak.

5.2.4 RT4 – Time of Use Energy (Business)

The tariff structure for distribution includes:

- A fixed charge per user;
- A charge per kWh for metered on peak energy consumption; and
- A charge per kWh for metered off peak energy consumption.

The tariff structure for transmission includes:

- A charge per kWh for metered on peak energy consumption; and
- A charge per kWh for metered off peak energy consumption.

Time of use tariffs have the incentive for users to manage their energy consumption to shift energy consumption from on-peak to off-peak.

5.2.5 RT5 – High Voltage Metered Demand

The tariff structure is based on the metered demand of the user, with a discount to the demand charge based on the ratio of off peak energy to total energy used. In addition the tariff has a demand length tariff component for users with demand greater than 1,000 kVA. There is a separate metering charge that picks up the capital and operating costs for the metering asset.

This tariff has a mix of incentives for the user to manage their electricity consumption.

The demand used is a running 12-month peak. This provides a clear incentive to manage the peak demand because any excessive demand recorded in one month then impacts

upon the demand charge for the next 12 months. The demand length charge is also based on the running 12-month peak.

The second incentive is the off peak energy discount which is based upon the ratio of off peak energy to total energy used. The maximum discount is 50% for off peak energy usage only and for an equal use of on and off peak energy the discount is 25%.

5.2.6 RT6 – Low Voltage Metered Demand

The tariff structure is identical to RT5 – High Voltage Metered Demand.

5.2.7 RT7 – High Voltage Contract Maximum Demand

The tariff structure requires the user to nominate a contracted maximum demand (CMD) that reasonably reflects their expected annual peak demand. In addition the tariff has a demand length tariff component also based on the CMD. There is a monthly penalty for any demand excursion above the CMD. All prices are in terms of \$ per kVA.

The distribution component of the prices is zonal and there are 5 zones ranging from CBD to rural. This is because the costs of supply are seen to be dependent on the nature of the network that varies according to the location and consequent construction standard and cost.

There are also separate charges for administration and metering.

The transmission component of the tariff is nodal with prices based on the zone substation to which the user is connected.

This tariff has a mix of incentives for the user to manage their electricity consumption.

The demand is in kVA rather than kW so that there is a clear benefit from managing the power factor as close to unity as possible. For example, improving the power factor from 0.7 to 0.8 will reduce the demand charge by 12.5%.

The second incentive is to manage the peak demand, which can be achieved by improving the load factor and by containing the peak demand. This incentive is very strong and the user has flexibility in the options available for managing the demand. The penalty for exceeding the contract maximum demand provides additional incentive.

The demand length charge provides an incentive for the user to locate as close as possible to the zone substation. For existing users there is no real opportunity to respond to this incentive, but for new users there is some ability to respond.

The transmission component of the price is nodal so that there is a clear signal for users to locate near to the lower price substations. This may or may not be achievable depending on the individual user circumstances.

5.2.8 RT8 – Low Voltage Contract Maximum Demand

The tariff structure is identical to RT7 – High Voltage Contract Maximum Demand with the addition of a low voltage charge that reflects the additional cost for usage of the low voltage distribution network.

5.2.9 RT9 – Streetlighting

Streetlights do not have metering information to support either the initial setting of the tariff or the billing of users based on energy consumption or energy demand and therefore the energy consumption must be estimated based on burn hours and globe wattage.

The tariff structure for distribution includes:

- A fixed charge per user; and
- A charge per kWh for calculated energy consumption.

The tariff structure for transmission includes:

- A charge per kWh for calculated energy consumption.

In addition there is a charge to reflect the capital and operating costs of the streetlight asset itself. Western Power owns the assets and the revenue is included within the reference service revenue. The tariff structure for the streetlight asset is simply a fixed charge per light based on the type and rating of the light.

5.2.10 RT10 – Unmetered Supplies

Unmetered supplies do not have metering information to support either the initial setting of the tariff or the billing of users based on energy consumption or energy demand. However there is a requirement for the user to provide sufficient load data so that the energy consumption can be calculated. As such the available information is user connection and energy consumption.

The tariff structure for distribution includes:

- A fixed charge per user; and
- A charge per kWh for calculated energy consumption.

The tariff structure for transmission includes:

- A charge per kWh for calculated energy consumption.

5.2.11 TRT1 – Transmission

The tariff is based on the zone substation to which the user is connected. The user will pay the use of system, common service and control system service charges. There is also a separate metering charge. All prices are in \$ per kW.

The tariff structure requires the user to nominate a CMD, in kW, that reasonably reflects their expected annual peak demand. There is a monthly penalty for any demand excursion above the CMD.

The incentive is clearly for the user to manage their peak demand through the initial nomination of the CMD and also the monthly penalty for exceeding the CMD.

5.3 Entry Service Tariff Overview

An overview of the structure of each of the reference tariffs applicable to entry services is presented in the following sections.

5.3.1 RT11 – Distribution

The transmission charge is identical to the charge for a transmission connected generator in that the generator nominates a declared sent out capacity (DSOC) and the charge is based on the transmission nodal price at the nearest transmission entry point. The transmission charge for use of system is in \$ per kW. Unlike the transmission exit reference tariff (TRT1) there is no common service charge. The generator must also pay the connection charge which is also expressed in terms of \$ per kW.

The generator's DSOC is in kW and is corrected for losses from the zone substation to the generator site, for purposes of calculation of the transmission price component.

The distribution charge is based on the zonal CMD demand length price. There is no demand only charge. As such the distribution charge for generators with demand less than 1,000 kVA is zero. There is also a separate metering charge.

The DSOC must be nominated in kW for the transmission charge and in kVA for the distribution charge. However the power factor is assumed to be unity for the purpose of charging because the power factor will not generally be within the control of the generator.

The incentive for distribution-connected generators is to locate as near as possible to the zone substation although for generators with a DSOC less than 1,000 kVA there is no such incentive. However, small generators are not considered to require strong locational incentives because the network will generally not be impacted to any significant extent.

The transmission component also contains a locational signal. Like for TRT2 customers, there is a monthly penalty for any demand excursion above the DSOC that has not been authorised by System Management.

5.3.2 TRT2 – Transmission

The tariff is based on the zone substation to which the generator is connected. The generator will pay the entry point use of system and control system service charges. There is also a separate metering charge. All prices are in \$ per kW.

The tariff structure requires the generator to nominate a DSOC, in kW, that reflects their maximum intended export capacity. There is a monthly penalty for any demand excursion above the DSOC that has not been authorised by System Management.

5.4 Bi-directional Service Tariff Overview

An overview of the structure of each of the reference tariffs applicable to bi-directional services is presented in the following sections. For all four bi-directional services, the tariffs are equivalent to the reference service upon which it is based as detailed in section 1.2.1.

5.4.1 RT13 – RT16

The tariff structure of these tariffs is based on the structures of tariffs RT1-4 detailed in sections 5.2.1 to 5.2.4.

6 Derivation of Transmission System Tariff Components

This section describes the methodology used to calculate transmission reference tariff components.

6.1 Cost Reflective Network Pricing

6.1.1 General

The Cost Reflective Network Pricing (CRNP) cost allocation method allocates the revenue requirement to all network elements, based on their Gross Optimised Deprival Value (GODV), then determines the use made of each network element by each connection point during the survey period.

The CRNP cost allocation process requires detailed network analysis and involves the following steps:

1. determining the annual revenue requirement (ARR) for individual transmission shared network assets (see below);
2. determining the network load and generation pattern;
3. performing a load-flow to calculate the MVA loading on network elements;
4. determining the allocation of generation to loads;
5. determining the utilisation of each asset on the network by each connection point;
6. allocating the revenue requirement of individual network elements to each user based on the assessed usage share; and
7. determining the total cost allocated to each connection point by adding the share of the costs of each individual network element attributed to each point in the network.

6.1.2 Allocation of Generation to Load

A major assumption in the use of the CRNP methodology is the allocation of generation to load using the 'electrical distance'. With this approach, a greater proportion of load at a particular location is supplied by generators that are electrically closer than those that are electrically remote. The electrical distance is the impedance between the two locations, and this can readily be determined through a standard 'fault level calculation'. Once the assumption has been made as to the proportion that each generator actually supplies each load for a particular load and generation condition (time of day) it is possible to trace the flow through the network that results from supplying each load (or generator).

The utilisation that any load makes of any element is then simply the ratio of the flow on the element resulting from the supply to this load to the total flow on the element made by all loads and generators in the system.

6.1.3 Operating Conditions for Cost Allocation

The choice of operating conditions is important in developing prices using the CRNP methodology. The use made of the network by particular loads and generators will vary depending on the load and generation conditions on the network at the time. The National Electricity Rules (NER) sets out the principles to apply in determining the sample of operating conditions considered.

The load and generation patterns used to establish transmission prices should include all operating scenarios that result in most stress in the network and for which network investment may be contemplated. The operating conditions chosen should broadly correspond to the times at which high demands drive network expansion decisions. Operating conditions should be included that impose peak loading conditions on particular elements, recognising that these may occur at times other than for peak demand.

Consistent with these principles, the operating conditions to be used for the cost allocation process for the transmission system as are as follows:

- Load and generation conditions shall be actual operating conditions from the previous 12 months; and
- Operating conditions shall include data for every node for every half hour where system peak demand is greater than an amount such that data from 10 individual summer days and 10 individual winter days are included.

6.2 Price Setting for Transmission Reference Services

Transmission tariffs for exit and entry services are fixed and are generally expressed as \$/kw/annum. Generally, transmission prices are derived by dividing the cost pool, either in its entirety or at a zone substation level, by the assigned maximum demand applying to those assets. However, the details of some parts of the process are complex and explained in more detail in the following sections.

6.2.1 Transmission Pricing Model

Once Transmission assets are valued and T-price (see below for details) has established the relativity of UOS prices the Transmission Pricing Model is used:

1. to calculate the annual revenue requirements for all respective cost pools (based on valuation data and the rate of return required); and
2. to scale the raw T-price UOS prices to give the required Use Of System cost pool revenues.

6.2.2 Connection Price

The Connection Price is an average price for the utilisation of Western Power owned connection assets. The Connection Price is uniform for all entry and exit points and reflects the total annual costs allocated to the connection assets divided by the total usage at each point. The Connection Price is calculated by taking the Connection Cost Pool Revenue and dividing it by the aggregate of relevant CMDs or DSOs (over all Exit or Entry points where the charge is applied).

Connection charges for connection points on the transmission system are not published but are determined subject to the specific connection arrangements. These connection

charges are individually calculated to reflect the actual connection assets that apply to that user. The amount of the charge is based on achieving a regulated return on all relevant assets and an allocation of the transmission network operating costs.

6.2.3 Use of System (UOS) Prices

Consistent with the NER, the proportion of the transmission reference service revenue that is allocated to Transmission UOS is allocated to each and every connection point using a CRNP method. CRNP assigns a proportion of shared network costs to individual user connection points.

6.2.3.1. T-Price

Western Power uses T-price to establish the relativity of UOS prices for each exit and entry point. T-price is a modelling tool to allocate network costs using CRNP. T-price requires significant work to establish all of the inputs and to run the model. However, in summary:

- The GODV of every branch and node of the network is allocated. Every node is classified as either Exit or Entry, and every Branch is classified as either shared or dedicated to consumers or dedicated to generators.
- Electrical configuration and parameters of the network are established (PSSE system Raw Data file).
- Interval demand data is assembled for all entry and exit points.
- Load flow analysis is carried out so that all network element costs are allocated to each zone substation based on usage of those network elements.
- The costs for all entry and exit points are then converted to prices by assigning a maximum demand to each node and using that demand to calculate a price in terms of \$/kW/annum.

6.2.3.2. UOS Price Moderation

The application of CRNP for UOS prices can introduce volatility to individual prices as a result of changes in network usage beyond the control of any one user. It is hence appropriate to moderate any price fluctuations to mitigate price shock and improve certainty to customers. Annual variations to TUOS prices are therefore scaled and moderated as follows:

- annual changes to be constrained within a bandwidth of $\pm 5\%$; and
- the mid point of the band set to recover the required cost pool revenue.

6.2.3.3. UOS Prices – Exit Points

UOS prices for Exit Points are calculated within the constraints of the UOS Price Moderation specified above to recover the UOS for Loads Cost Pool Revenue.

6.2.3.4. UOS Prices – Entry Points

UOS prices for Entry Points are calculated within the constraints of the UOS Price Moderation specified above to recover the UOS for Generators Cost Pool Revenue.

6.2.4 Common Service Price for Loads

The Common Service Price is expressed in c/kW/day and is uniform for all exit points. The Common Service Price is calculated by taking the Common Service Cost Pool Revenue and dividing it by the aggregate of relevant CMDs (over all Exit points where the charge is applied).

6.2.5 Control System Service Price

The Control System Service Price is expressed in c/kW/day. Separate Prices for consumers and generators are calculated based on the respective cost pools but are uniform for each.

6.2.5.1. CSS for Consumers

The Control System Services price to Loads is calculated by taking the Control System Services to Loads Cost Pool Revenue and dividing it by the aggregate of relevant CMDs (over all Exit points where the charge is applied).

6.2.5.2. CSS for Generators

The Control System Services price for Generators is calculated by taking the Control System Services to Generators Cost Pool Revenue and dividing it by the aggregate of relevant DSOCs (over all Entry Points where the charge is applied).

6.2.6 Transmission Reference Tariff Setting

The following table details the forecast transmission revenue, by tariff, which will be collected from transmission connection points and the total amount that will be collected from distribution connection points (please see section 6.3 for further details).

Table 11 - Transmission Revenue Forecast for 2012/13 (\$M Nominal)

	Forecast Total MW	Number Customers	Forecast Transmission Revenue Recovered
TRT1 – Transmission Exit	568	26	39.1
TRT2 – Transmission Entry (includes LV Gens etc.)	6306	29	79.4
RT1 – RT 16 - Distribution Users (Pass Through)	4210	1,309,781	383.1
Deduct Standby			-0.5
TOTAL			501.1
Forecast under-recovery			0.0

Note: The standby revenue relates to Western Power providing standby services. This revenue has been deducted from the reference service revenue due to the standby service being provided as a non-reference service.

6.3 Price Setting for Distribution Reference Services

The tariffs for connection points on the transmission system do not collect the full transmission reference service revenue entitlement. Connection points on the distribution system utilise the transmission system as well as the distribution system. The remainder of

the transmission reference service revenue entitlement is collected from tariffs for connection points on the distribution system.

Charges are determined for each direct connected transmission user based on respective CMDs. The revenues from these users are then deducted from the revenue entitlement for that substation to give a net revenue amount to be recovered from users connected to that substation via tariffs for connection points on the distribution system.

Reference tariffs for users connected to the distribution system with a peak demand >1MVA incorporate transmission nodal prices. The transmission pass-through revenue, net of the revenues from the >1 MVA users, is then allocated in aggregate to the various small customer groupings on the basis of loss adjusted any time maximum demand (ATMD) for each grouping (further described below).

A number of processes take place to determine transmission prices that match the structure of distribution reference tariffs so that a full suite of bundled tariffs can be produced.

Transmission prices take a range of forms, as discussed in section 5. The CMD tariffs are based on a nominated peak demand in terms of kVA. The CMD tariffs are nodal in that they are based on the transmission node to which the load user is connected. All other tariffs are uniform across the Western Power Network.

6.3.1 Flow Chart

The process to derive prices can be illustrated in the following flow diagram.

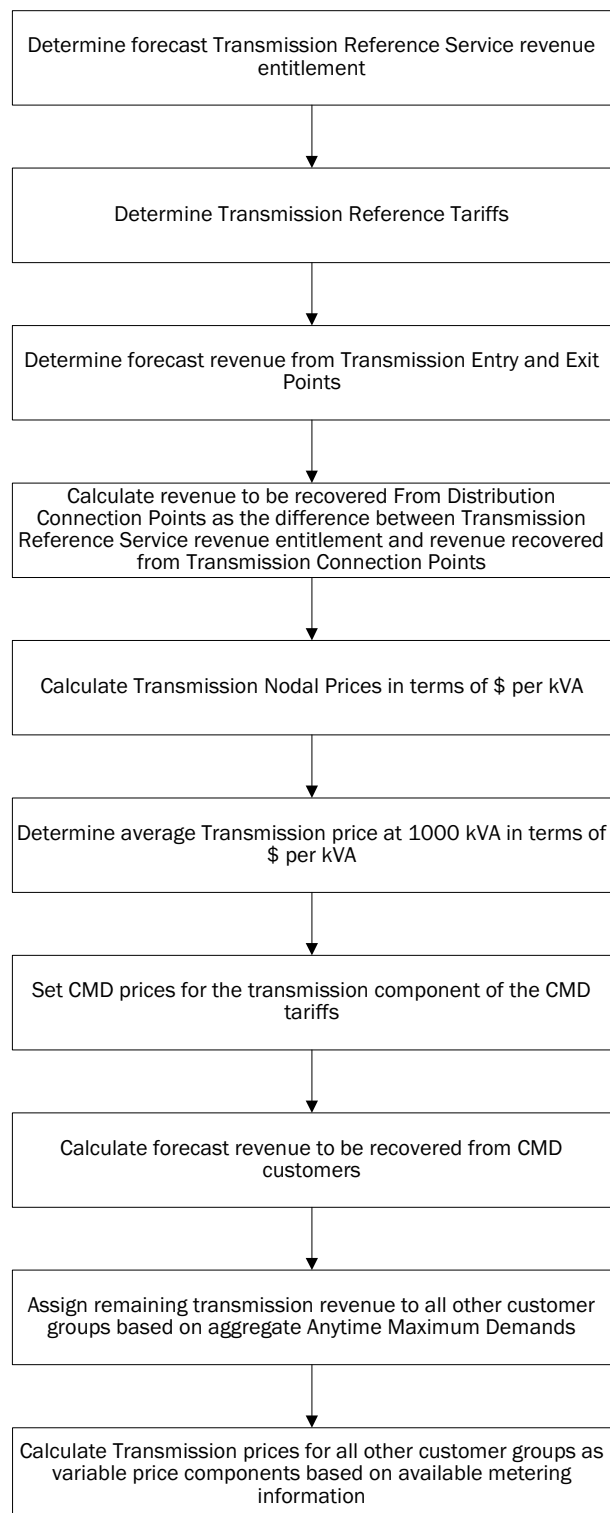


Figure 3 - Derivation of Transmission Tariff Component of Distribution System Flow Chart

Each step in this process to derive transmission component of the distribution system reference tariffs is described in more detail as follows. The first two steps of determining

the revenue entitlement and prices for transmission connected users have been covered earlier.

6.3.2 Calculate the Forecast Revenue to be recovered from Distribution-Connected Users

It is assumed at this stage that the forecast transmission revenue entitlement has been determined and transmission reference tariffs set. By applying the reference tariffs to the forecast transmission-connected user data, the revenue to be recovered from transmission entry and exit points can be forecast. The residual is the revenue that must be recovered from connection points on the distribution system.

6.3.3 Calculate Transmission Nodal Prices in terms of \$ per kVA

To calculate the transmission prices in terms of \$ per kVA the zone substation power factors must be determined. The power factors are measured at the low voltage bus of the zone substations at system peak. To create a single nodal price the transmission use of system, common service and connection prices are added together for each zone substation. Multiplying that price by the power factor then provides the price in terms of \$/kVA.

There is an additional factor taken into account at this stage. The Urban and CBD prices are set to be uniform for distribution-connected users. To achieve this, a weighted average transmission nodal price and a weighted average power factor are used.

This step is taken for a number of reasons. It does not make sense for users across the Perth metropolitan area to see a range of prices depending on location. For example users can be connected to one zone substation for a period of time and then transferred to a different zone substation for operational reasons. Individual zone substation nodal prices would result in such a user seeing a price change although they had not changed anything from their perspective. From an administrative perspective it would be very difficult to manage such a situation. Price changes would also need to be managed within any side constraints imposed on price movements.

Another reason for this approach is that nodal prices are designed to give users an economic signal in terms of location. However, in an urban environment it is difficult for users to respond to any economic signal because land zoning and availability will normally be the determining factor in location rather than cost of supply.

This process produces a set of zone substation prices that are individual for Rural, Mixed and Mining substations and uniform for the CBD and Urban substations. These transmission nodal prices apply to connection points on the distribution system with demands equal to or greater than 7,000 kVA. This principle is established because the cost that a 7,000 kVA user imposes on the transmission network will be the same whether connected to the distribution or transmission networks.

For users with CMD below 7,000 kVA the factor of load diversity becomes more relevant. In addition, the price must be structured to fit into the bundled tariff structure for all CMD users with demands greater than 1,000 kVA.

6.3.4 Determine Average Transmission Price at 1,000 kVA

At this stage we have the transmission nodal prices at 7,000 kVA. We also have established that the transmission price in terms of \$/kVA at 1,000 kVA will be uniform for all users and will be the same from 0 to 1,000 kVA. The task is to establish that uniform price.

Transmission costs are allocated to all users on the basis of anytime peak kVA demand. The transmission price is simply the revenue to be recovered from users with demands below 1,000 kVA divided by the sum of the anytime maximum demands of all those users.

The anytime maximum demands are not metered for the vast majority of users with demands below 1,000 kVA. The energy consumption is metered and the anytime maximum demands are estimated by applying load factors based on Industry Codes. The industry codes and associated load factors were developed using sample data for actual representative user types.

At this stage the size of the revenue pool is not established. The revenue pool will be the amount defined by the following formula:

$$RP_{\text{Below 1,000}} = RP_{\text{Total}} - RP_{\text{Over 7,000}} - RP_{\text{1,000 to 7,000}}$$

where,

$RP_{\text{Below 1,000}}$ = revenue to be recovered from users with demands below 1,000 kVA

RP_{Total} = revenue to be recovered from all distribution connected users

$RP_{\text{Over 7,000}}$ = revenue to be recovered from users with demands greater than 7,000 kVA

$RP_{\text{1,000 to 7,000}}$ = revenue to be recovered from users with demands between 1,000 and 7,000 kVA

This equation has unknowns in several terms at this stage. The revenue to be recovered from users with demands greater than 7,000 kVA is known because it is equal to the forecast demands of those users multiplied by the nodal price for each user.

The next step is to determine the pricing structure for users with demands between 1,000 and 7,000 kVA. To facilitate the bundling of transmission and distribution components in reference tariffs for connection points on the distribution system the transmission price structure must be consistent with the distribution price structure. For these users this means the prices will be in "rate block" structure and take the form:

$$\text{User Charge}_{\text{1,000 to 7,000}} = (\text{Price}_{\text{At 1,000}} * 1,000 \text{ kVA}) + (\text{Price}_{\text{1,000 to 7,000}} * (\text{CMD}_{\text{User}} - 1,000 \text{ kVA}))$$

Where:

$\text{User Charge}_{\text{1,000 to 7,000}}$ = the use of system charge for a user with CMD between 1,000 and 7,000 kVA

$\text{Price}_{\text{At 1,000}}$ = the average use of system price for all users with CMD below 1,000 kVA

Price_{1,000 to 7,000} = the use of system for this user with CMD between 1,000 and 7,000 kVA

CMD_{User} = the contract maximum demand for that user

The Price_{1,000 to 7,000} will be different for each zone substation but can be calculated by the formula:

$$\text{Price}_{1,000 \text{ to } 7,000} = [(\text{Price}_{\text{At } 7,000} * 7,000 \text{ kVA}) - (\text{Price}_{\text{At } 1,000} * 1,000 \text{ kVA})] / 6,000 \text{ kVA}$$

So we now have a formula to calculate the price for each user with CMD between 1,000 and 7,000 kVA with the unknown being the price at 1,000 kVA. We now have a single unknown (Price_{At 1,000}) that can now be solved in the above equation which now must be expanded as below.

Original Equation:

$$\text{RP}_{\text{Below } 1,000} = \text{RP}_{\text{Total}} - \text{RP}_{\text{Over } 7,000} - \text{RP}_{1,000 \text{ to } 7,000}$$

Expansion of each term:

$$\text{RP}_{\text{Below } 1,000} = \sum \text{User anytime maximum demands multiplied by Price At } 1,000$$

RP_{Total} = Total transmission revenue entitlement allocated to distribution-connected users

RP_{Over 7,000} = \sum Individual demands for users greater than 7,000 kVA anytime maximum demands multiplied by the nodal price at the zone substation to which the user is connected

RP_{1,000 to 7,000} = \sum User charges for all users with CMDs between 1,000 and 7,000 kVA

At this stage of the process we have the average price at and below 1,000 kVA, the nodal price for each zone substation for demands between 1,000 and 7,000 kVA and the nodal price for demands greater than 7,000 kVA. This has set the transmission tariffs for CMD users.

The rate blocks were developed using the principle of a straight-line transition from the charge at 1,000 kVA to the charge at 7,000 kVA. When converted back to prices the actual prices at any demand can be mapped and in fact the transition from a flat price below 1,000 kVA to a flat price above 7,000 kVA is a 1/x curve. The following graph illustrates the price outcomes for the above process. A number of substations have been chosen to represent the range of prices across urban and rural substations

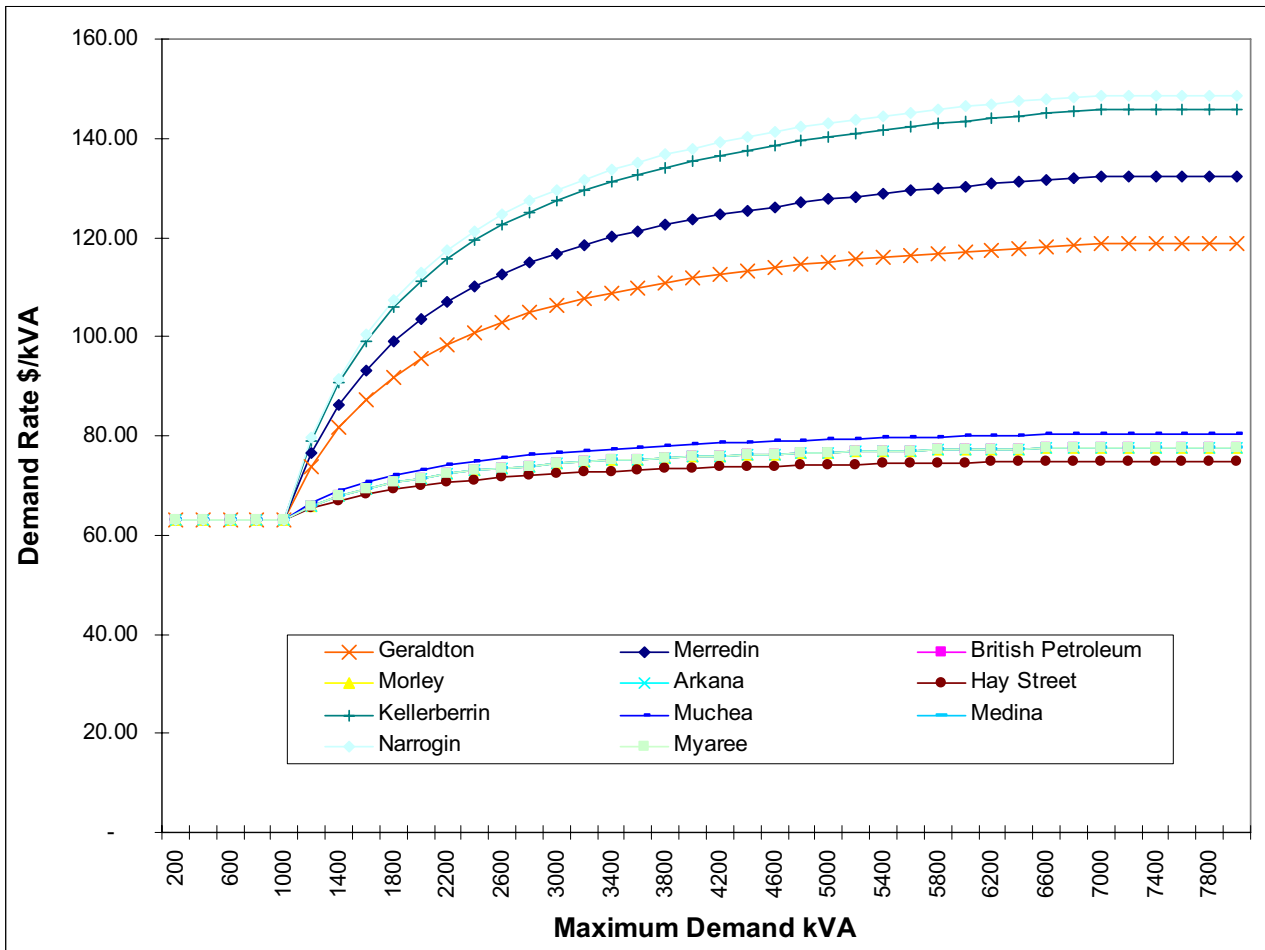


Figure 4 - Rate Blocks Example

6.3.5 Calculate Transmission Revenue to be recovered from users with demands below 1,000 kVA

This has been determined in the previous section in that the revenue is the average price multiplied by the sum of the anytime maximum demands of all users with demands less than 1,000 kVA.

6.3.6 Calculate Transmission Prices for all other Customer Groups

The first step in this process is to allocate the total revenue entitlement for all users with demands below 1,000 kVA to the customer groups within this category. The customer groups are restated for reference.

- General Business Large (300-1,000 kVA MD)
- General Business Medium (100-300 kVA MD)
- General Business Small (15-100 kVA MD)
- Small Business (<15 kVA MD)
- Residential
- Streetlights
- Unmetered Supplies

The result of this process is an amount of revenue that must be recovered within each customer group. At this stage the customer group users are mapped to reference tariff groups together with their associated revenues. We then have revenue entitlements assigned to reference tariffs. The process then becomes one of matching the revenue entitlement to metered information to produce tariff components.

In the case of Transmission reference tariff components the cost pools are allocated on the basis of demand. The tariffs now being considered do not have metered values for demand and on that basis; energy is used as a proxy for demand. The revenue is recovered entirely through the variable component of the tariffs, which in each of these tariffs is the energy rate. Thus the tariff components are in terms of cents per kWh.

In the case of unmetered supplies, streetlights, energy small and energy large tariffs the price is calculated by the simple formula:

$$\text{Price}_{\text{Tariff}} = \text{Forecast Revenue Entitlement Tariff} / \text{Total Forecast Energy for Tariff}$$

In the case of the time of use energy tariffs the transmission revenue allocated to those tariffs is recovered through both the on-peak and off-peak energy amounts. It is essentially the on-peak demand and therefore on-peak energy that drives the cost of the transmission network. However off-peak energy must also be served and a proportion of the revenue is recovered through the off-peak energy.

In fact approximately 30% of the forecast revenue entitlement is recovered through the off-peak energy and 70% through the on-peak energy. This ratio is chosen to achieve three outcomes:

- It clearly recovers most of the cost from on-peak usage which is the main driver of transmission costs;
- It allows for some of the costs to be recovered from off-peak energy usage to provide for equity between users with different load patterns; and
- It provides a clear economic signal to encourage off-peak energy usage that has the benefit of reducing network costs resulting in lower reference tariffs for all users.

6.3.7 Transmission Components of Distribution Reference Tariffs Forecast Revenue

The following table details the forecast transmission reference service revenue, by tariff, which will be collected from distribution connection points.

Table 12 - Transmission Reference Service Revenue Recovered from Distribution Connection Points for 2012/13 (\$M Nominal)

	kWh	ATMD kVA	Number Customers	Forecast Transmission Revenue Recovered
RT1 - Anytime Energy (Residential)	5,969,150,378	2,384,787	919,457	142.6
RT2 - Anytime Energy (Business)	1,496,333,433	784,175	100,583	44.9
RT3 - Time of Use Energy (Residential)	207,849,622	85,242	20,861	5.1
RT4 - Time of Use Energy (Business)	2,518,211,176	1,269,189	15,058	63.2
RT5 - High Voltage Metered Demand	379,773,483	135,881	126	9.9
RT6 - Low Voltage Metered Demand	1,347,275,236	443,495	1,449	36.6
RT7 - High Voltage Contract Maximum Demand	2,664,496,420	766,761	240	72.4
RT8 - Low Voltage Contract Maximum Demand	272,945,271	86,935	46	6.2
RT9 – Streetlighting	125,101,997	31,023	236,333	1.9
RT10 - Unmetered Supplies	37,641,309	5,859	15,612	0.4
RT11 - Distribution Entry	0	0	16	0.0
RT13 – Anytime Energy (Residential) Bi-directional	0	0	0	0
RT14 – Anytime Energy (Business) Bi-directional	0	0	0	0
RT15 – Time of Use (Residential) Bi-directional	0	0	0	0
RT16 – Time of Use (Business) Bi-directional	0	0	0	0
TOTAL	15,018,778,325	5,993,348	1,309,781	383.064

6.4 Annual Price Review

As described in the Access Arrangement, the reference service revenue is reviewed annually and adjusted if necessary for under or over recovery. Together with changes to user CMDs and DSOs (including zone substation maximum demands) it is consequently necessary to adjust prices annually also.

7 Derivation of Distribution System Tariff Components

This section describes the methodology used to calculate distribution reference tariff components.

The cost allocation process reflects the costs of supply for a customer group reasonably accurately. The process for determining prices for that customer group, while ideally similar in principle, is somewhat different in that it needs to take into account other factors such as equity, simplicity and efficiency (e.g. existing metering type).

Prices are determined with pre loss-adjusted ATMDs.

The Code requires uniform reference tariffs for all users with annual energy demand below 1 MVA, which equates to approximately all but 500 connected to the Western Power Network. Users with energy demand below 1 MVA will exhibit the full range of energy consumption patterns. It is therefore clear that any tariff structure will not be totally cost reflective. However, the assumptions that are made in allocating users to particular load groups and in deriving the cost of supply to those customer groups, and the consequent prices, are all considered reasonable. Through the process described in this paper the tariff settings are derived through as rigorous a process as is possible taking into account the information available and the requirements of the Code.

The distribution reference tariff components include the costs associated with the Tariff Equalisation Contribution (TEC). Section 7.12 of the Code sets out the requirement for Western Power to recover TEC through distribution reference tariffs for exit services (Western Power has extended this to include bi-directional services to be consistent with the Code Objective). Section 7.5 details the amounts associated with TEC that are embedded within the distribution reference tariff components.

7.1 Price Setting

This section details the methodology used to derive the tariff components from the cost pools, customer groups and locational zones.

7.1.1 Tariff Components

Distribution reference tariffs have been developed to enable users with different loads and usage patterns to choose the most appropriate form for them. The tariffs have fixed and variable components and are generally compatible with existing forms of user metering.

The components of each reference tariff are shown in the following table.

Table 13 - Distribution Reference Tariff Components

TARIFF	TARIFF COMPONENTS									
	Fixed Component	Energy Only	On Peak Energy	Off Peak Energy	Annual Metered Demand	Off Peak Discount Factor (%)	CMD	Demand/ Length for ATMD > 1,000 kVA	Fixed Metering Component	Variable Metering Component
RT1 - Energy Only (Residential)	✓	✓							✓	✓
RT2 - Energy Only (Business)	✓	✓							✓	✓
RT3 - Time of Use Energy (Residential)	✓		✓	✓					✓	✓
RT4 - Time of Use Energy (Business)	✓		✓	✓					✓	✓
RT5 - HV Metered Demand	✓				✓	✓		✓	✓	
RT6 - LV Metered Demand	✓				✓	✓		✓	✓	
RT7 - HV CMD	✓						✓	✓	✓	
RT8 - LV CMD	✓						✓	✓	✓	
RT9 - Streetlighting	✓	✓								
RT10 – Unmetered	✓	✓								
RT11 - Distribution Entry							✓	✓	✓	
RT13 – Energy only (Residential) Bi-directional	✓	✓							✓	✓
RT14 – Energy only (Business) Bi-directional	✓	✓							✓	✓
RT15 – Time of Use (Residential) Bi-directional	✓		✓	✓					✓	✓
RT16 – Time of Use (Business) Bi-directional	✓		✓	✓					✓	✓

7.1.2 RT1 and RT2 - Energy Only Tariff (Residential or Business)

The tariff comprises a fixed component (\$/annum) and a variable component (cents/kWh).

This is the simplest and most appropriate charging methodology for large numbers of small users with existing energy only metering.

The fixed and variable components are set to best recover the costs associated with the smaller customer groups. The tariff components for residential and business are different, reflecting the different costs of supply.

7.1.3 RT3 and RT4 - Time of Use Energy Tariff (Residential or Business)

The tariff comprises of a fixed component (\$/annum) and variable on-peak and off-peak energy components (cents/kWh).

The tariff components for residential and business are different, reflecting the different costs of supply.

The fixed component of the residential TOU is set to be the same as the fixed component of the residential energy only tariff.

Analysis of system load profiles by other utilities shows that typically 70% and 30% of network costs are associated with on-peak and off-peak load respectively. The on-peak

and off-peak energy components of the tariffs are set to recover these approximate proportions of the variable cost pools for the respective customer groups.

7.1.4 RT5 and RT6 - Metered Demand Tariff (HV and LV)

The metered demand tariff is based on a metered annual any time maximum demand with a discount to give credit for off peak energy usage as a proportion of total energy used.

The annual any time maximum demand is the rolling peak value over the previous 12 months. This rolling peak, rather than a monthly-metered peak, is chosen for compatibility with the CMD tariffs that are based on a contracted maximum demand set for a defined period. A tariff based on a metered monthly peak would need to be higher to recover the same revenue from these users due to the effect of seasonal variation in loads.

The principle of using this rolling peak is illustrated in Figure 5.

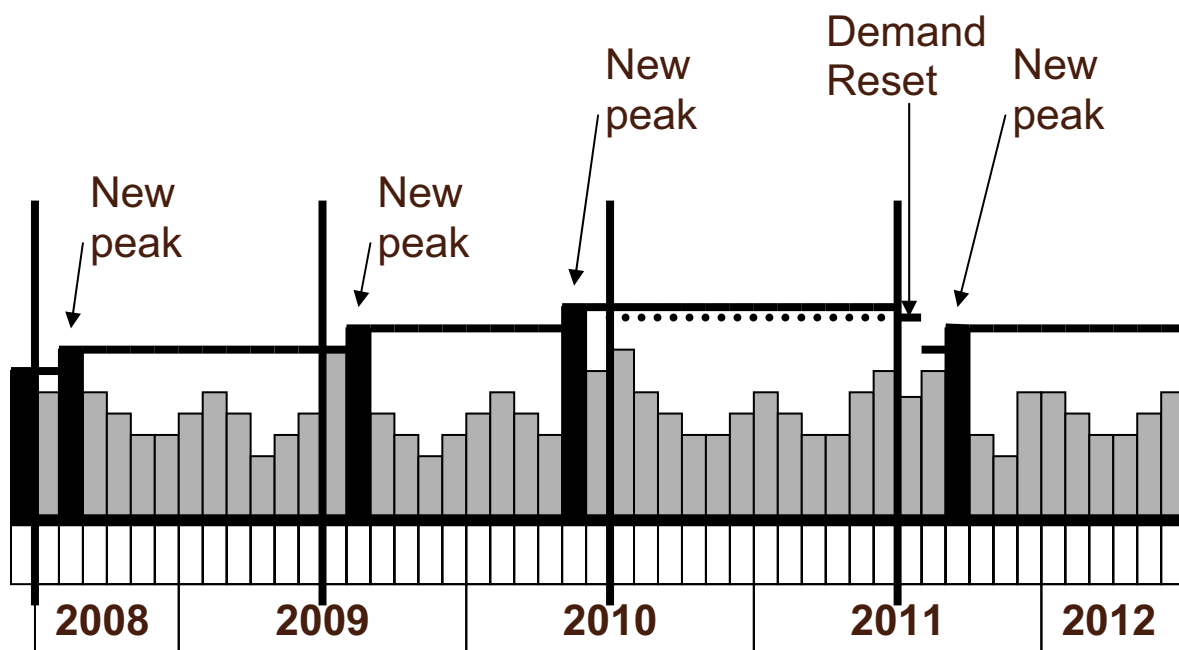


Figure 5 - Rolling Peak Illustration

There is no excess network usage charge for this tariff. The incentive to control the peak demand is significant because any half-hourly excess peak would be retained in the charges for a full 12 months. However, this is not intended to be unreasonably punitive to users and the negative impact of an extraordinary event would be assessed on a case by case basis.

The off peak discount is applied monthly, based on the metered off peak and total energy amounts. The discount is intended to create an incentive for users to use the network off-peak, and is provided as a specific reduction in the monthly charge depending on the proportion of off peak energy used.

The tariff also includes a demand-length component for demands greater than 1,000 kVA, identical to that applying in the CMD tariffs, based on the rolling annual peak.

The demand price is in rate block format. The transition points are set at 300 kVA and 1,000 kVA and the discount phases out at 1,500 kVA. At 1,500 kVA the tariff is set to be less attractive than the CMD tariffs for most users.

A discount mechanism applies to this tariff and is defined within the Price List.

7.1.5 RT7 and RT8 - Contract Maximum Demand Tariff (HV and LV)

The HV component of the CMD tariff is set to reflect a price that results in a user charge that is greater than the user incremental cost of supply but less than the stand-alone cost of supply. To achieve this outcome the two costs of service are modelled for each of the HV and LV CMD users.

Customers on transition tariffs are modelled, for pricing setting purposes, as contract maximum demand tariff customers.

The price structure is based on two particular components. There is a component that is directly linked to the nominated maximum demand which is in terms of \$/kVA. The second component is based on a combination of the maximum demand and the length of HV feeder from the zone substation to the user's connection point. This price component is expressed in terms of \$/kVA.km. Both of these tariff components are set to be uniform at 1,000 kVA and to be fully cost reflective at 7,000 kVA. This structure is consistent with the transmission CMD tariff for distribution connected customers.

The "demand/length" component of the tariff cannot be used in isolation because it distorts the charge for users either very close to the zone substation, where the cost could be virtually zero, or at a long distance from the substation, where the charge could be unreasonably high. The "demand" component of the tariff ameliorates this distortion because it recognises that the cost of supply of a user does not only relate to the distance from the zone substation but also relates to the demand that the user places on the network.

The effect of the pricing structure is that, for a fixed demand, the charge to a user increases as distance to the zone substation increases. This is effectively providing a fixed and variable component to the price for identical users depending on their distance from a zone substation. In a similar manner users at the same distance from a zone substation will pay more as their demand increases.

An additional feature of this price structure is that the price is not linear in relation to the demand.

For the demand only component, the price at 1,000 kVA is uniform for each of the locational zones and is reflective of the average HV cost of the network per KVA demand. However, as the demand increases, the price declines recognising that the cost of supply declines on a per unit basis, as the demand increases.

The demand/length component is set to zero at 1,000 kVA. This is consistent with the requirement that all tariffs are uniform below 1,000 kVA demand. The price above 7,000 kVA is uniform and the price varies continuously between 1,000 and 7,000 kVA.

In setting the CMD tariffs both components are adjusted so that for each of the users with demands greater than 1,000 kVA, their charge will fall between the incremental and stand-alone cost. The process to derive the settings is described as follows.

Demand Component of the CMD Tariff

The price at 7,000 kVA is individually set for each zone. The price is adjusted to provide a best fit so that users will see a charge that is between the incremental and stand-alone cost. This is done in combination with the demand/length component setting. However it is clear that the price at 7,000 kVA should reflect the actual costs of the networks that supply

these users. As such the cost for the CBD zone will be the highest, the Urban zone the next highest and so on so that the rural zone is the cheapest.

At this stage we have the distribution nodal prices at 7,000 kVA. We also have established that the distribution price in terms of \$/kVA at 1,000 kVA will be uniform for all users and will be the same from 0 to 1,000 kVA. The task is to establish that uniform price. At 1,000 kVA the demand/length price is zero so the demand price should reflect the average network price for all users in terms of \$/kVA.

Distribution costs are allocated to all users on the basis of anytime peak kVA demand adjusted for losses. The distribution price is simply the revenue to be recovered from users with demands below 1,000 kVA divided by the sum of the anytime maximum demands of all those users.

The anytime maximum demands are not metered for the vast majority of users with demands below 1,000 kVA. The energy consumption is metered and the anytime maximum demands are estimated by applying load factors based on "Industry Codes". The industry codes and associated load factors were developed using sample data for actual representative user types.

At this stage the size of the revenue pool for users with demands below 1,000 kVA is not established. The revenue pool will be the amount defined by the following formula:

$$RP_{\text{Below 1,000}} = RP_{\text{Total}} - RP_{\text{Over 7,000}} - RP_{\text{1,000 to 7,000}}$$

where:

$RP_{\text{Below 1,000}}$ = revenue to be recovered from users with demands below 1,000 kVA

RP_{Total} = revenue to be recovered from all distribution users

$RP_{\text{Over 7,000}}$ = revenue to be recovered from users with demands greater than 7,000 kVA

$RP_{\text{1,000 to 7,000}}$ = revenue to be recovered from users with demands between 1,000 and 7,000 kVA

This equation has unknowns in each of the terms at this stage. The revenue pools will only be determined when the CMD tariff settings are established and the prices can be applied to the forecast user data for users with demands greater than 1,000 kVA. The price at 7,000 kVA is set by graphically plotting the charge outcomes for each of the users with demands above 7,000 kVA, in the locational zones, and setting a price that puts the charge outcomes between the incremental and stand-alone cost of supply. Graphs demonstrating this are included in section 7.2.

To facilitate the solving of the remaining terms of this equation the pricing settings for users with demands between 1,000 and 7,000 kVA must be determined. The tariffs are defined in terms of "rate block" structure and, for the demand component of the tariff, take the form:

$$\text{User Demand Charge}_{\text{1,000 to 7,000}} = (\text{Price}_{\text{At 1,000}} * 1,000 \text{ kVA}) + (\text{Price}_{\text{1,000 to 7,000}} * (\text{CMD}_{\text{User}} - 1,000 \text{ kVA}))$$

where:

User Demand Charge $_{1,000 \text{ to } 7,000}$ = the demand charge for a user with CMD between 1,000 and 7,000 kVA

Price $_{\text{At } 1,000}$ = the average demand price for all users with CMD below 1,000 kVA

Price $_{1,000 \text{ to } 7,000}$ = the incremental demand price for this user with CMD between 1,000 and 7,000 kVA

CMD $_{\text{User}}$ = the contract maximum demand for that user

The Price $_{1,000 \text{ to } 7,000}$ will be different for each locational zone but can be calculated by the formula:

$$\text{Price}_{1,000 \text{ to } 7,000} = [(\text{Price}_{\text{At } 7,000} * 7,000 \text{ kVA}) - (\text{Price}_{\text{At } 1,000} * 1,000 \text{ kVA})] / 6,000 \text{ kVA}$$

So we now have a formula to calculate the price for each user with CMD between 1,000 and 7,000 kVA with the unknown being the price at 1,000 kVA. The price at 7,000 kVA has been previously set.

We now have a single unknown (Price At 1,000) that can now be solved in the above equation which now must be expanded as below.

Original Equation:

$$\text{RP}_{\text{Below } 1,000} = \text{RP}_{\text{Total}} - \text{RP}_{\text{Over } 7,000} - \text{RP}_{1,000 \text{ to } 7,000}$$

Expansion of each term:

$$\text{RP}_{\text{Below } 1,000} = \sum \text{User anytime maximum demands multiplied by Price At } 1,000$$

$$\text{RP}_{\text{Total}} = \text{Total HV network revenue entitlement}$$

$$\text{RP}_{\text{Over } 7,000} = \sum \text{Individual demands for users greater than } 7,000 \text{ kVA anytime maximum demands multiplied by the zonal price at the zone substation to which the user is connected}$$

$$\text{RP}_{1,000 \text{ to } 7,000} = \sum \text{User charges for all users with CMDs between } 1,000 \text{ and } 7,000 \text{ kVA}$$

At this stage of the process we have the average price at and below 1,000 kVA, the demand price formula for each locational zone for demands between 1,000 and 7,000 kVA and the zonal price for demands greater than 7,000 kVA. This has set the demand component of the CMD tariffs.

Demand/Length Component of the CMD Tariff

The demand/length component of the tariff is set at zero at 1,000 kVA. It is also uniform at and above 7,000 kVA. The tariff is also designed to be expressed in “rate block” format so that the price is in terms of an incremental price above 1,000 kVA and up to 7,000 kVA and a uniform price above 7,000 kVA.

The price between 1,000 and 7,000 kVA is expressed as:

$$\text{Price}_{1,000 \text{ to } 7,000} = [(\text{Price}_{\text{At } 7,000} * 7,000 \text{ kVA}) - (\text{Price}_{\text{At } 1,000} * 1,000 \text{ kVA})] / 6,000 \text{ kVA}$$

The price settings are established in the same process as setting the demand settings in that the incremental and stand-alone costs are graphically plotted for every CMD user within each zone and the price settings are adjusted so that the user charges fit between the limits. Graphs demonstrating this are included in section 7.2.

At this stage, the price settings are established for both the demand and demand/length price components of the CMD tariffs. The forecast HV network revenue for the HV and LV CMD users can be calculated by applying the prices to the forecast user data and summing the charges for all users.

The prices for both the demand and demand/length components of the prices are illustrated in Figure 11.

7.1.6 Metering

The ideal way to price metering is to have a separate charge for the particular type of meter for each user. While this approach is technically feasible, it is extremely complex due to the technical and commercial variations in metering arrangements.

The alternative and more efficient approach is to use a standard metering charge in conjunction with each reference tariff to reflect the average cost of metering deployed to support application of the tariff.

However, the variation in metering costs for users within each tariff group can be marked and an average metering charge would disadvantage all smaller users. For example:

- residential users may be either single or three phase; and
- small business users with energy only or TOU energy metering may have meters direct- or CT-connected.

Therefore, it is appropriate for small users to have a charge that varies with usage and therefore reflects the variation in metering costs.

The metering price structure is as follows:

Reference Tariff Type	Metering Price
Energy	Cents/kWh and \$ fixed annual charge
TOU Energy	Cents/kWh and \$ fixed annual charge
Metered Demand	\$ fixed annual charge
CMD	\$ fixed annual charge

7.1.7 Administration

An administration charge is published separately in conjunction with the CMD tariff, but is incorporated in the variable component of all the other tariffs.

The setting of the components in the metered demand tariff ensures compatibility with the administration price for the CMD tariff.

7.1.8 RT9 - Streetlighting

Separate Network Use of System and Asset prices are designed to best recover the costs of providing streetlight services.

The use of system price comprises a fixed and variable charge similar to other low voltage tariffs, based on the expected daily cycle of energy usage.

The asset charge varies with the size and type of luminaire and is based on the annualised cost of capital and maintenance associated with each.

7.1.9 RT10 - Unmetered Supplies

The unmetered supplies tariff comprises a fixed and variable charge similar to other low voltage tariffs, designed to best recover the costs of providing these services based on the expected daily cycle of energy usage.

7.1.10 RT13 to16 -Bi-directional tariffs

The tariff components for these tariffs are identical to tariffs RT1 to 4, as applicable.

7.2 Demonstration of Derivation of Distribution Components of Distribution Reference Tariffs

7.2.1 CMD Demand Price Graphs

The following graphs illustrate that the proposed prices for the CMD tariffs are between incremental cost and stand-alone cost.

It is important to note that in the vast majority of cases the price will meet the requirements of section 7.3(b) of the Code. However, no pricing structure can be guaranteed to meet the Code requirement in every individual case. For example, if the price is reduced so that the charge is below the stand-alone cost for every single customer, there emerges cases where the price is then below the incremental cost for some other customers. The prices have been set to achieve a balance between all customers, while still meeting the requirements of section 7.3(b) of the Code.

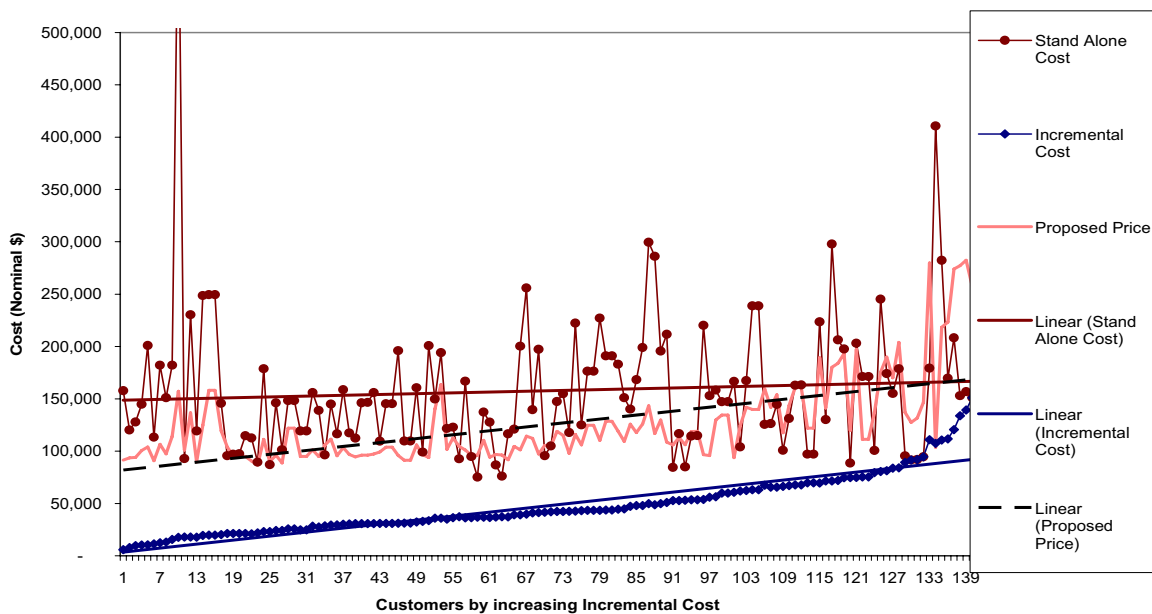


Figure 6 - Urban Zone

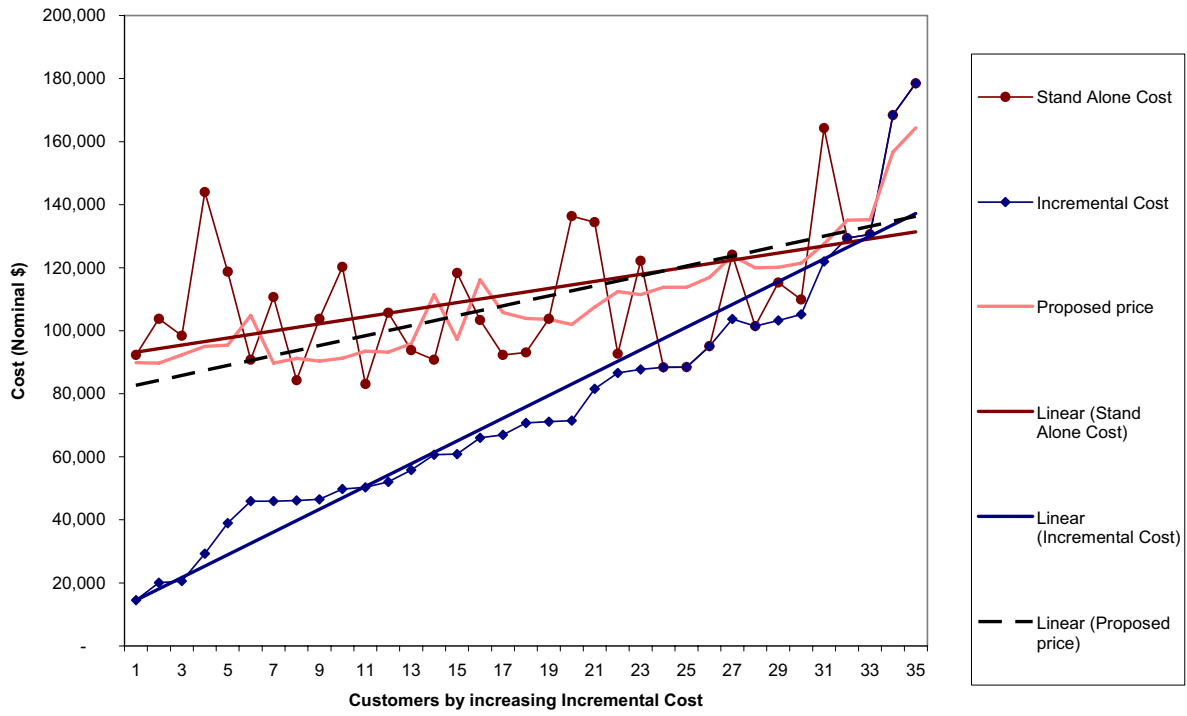


Figure 7 - CBD Zone

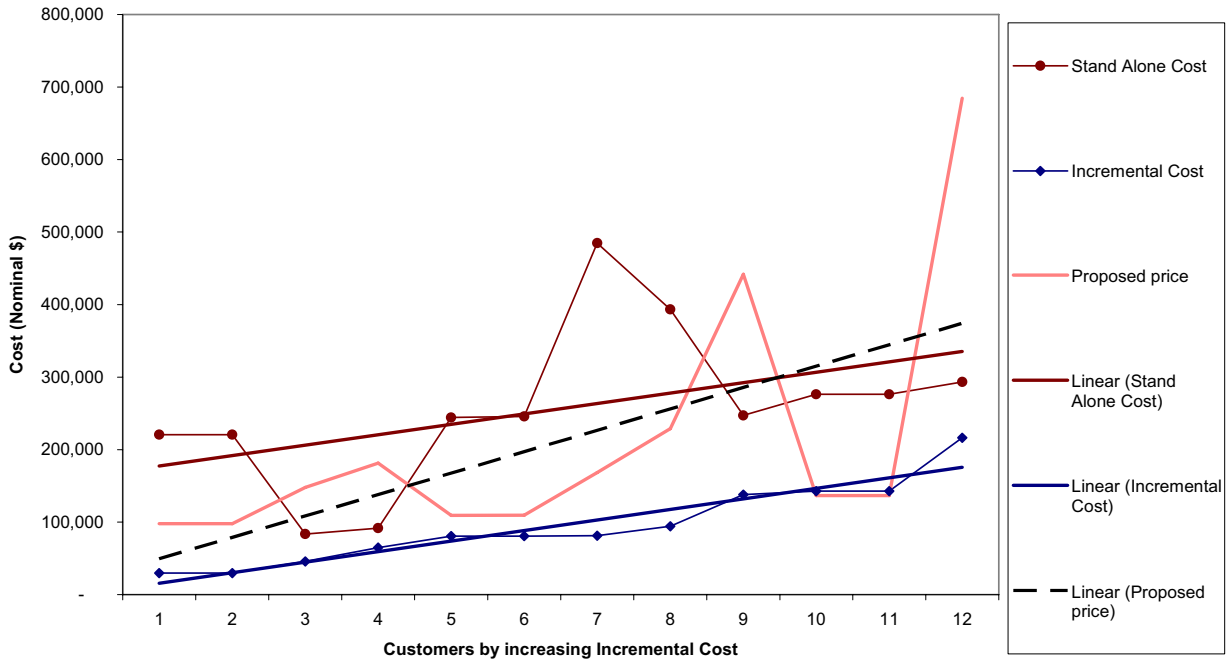


Figure 8 - Mining Zone

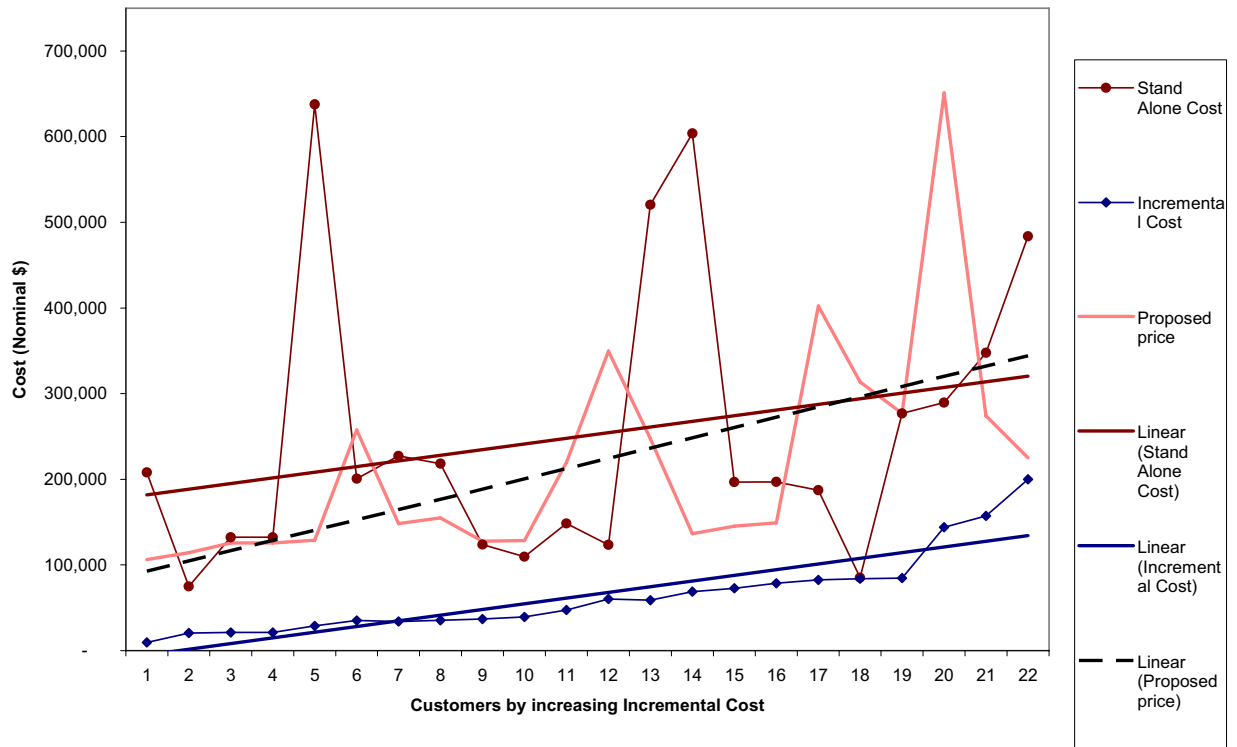


Figure 9 - Mixed Zone

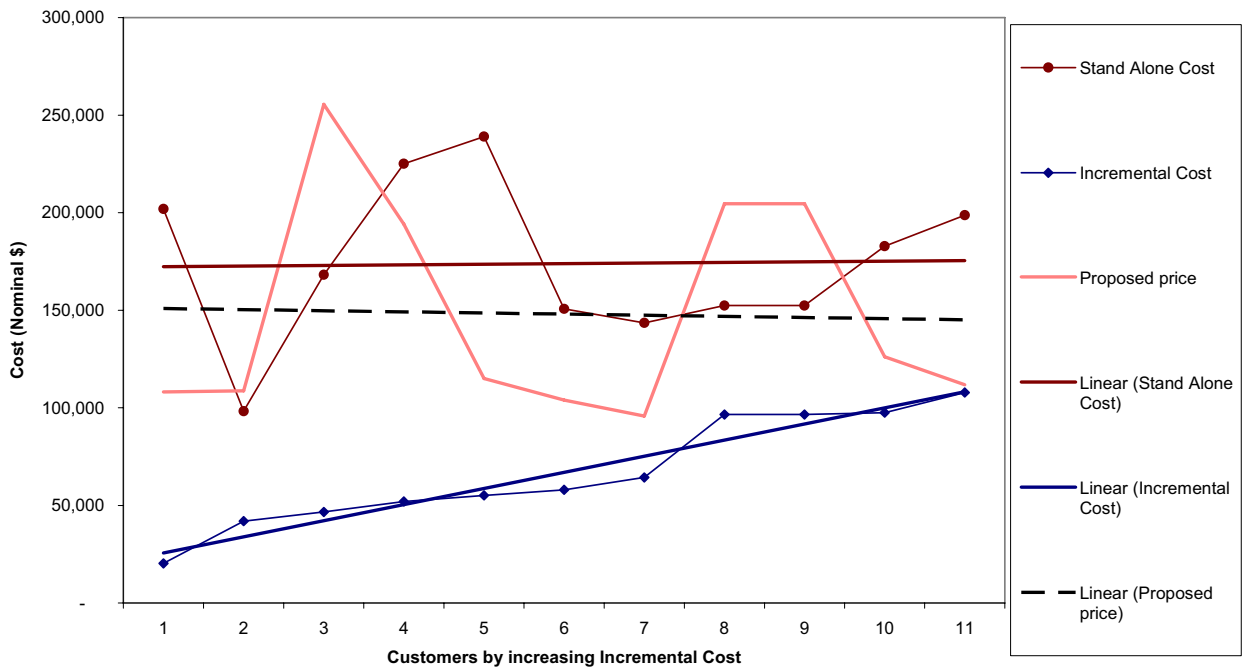


Figure 10 - Rural Zone

7.2.2 Demand/Length Graph

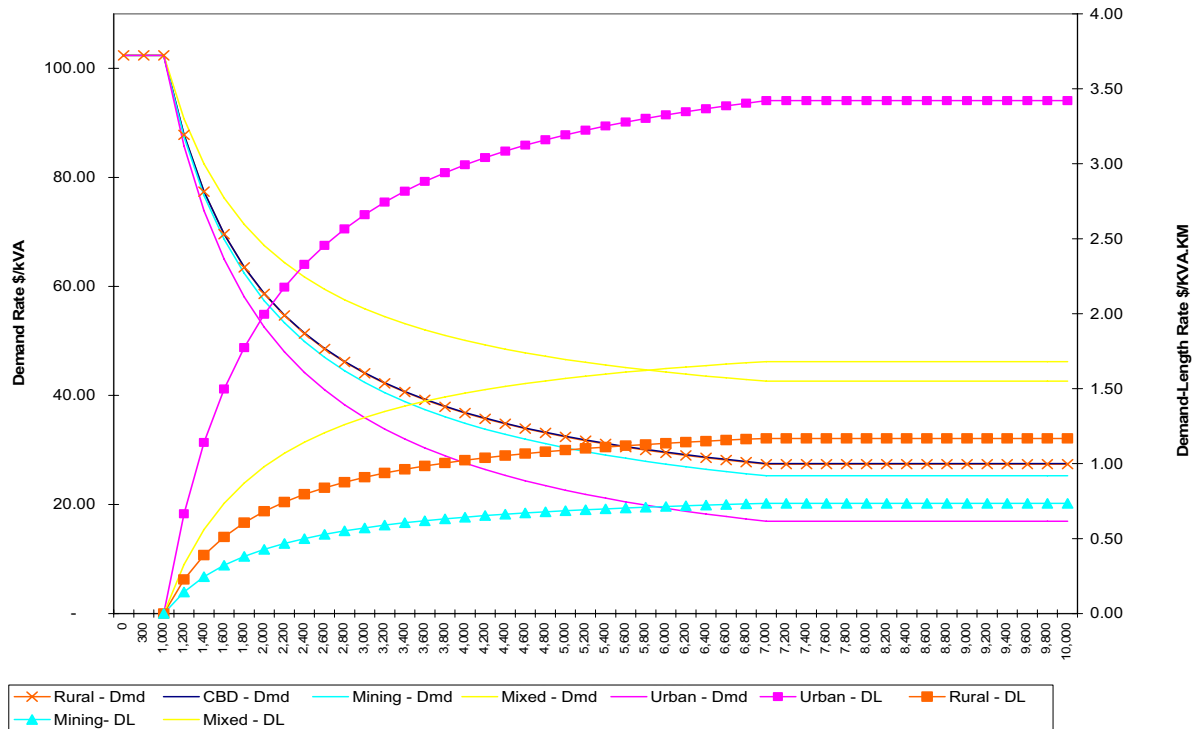


Figure 11 - Demand Length Rates and CMD Rates by Zone

7.2.3 Forecast Tariff Revenue

The following table details the forecast distribution reference service revenue, by tariff, which will be collected from distribution connection points.

Table 14 - Distribution Reference Service Revenue Recovered from Distribution Connection Points for 2012/13 (\$M Nominal)

	kWh	ATMD kVA	Number Customers	Forecast Distribution Revenue Recovered
RT1 - Anytime Energy (Residential)	5,969,150,378	2,384,787	919,457	598.9
RT2 - Anytime Energy (Business)	1,496,333,433	784,175	100,583	155.8
RT3 - Time of Use Energy (Residential)	207,849,622	85,242	20,861	18.8
RT4 - Time of Use Energy (Business)	2,518,211,176	1,269,189	15,058	184.0
RT5 - High Voltage Metered Demand	379,773,483	135,881	126	14.1
RT6 - Low Voltage Metered Demand	1,347,275,236	443,495	1,449	61.4
RT7 - High Voltage Contract Maximum Demand	2,664,496,420	766,761	240	39.5
RT8 - Low Voltage Contract Maximum Demand	272,945,271	86,935	46	8.8
RT9 – Streetlighting	125,101,997	31,023	236,333	32.0
RT10 - Unmetered Supplies	37,641,309	5,859	15,612	3.8
RT11 - Distribution Entry	0	0	16	0.5
RT13 – Anytime Energy (Residential) Bi-directional	0	0	0	0
RT14 – Anytime Energy (Business) Bi-directional	0	0	0	0
RT15 – Time of Use (Residential) Bi-directional	0	0	0	0
RT16 – Time of Use (Business) Bi-directional	0	0	0	0
TOTAL	15,018,778,325	5,993,348	1,309,781	1,117.7
Forecast over-recovery (compared to Distribution)				0.3

Reference Service Revenue of \$1,117.4m)				
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7.3 Demonstration Distribution Reference Tariffs are between incremental and stand-alone cost of service provision

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. The following table demonstrates the outcomes for 2012/13.⁵

Table 15 - Demonstration that Reference Tariffs are between incremental and stand-alone cost of service provision for 2012/13
(\$M Nominal)

Reference Service	Reference Tariff	Incremental Cost of Service	Stand-alone Cost of Service Provision	Forecast Revenue Recovered from Reference Tariff
A1	RT1	549.6	806.5	741.5
A2	RT2	171.3	427.4	200.7
A3	RT3	19.4	275.3	23.9
A4	RT4	260.2	516.1	247.2
A5	RT5	25.3	265.2	24.1
A6	RT6	76.5	332.4	98.0
A7	RT7	82.9	102.4	111.9
A8	RT8	8.4	12.4	15.0
A9	RT9	28.8	284.6	33.9
A10	RT10	1.4	280.5	4.1
C1	RT13	0	0	0
C2	RT14	0	0	0
C3	RT15	0	0	0
C4	RT16	0	0	0

7.4 Annual Price Review

At the end of each year, the actual distribution reference service revenue entitlement is reconciled against the actual distribution reference service revenue recovered for that year, and a correction factor applied to the forecast reference service revenue for the subsequent year. Tariffs are then adjusted to recover the corrected revenue for the following year and the new prices published.

Distribution prices can be volatile due to matters beyond the control of any one user. In order to minimise this volatility and reduce the commercial uncertainty for users, revenues are subject to an annual "side constraint" (effectively a limit on annual reference tariff revenue changes) as detailed in the Access Arrangement. This side constraint will, by extension, have a controlling effect on price movements.

⁵ Please see section 8.14 for the reasons why this requirement is not being met in 12/13 for all tariffs.

7.5 Tariff Equalisation Contribution (TEC) in the Distribution Components of Distribution Reference Tariffs

This section details the amounts associated with TEC that are embedded within the distribution reference tariff components.

Western Power pays TEC to the WA State Government to contribute towards maintaining the financial viability of Horizon Power under Part 9A of the *Electricity Industry Act 2004*. The purpose of TEC is to enable the regulated retail tariffs for electricity that is not supplied from the South West interconnected system (SWIS) to be, so far as is practicable, the same as the regulated retail tariffs for electricity that is supplied from the SWIS.

The graphs and tables detailed in sections 7.2 and 0 are inclusive of TEC. The tables that follow in this section separate out just the amounts of TEC that are embedded within the distribution reference tariff components.

7.5.1 TEC Forecast Revenue

The following table details the forecast TEC, by tariff, which will be collected from distribution connection points.

Table 16 - TEC Recovered from Distribution Connection Points for 2012/13 (\$M Nominal)

	kWh	ATMD kVA	Number Customers	Forecast TEC Recovered
RT1 - Anytime Energy (Residential)	5,969,150,378	2,384,787	919,457	89.2
RT2 - Anytime Energy (Business)	1,496,333,433	784,175	100,583	28.4
RT3 - Time of Use Energy (Residential)	207,849,622	85,242	20,861	3.3
RT4 - Time of Use Energy (Business)	2,518,211,176	1,269,189	15,058	36.4
RT5 - High Voltage Metered Demand	379,773,483	135,881	126	5.5
RT6 - Low Voltage Metered Demand	1,347,275,236	443,495	1,449	19.1
RT7 - High Voltage Contract Maximum Demand	2,664,496,420	766,761	240	2.5
RT8 - Low Voltage Contract Maximum Demand	272,945,271	86,935	46	1.3
RT9 – Streetlighting	125,101,997	31,023	236,333	0.7
RT10 - Unmetered Supplies	37,641,309	5,859	15,612	0.2
RT11 - Distribution Entry	0	0	16	0.0
RT13 – Anytime Energy (Residential) Bi-directional	0	0	0	0
RT14 – Anytime Energy (Business) Bi-directional	0	0	0	0
RT15 – Time of Use (Residential) Bi-directional	0	0	0	0
RT16 – Time of Use (Business) Bi-directional	0	0	0	0
TOTAL	15,018,778,325	5,993,348	1,309,781	186.6

7.5.2 TEC Tariff Components – Use of System

The following table details the amounts associated with TEC that are embedded within the distribution reference tariff use of system components.

Table 17

	Fixed TEC	Variable TEC		
	c/day	c/kWh	On Peak c/kWh	Off Peak c/kWh
Reference tariff 1 - RT1				
TEC	0.000	1.495	-	-
Reference tariff 2 - RT2				
TEC	0.000	1.896	-	-
Reference tariff 3 - RT3				
TEC	0.000	-	2.579	0.737
Reference tariff 4 - RT4				
TEC	0.000	-	1.938	0.554
Reference tariff 9 - RT9				
TEC	0.000	0.592	-	-
Reference tariff 10 - RT10				
TEC	0.000	0.562	-	-

7.5.3 TEC Tariff Components – Metered Demand

The following table details the amounts associated with TEC that are embedded within the distribution reference tariff metered demand components.

Table 18

Demand (kVA) (Lower to upper threshold)	RT5 – TEC		RT6 – TEC	
	Fixed c/day	Demand (in excess of lower threshold) c/kVA/day	Fixed c/day	Demand (in excess of lower threshold) c/kVA/day
0 to 300	0.000	14.490	0.000	14.490
300 to 1000	4,347.000	13.978	4,347.000	13.978
1000 to 1500	14,131.600	5.084	14,131.600	5.084

7.5.4 TEC Tariff Components – Demand Prices

The following table details the amounts associated with TEC that are embedded within the distribution reference tariff demand components.

Table 19

Pricing Zone	RT 7 and 8 – TEC		
	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)
CBD	4,759.574	-0.793	0.000
Goldfields Mining	4,759.574	-0.793	0.000
Mixed	4,759.574	-0.793	0.000
Rural	4,759.574	-0.793	0.000
Urban	4,759.574	-0.793	0.000

Note: Users with demand greater than 7,000 kVA do not pay TEC. These users can usually choose between being transmission or distribution connected. TEC does not apply to transmission connected users. Charging TEC to distribution connected users with demand greater than 7,000 kVA would create a perverse incentive for users to transition to being transmission connected due to the additional charge. The variable demand charge between 1,000 and 7,000 kVA is negative so that when added to the fixed demand charge users with demand greater than 7,000 kVA do not pay TEC.

7.5.5 TEC Tariff Components – LV prices

The following table details the amounts associated with TEC that are embedded within the distribution reference tariff RT8.

Table 20

	Fixed	Demand (c/day)
LV Prices	0.00	1.793/kVA

8 Price Changes

The following tables detail the % change in the 2012/13 tariff components when compared to the 2011/12 tariff components.

8.1 Use of System Prices

The % changes in the following table are applicable for reference tariffs: RT1, RT2, RT3, RT4, RT9, RT10, RT13, RT14, RT15 and RT16.

Table 21

		Fixed Price	Energy Rates		
		% Change	Anytime % Change	On Peak % Change	Off Peak % Change
Reference tariff 1 - RT1					
	Transmission		18.18%		
	Distribution	55.38%	28.39%		
	Bundled Tariff	55.38%	25.39%		
	Metering	-44.13%	-53.07%		
Reference tariff 2 – RT2					
	Transmission		23.53%		
	Distribution	118.10%	15.94%		
	Bundled Tariff	118.10%	17.93%		
	Metering	-44.13%	-53.07%		
Reference tariff 3 - RT3					
	Transmission			12.48%	12.48%
	Distribution	60.76%		37.34%	37.92%
	Bundled Tariff	60.76%		29.21%	30.14%
	Metering	-44.13%		-59.08%	-59.08%
Reference tariff 4 - RT4					
	Transmission			11.10%	11.10%
	Distribution	57.35%		37.61%	35.26%
	Bundled Tariff	57.35%		29.53%	27.62%
	Metering	-44.18%		-52.26%	-52.26%
Reference tariff 9 – RT9					
	Transmission		-6.49%		
	Distribution	58.76%	-20.74%		
	Bundled Tariff	58.76%	-16.50%		
Reference tariff 10 – RT10					
	Transmission		-7.68%		
	Distribution	115.12%	-36.67%		
	Bundled Tariff	115.12%	-31.31%		
Reference tariff 13 – RT13					
	Transmission	-	-		
	Distribution	-	-		
	Bundled Tariff				
	Metering	-	-		
Reference tariff 14 – RT14					
	Transmission	-	-		
	Distribution	-	-		
	Bundled Tariff				
	Metering	-	-		

Reference tariff 15 – RT15					
	Transmission	-		-	-
	Distribution	-		-	-
	Bundled Tariff				
	Metering	-		-	-
Reference tariff 16 – RT16					
	Transmission	-		-	-
	Distribution	-		-	-
	Bundled Tariff				
	Metering	-		-	-

8.2 Streetlight Asset Prices

The % changes in the following table are applicable for reference tariff: **RT9**.

Table 22

Light Specification	Annual Charge % Change
42W CFL SE	13.7%
42W CFL BH	13.7%
42W CFL KN	13.7%
70W MH	13.7%
70W HPS	13.7%
125W MV	13.7%
150W MH	13.7%
150W HPS	13.7%
250W MH	13.7%
250W HPS	13.7%

Table 23

Light Specification	Annual Charge % Change
50W MV	13.7%
60W MV	
70W MV	
80W MV	13.7%
150W MV	
250W MV	13.7%
400W MV	13.7%
40W FLU	
80W HPS	
125W HPS	
60W INC	
100W INC	
80W MH	
125W MH	
250W LPS	

8.3 Metered Demand Prices

The % changes in the following table are applicable for reference tariff: **RT5**.

Table 24

Demand (kVA) (Lower to upper threshold)	Transmission		Distribution		Bundled Tariff	
	Fixed % Change	Demand (in excess of lower threshold) % Change	Fixed % Change	Demand (in excess of lower threshold) % Change	Fixed % Change	Demand (in excess of lower threshold) % Change
0 to 300		15.31%	20.3%	16.5%	20.3%	16.0%
300 to 1000	15.31%	15.31%	16.6%	15.5%	16.0%	15.4%
1000 to 1500	15.31%	15.32%	15.9%	16.1%	15.6%	15.7%

The % changes in the following table are applicable for reference tariff: **RT6**.

Table 25

Demand (kVA) (Lower to upper threshold)	Transmission		Distribution		Bundled Tariff	
	Fixed % Changes	Demand (in excess of lower threshold) % Changes	Fixed % Change	Demand (in excess of lower threshold) % Change	Fixed % Change	Demand (in excess of lower threshold) % Change
0 to 300		15.31%	20.3%	17.0%	20.3%	16.3%
300 to 1000	15.31%	15.31%	17.1%	16.2%	16.4%	15.9%
1000 to 1500	15.31%	15.32%	16.6%	17.3%	16.1%	16.5%

8.4 Demand Prices

The % changes in the following table are applicable for reference tariff: **RT7 and RT8**.

Table 26

Zone Substation	TNI	Pricing Zone	Transmission			Distribution			Bundled		
			Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)
Cook Street	WCKT	CBD	-5.80%	19.87%	16.31%	30.1%	-44.1%	-19.8%	13.9%	1.6%	4.1%
Forrest Avenue	WFRT	CBD	-5.80%	19.87%	16.31%	30.1%	-44.1%	-19.8%	13.9%	1.6%	4.1%
Hay Street	WHAY	CBD	-5.80%	19.87%	16.31%	30.1%	-44.1%	-19.8%	13.9%	1.6%	4.1%
Milligan Street	WMIL	CBD	-5.80%	19.87%	16.31%	30.1%	-44.1%	-19.8%	13.9%	1.6%	4.1%
Wellington Street	WWNT	CBD	-5.80%	19.87%	16.31%	30.1%	-44.1%	-19.8%	13.9%	1.6%	4.1%
Black Flag	WBKF	Goldfields Mining	-5.80%	23.35%	21.09%	30.1%	-8.8%	10.3%	13.9%	20.3%	19.4%
Boulder	WBLD	Goldfields Mining	-5.80%	18.43%	16.48%	30.1%	-8.8%	10.3%	13.9%	15.7%	15.4%
Bounty	WBNY	Goldfields Mining	-5.80%	23.79%	22.52%	30.1%	-8.8%	10.3%	13.9%	22.0%	21.3%
West Kalgoorlie	WWKT	Goldfields Mining	-5.80%	23.12%	20.55%	30.1%	-8.8%	10.3%	13.9%	19.6%	18.7%

Zone Substation	TNI	Pricing Zone	Transmission			Distribution			Bundled		
			Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)
Albany	WALB	Mixed	-5.80%	17.13%	15.20%	30.1%	8.8%	15.3%	13.9%	15.4%	15.2%
Boddington	WBOD	Mixed	-5.80%	21.80%	17.64%	30.1%	8.8%	15.3%	13.9%	17.5%	16.8%
Bunbury Harbour	WBUH	Mixed	-5.80%	19.30%	15.53%	30.1%	8.8%	15.3%	13.9%	15.9%	15.4%
Busselton	WBSN	Mixed	-5.80%	17.45%	15.25%	30.1%	8.8%	15.3%	13.9%	15.5%	15.3%
Byford	WBYF	Mixed	-5.80%	21.93%	17.92%	30.1%	8.8%	15.3%	13.9%	17.7%	17.0%
Capel	WCAP	Mixed	-5.80%	17.97%	15.33%	30.1%	8.8%	15.3%	13.9%	15.6%	15.3%
Chapman	WCPN	Mixed	-5.80%	18.77%	16.84%	30.1%	8.8%	15.3%	13.9%	16.9%	16.5%
Darlington	WDTN	Mixed	-5.80%	22.14%	18.35%	30.1%	8.8%	15.3%	13.9%	18.1%	17.3%
Durlacher Street	WDUR	Mixed	-5.80%	23.11%	20.48%	30.1%	8.8%	15.3%	13.9%	20.0%	19.1%
Eneabba	WENB	Mixed	-5.80%	17.44%	15.25%	30.1%	8.8%	15.3%	13.9%	15.5%	15.3%
Geraldton	WGTM	Mixed	-5.80%	23.11%	20.48%	30.1%	8.8%	15.3%	13.9%	20.0%	19.1%
Marriott Road	WMRR	Mixed	-5.80%	19.29%	15.53%	30.1%	8.8%	15.3%	13.9%	15.9%	15.4%
Muchea	WMUC	Mixed	-5.80%	22.23%	18.53%	30.1%	8.8%	15.3%	13.9%	18.3%	17.4%
Northam	WNOR	Mixed	-5.80%	17.46%	15.25%	30.1%	8.8%	15.3%	13.9%	15.5%	15.3%
Picton	WPIC	Mixed	-5.80%	18.80%	15.46%	30.1%	8.8%	15.3%	13.9%	15.8%	15.4%
Rangeway	WRAN	Mixed	-5.80%	23.11%	20.48%	30.1%	8.8%	15.3%	13.9%	20.0%	19.1%
Sawyers Valley	WSVL	Mixed	-5.80%	17.40%	15.24%	30.1%	8.8%	15.3%	13.9%	15.5%	15.3%
Yanchep	WYCP	Mixed	-5.80%	22.11%	18.28%	30.1%	8.8%	15.3%	13.9%	18.0%	17.2%
Yilgarn	WYLN	Mixed	-5.80%	17.27%	15.22%	30.1%	8.8%	15.3%	13.9%	15.5%	15.2%
Baandee	WBDE	Rural	-5.80%	16.50%	14.96%	30.1%	2.0%	15.3%	13.9%	15.2%	15.0%
Beenup	WBNP	Rural	-5.80%	23.31%	21.32%	30.1%	2.0%	15.3%	13.9%	21.4%	20.4%
Bridgetown	WBTN	Rural	-5.80%	22.42%	19.33%	30.1%	2.0%	15.3%	13.9%	19.5%	18.5%
Carrabin	WCAR	Rural	-5.80%	16.25%	14.92%	30.1%	2.0%	15.3%	13.9%	15.1%	15.0%
Collie	WCOE	Rural	-5.80%	17.08%	15.06%	30.1%	2.0%	15.3%	13.9%	15.3%	15.1%
Coolup	WCLP	Rural	-5.80%	22.99%	20.59%	30.1%	2.0%	15.3%	13.9%	20.7%	19.7%
Cunderdin	WCUN	Rural	-5.80%	16.67%	14.99%	30.1%	2.0%	15.3%	13.9%	15.2%	15.0%
Katanning	WKAT	Rural	-5.80%	16.98%	15.05%	30.1%	2.0%	15.3%	13.9%	15.3%	15.1%
Kellerberrin	WKEL	Rural	-5.80%	16.55%	14.97%	30.1%	2.0%	15.3%	13.9%	15.2%	15.0%
Kojonup	WKOJ	Rural	-5.80%	22.01%	18.49%	30.1%	2.0%	15.3%	13.9%	18.7%	17.7%
Kondinin	WKDN	Rural	-5.80%	17.80%	15.18%	30.1%	2.0%	15.3%	13.9%	15.5%	15.2%
Manjimup	WMJP	Rural	-5.80%	22.40%	19.29%	30.1%	2.0%	15.3%	13.9%	19.5%	18.4%
Margaret River	WMRV	Rural	-5.80%	16.58%	14.98%	30.1%	2.0%	15.3%	13.9%	15.2%	15.0%
Merredin	WMER	Rural	-5.80%	16.76%	15.01%	30.1%	2.0%	15.3%	13.9%	15.3%	15.1%
Mirambeena	WMBN	Rural	-5.80%	20.48%	15.57%	30.1%	2.0%	15.3%	13.9%	16.1%	15.5%
Moora	WMOR	Rural	-5.80%	22.60%	19.73%	30.1%	2.0%	15.3%	13.9%	19.9%	18.8%
Mount Barker	WMBR	Rural	-5.80%	17.09%	15.06%	30.1%	2.0%	15.3%	13.9%	15.3%	15.1%
Narrogin	WNGN	Rural	-5.80%	16.51%	14.97%	30.1%	2.0%	15.3%	13.9%	15.2%	15.0%
Pinjarra	WPNJ	Rural	-5.80%	18.74%	15.32%	30.1%	2.0%	15.3%	13.9%	15.7%	15.3%
Regans	WRGN	Rural	-5.80%	22.59%	19.72%	30.1%	2.0%	15.3%	13.9%	19.9%	18.8%
Three Springs	WTSG	Rural	-5.80%	22.63%	19.78%	30.1%	2.0%	15.3%	13.9%	19.9%	18.9%
Wagerup	WWGP	Rural	-5.80%	19.05%	15.37%	30.1%	2.0%	15.3%	13.9%	15.8%	15.4%
Wagin	WWAG	Rural	-5.80%	17.21%	15.08%	30.1%	2.0%	15.3%	13.9%	15.4%	15.1%

Zone Substation	TNI	Pricing Zone	Transmission			Distribution			Bundled		
			Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)
Wundowie	WWUN	Rural	-5.80%	17.13%	15.07%	30.1%	2.0%	15.3%	13.9%	15.3%	15.1%
Yerbillon	WYER	Rural	-5.80%	16.30%	14.93%	30.1%	2.0%	15.3%	13.9%	15.1%	15.0%
Amherst	WAMT	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Arkana	WARK	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Australian Paper Mills	WAPM	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Beechboro	WBCH	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Belmont	WBEL	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Bentley	WBTY	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Bibra Lake	WBIB	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
British Petroleum	WBPM	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Canning Vale	WCVE	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Clarence Street	WCLN	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Clarkson	WCKN	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Cockburn Cement	WCCT	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Collier	WCOL	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Cottesloe	WCTE	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Edmund Street	WEDD	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Forrestfield	WFFD	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Gosnells	WGNL	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Hadfields	WHFS	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Hazelmere	WHZM	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Henley Brook	WHBK	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Herdsmen Parade	WHEP	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Joel Terrace	WJTE	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Joondalup	WJDP	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Joondanna	WJDA	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Kalamunda	WKDA	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Kambalda	WKBA	Urban	-5.80%	18.43%	16.48%	30.1%	-44.0%	10.3%	13.9%	16.1%	15.7%
Kewdale	WKDL	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Landsdale	WLDE	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Malaga	WMLG	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Mandurah	WMHA	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Manning Street	WMAG	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Mason Road	WMSR	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Meadow Springs	WMSS	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Medical Centre	WMCR	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Medina	WMED	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Midland Junction	WMJX	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Morley	WMOY	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Mullaloo	WMUL	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Mundaring Weir	WMWR	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%

Zone Substation	TNI	Pricing Zone	Transmission			Distribution			Bundled		
			Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000<kVA<7000 (c/kVA/day)	Demand Charge for kVA > 7000 (c/kVA/day)
Munday	WMDY	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Murdoch	WMUR	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Myaree	WMYR	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Nedlands	WNED	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
North Beach	WNBH	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
North Fremantle	WNFL	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
North Perth	WNPH	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
OConnor	WOCN	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Osborne Park	WOPK	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Padbury	WPBY	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Piccadilly	WPCY	Urban	-5.80%	18.25%	16.24%	30.1%	-44.0%	10.3%	13.9%	15.8%	15.5%
Riverton	WRTN	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Rivervale	WRVE	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Rockingham	WROH	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Shenton Park	WSPA	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Sth Ftle Power Station	WSFT	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Southern River	WSNR	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Tate Street	WTTS	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
University	WUNI	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Victoria Park	WVPA	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Waikiki	WWAI	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Wangara	WWGA	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Wanneroo	WWNO	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Welshpool	WWEL	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Wembley Downs	WWDN	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Willeton	WWLN	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%
Yokine	WYKE	Urban	-5.80%	19.77%	16.34%	30.1%	-44.0%	10.3%	13.9%	15.7%	15.2%

8.5 Demand Length Prices

The % changes in the following table are applicable for reference tariffs: **RT5, RT6, RT7, RT8 and RT11** and the CMD/DSOC is between 1,000 and 7,000 kVA.

Table 27

Pricing Zone	Demand-Length Charge	
	For kVA >1000 and first 10 km length % Change	For kVA >1000 and length in excess of 10 km % Change
CBD	N/A	N/A
Urban	10.3%	10.3%
Mining	10.4%	10.1%
Mixed	15.3%	15.4%
Rural	15.2%	15.4%

The % changes in the following table are applicable for reference tariffs: **RT7, RT8 and RT11** and the CMD/DSOC is at least 7,000 kVA.

Table 28

Pricing Zone	Demand-Length Charge	
	For first 10 km length % Change	For length in excess of 10 km % Change
CBD	N/A	N/A
Urban	10.3%	10.3%
Mining	10.2%	10.4%
Mixed	15.3%	15.3%
Rural	15.3%	15.3%

8.6 Metering Prices

The % changes in the following table are applicable for reference tariffs: **RT5, RT6, RT7, RT8 and RT11**.

Table 29

Metering Equipment Funding	Voltage	% Change
Western Power funded	High Voltage (6.6 kV or higher)	-41.5%
	Low voltage (415 volts or less)	-41.5%
Customer funded	High Voltage (6.6 kV or higher)	-35.6%
	Low Voltage (415 volts or less)	-35.6%

8.7 Administration Prices

The % changes in the following table are applicable for reference tariffs: **RT7 and RT8**.

Table 30

Peak Demand	% Change
>=7,000 kVA	17.6%
<7,000 kVA	17.6%

8.8 Low Voltage Prices

The % changes in the following table are applicable for reference tariff: **RT8**.

Table 31

Category	% Change
Fixed	33.5%
Demand	76.3%

8.9 Connection Prices

The % changes in the following table are applicable for reference tariff: **RT11**.

Table 32

	Connection Price % Change
Connection Price	20.6%

8.10 Transmission Use of System Prices

The % changes in the following table are applicable for reference tariff: **TRT1**.

Table 33

Substation	TNI	Use of System Price % Change
Albany	WALB	14.7%
Alcoa Pinjarra	WAPJ	14.7%
Amherst	WAMT	16.5%
Arkana	WARK	14.7%
Australian Fused Materials	WAFM	24.7%
Australian Paper Mills	WAPM	20.4%
Baandee (WC)	WBDE	14.7%
Beckenham	WBEC	14.7%
Beechboro	WBCH	18.4%
Beenup	WBNP	24.7%
Belmont	WBEL	14.7%
Bentley	WBTY	14.7%
Bibra Lake	WBIB	14.7%
Binningup Desalination Plant	WBDP	14.7%
Black Flag	WBKF	24.7%
Boddington Gold	WBOD	24.7%
Boddington (Local)	WABD	24.7%
Boddington Reynolds	WRBD	24.7%
Boulder	WBLD	17.0%
Bounty	WBNY	24.5%
Bridgetown	WBTN	24.7%
British Petroleum	WBPM	24.7%
Broken Hill Kwinana	WBHK	24.7%
Bunbury Harbour	WBUH	14.7%
Busselton	WBSN	14.7%
Byford	WBYF	24.7%
Canning Vale	WCVE	14.7%

Substation	TNI	Use of System Price % Change
Capel	WCAP	14.7%
Carrabin	WCAR	14.7%
Cataby Kerr McGee	WKMC	24.7%
Chapman	WCPN	17.6%
Clarence Street	WCLN	24.7%
Clarkson	WCKN	14.7%
Cockburn Cement	WCCT	24.7%
Cockburn Cement Ltd	WCCL	14.7%
Collie	WCOE	14.7%
Collier	WCOL	24.7%
Cook Street	WCKT	14.7%
Coolup	WCLP	24.7%
Cottesloe	WCTE	24.7%
Cunderdin	WCUN	14.7%
Darlington	WDTN	24.7%
Edgewater	WEDG	14.7%
Edmund Street	WEDD	24.7%
Eneabba	WENB	14.7%
Forrest Ave	WFRT	24.7%
Forrestfield	WFFD	24.7%
Geraldton	WGTN	24.7%
Glen Iris	WGNI	22.7%
Golden Grove	WGGV	14.7%
Gosnells	WGNL	15.0%
Hadfields	WHFS	24.7%
Hay Street	WHAY	14.7%
Hazelmere	WHZM	14.7%
Henley Brook	WHBK	24.7%
Herdsmen Parade	WHEP	14.7%
Joel Terrace	WJTE	14.7%
Joondalup	WJDP	14.7%
Kalamunda	WKDA	24.7%
Katanning	WKAT	14.7%
Kellerberrin	WKEL	14.7%
Kojonup	WKOJ	24.7%
Kondinin	WKDN	14.7%
Kwinana Alcoa	WAKW	24.7%
Kwinana Desalination Plant	WKDP	24.7%
Kwinana PWS	WKPS	
Landsdale	WLDE	16.9%
Malaga	WMLG	14.7%
Mandurah	WMHA	14.7%
Manjimup	WMJP	24.7%
Manning Street	WMAG	14.7%
Margaret River	WMRV	14.7%
Marriott Road Barrack Silicon Smelter	WBSI	14.7%
Marriott Road (Local)	WLMR	14.7%
Mason Road	WMSR	24.7%
Mason Road CSBP	WCBP	24.7%
Mason Road Hismelt	WHIS	24.7%

Substation	TNI	Use of System Price % Change
Mason Road Kerr McGee	WKMK	24.7%
Meadow Springs	WMSS	14.7%
Medical Centre	WMCR	18.7%
Medina	WMED	24.7%
Merredin 66kV	WMER	14.7%
Midland Junction	WMJX	14.7%
Milligan Street	WMIL	14.7%
Moora	WMOR	24.7%
Morley	WMOY	14.7%
Mt Barker	WMBR	14.7%
Muchea Kerr McGee	WKMM	24.7%
Muchea (Local)	WLMC	24.7%
Muja PWS	WMPS	
Mullaloo	WMUL	14.7%
Murdoch	WMUR	14.7%
Mundaring Weir	WMWR	14.7%
Myaree	WMYR	14.7%
Narrogin	WNGN	14.7%
Nedlands	WNED	24.7%
North Beach	WNBH	14.7%
North Fremantle	WNFL	24.7%
North Perth	WNPH	14.7%
Northam	WNOR	14.7%
O'Connor	WOCN	14.7%
Osborne Park	WOPK	14.7%
Padbury	WPBY	14.7%
Parkeston	WPRK	24.7%
Parklands	WPLD	14.7%
Piccadilly	WPCY	16.6%
Picton 66kv	WPIC	14.7%
Pinjarra	WPNJ	14.7%
Rangeway	WRAN	24.7%
Regans	WRGN	24.7%
Riverton	WRTN	23.4%
Rivervale	WRVE	14.7%
Rockingham	WROH	24.2%
Sawyers Valley	WSVL	14.7%
Shenton Park	WSPA	14.7%
Southern River	WSNR	24.7%
South Fremantle 22kV	WSFT	24.7%
Summer St	WSUM	14.7%
Tate Street	WTTS	24.7%
Three Springs	WTSG	24.7%
Tomlinson Street	WTLN	15.4%
University	WUNI	24.7%
Victoria Park	WVPA	24.7%
Wagerup	WWGP	14.7%
Wagin	WWAG	14.7%
Waikiki	WWAI	18.1%
Wangara	WWGA	14.7%

Substation	TNI	Use of System Price % Change
Wanneroo	WWNO	17.5%
WEB Grating	WWEB	14.7%
Wellington Street	WWNT	24.7%
Welshpool	WWEL	14.7%
Wembley Downs	WWDN	14.7%
West Kalgoorlie	WWKT	24.7%
Western Collieries	WWCL	14.7%
Western Mining	WWMG	24.7%
Westralian Sands	WWSD	14.7%
Willeton	WWLN	14.7%
Worsley	WWOR	24.7%
Wundowie	WWUN	14.7%
Yanchep	WYCP	24.7%
Yerbillon	WYER	14.7%
Yilgarn	WYLN	14.7%
Yokine	WYKE	14.7%

The % changes in the following table are applicable for reference tariffs: **RT11 and TRT2**.

Table 34

Substation	TNI	Use of System % Change
Albany Windfarm	WALB	-2.5%
Boulder	WBLD	-2.5%
Bluewaters	WBWP	-2.5%
Cockburn PWS	WCKB	-2.5%
Collgar	WCGW	7.5%
Collie PWS	WCPS	3.9%
Emu Downs	WEMD	7.5%
Geraldton GT	WGTN	-2.5%
Kemerton PWS	WKEM	-2.5%
Kwinana Alcoa	WAKW	7.5%
Kwinana Donaldson Road (Western Energy)	WKND	-2.5%
Kwinana PWS	WKPS	-2.5%
Landweir (Alinta)	WLWT	-2.5%
Mason Road	WMSR	-2.5%
Mason Road Hismelt	WHIS	-2.5%
Muja PWS	WMPS	7.5%
Mungarra GTs	WMGA	7.5%
Newgen Kwinana	WNGK	7.5%
Newgen Neerabup	WGNN	6.6%
Oakley (Alinta)	WOLY	-2.5%
Parkeston	WPKS	-2.5%
Pinjar GTs	WPJR	7.5%
Alcoa Pinjarra	WAPJ	-2.5%
Tiwest GT	WKMK	-2.5%
Wagerup Alcoa	WAWG	7.5%
Walkaway Windfarm	WWWF	5.9%
West Kalgoorlie GTs	WWKT	7.5%

Substation	TNI	Use of System % Change
Worsley	WWOR	6.2%

8.11 Common Service Prices

The % changes in the following table are applicable for reference tariff: **TRT1**.

Table 35

	Common Service Price % Change
Common Service Price	16.7%

8.12 Control System Service Prices

The % changes in the following table are applicable for reference tariff: **RT11 and TRT2**.

Table 36

	Price % Change
Control System Service Price (Generators)	-17.6%

The % changes in the following table are applicable for reference tariff: **TRT1**.

Table 37

	Price % Change
Control System Service Price (Loads)	-12.1%

8.13 Metering Prices

The % changes in the following table are applicable for reference tariffs: **TRT1 and TRT2**.

Table 38

	% Change
Transmission Metering	0%

8.14 Tariff increase moderations

The intention at the start of the third Access Arrangement period is to set all prices to their cost reflective levels after many years of flat scaled increases. Unfortunately, this method results in unrealistic outcomes for some tariffs. In order for some customers not to be unduly disadvantaged in year one, some of the tariff increases and decreases have been slightly modified.

Specifically, increases for RT4 and RT10 were slightly reduced to be more in line with the increases in other tariffs. As the increases for RT6 - RT8 were lower than average, the decision was made to slightly increase these tariffs to enable moderation of large increases in other tariffs. This approach is similar to how the side-constraints will operate during AA3.

This decision means that not all tariffs are between incremental and stand-alone costs in the first year. However, all tariffs will move to their cost reflective levels over the course of the AA3 period (with inter-year movements subject to the side constraints proposed in the Access Arrangement).

Section 7.5 of the Code allows for this requirement to be considered alongside the requirement to avoid price shock (amongst others). Western Power takes the view that in this instance and given the background of scaled increases described above; it is prudent to take the moderation described above.

Appendix A - Price Setting for New Transmission Nodes Policy

This policy applies when a new transmission node is established.

Transmission “use of system” prices for both entry and exit points are derived using the computer based analysis tool T-Price, based on historical load flow information. In the case of new sites, historical data is not available.

However, there is a need for both Western Power and the prospective user to have a fairly accurate TUOS price and connection price. Western Power requires the prices to determine future revenues from the connection, and any associated capital contribution. The user requires the price and capital contribution for the purposes of project feasibility, and their internal approval processes.

This policy addresses this issue by providing a degree of price certainty over the medium term.

Policy Statement – Transmission Use of System Price (TUOS)

This policy will apply to new connection points on the transmission and distribution system where the prospect is that it will be a single connection point.

1. Western Power will nominate a TUOS price consistent with all the principles described in this document based on the best available knowledge of the network parameters including asset values and expected load flows. This would also include necessary assumptions for maximum demand and utilisation at the new connection and also any other new or forecast connections.
2. That nominated nodal TUOS price will then be adjusted annually in line with the CMD weighted average TUOS price adjustment for all other load or generator transmission nodes (as applicable).
3. Once that connection point is established the nominated TUOS price (adjusted in accordance with step 2) will apply at the commencement of the access contract, with annual price adjustments at the start of each financial year of no greater than (plus or minus) the annual pricing side constraint as detailed in the Access Arrangement. (Thus, the nominated TUOS price will converge over time with and future price based on future T-Price runs.)
4. The TUOS price will be published once the connection point is commissioned.

5. Where another user subsequently connects to such a connection point the price that will apply will be the price applying to that connection point at the time.
6. The common service, metering and control system prices that apply in this circumstance will be the standard published prices.

Policy Statement – Transmission Connection Price

The transmission connection price, for new connections where there was no previous connection point, is determined in accordance with the principles described below. There are two categories in which the new connection point can fit.

A connection that is unlikely to be shared by other users.

In this case the connection asset would be dedicated to the single user. The asset can be constructed either by the user or by Western Power, and the user has the option to own the asset or to allow Western Power to own the asset.

Where Western Power will own the asset the capital contribution for the connection asset will be as determined by the Contributions Policy.

The annual connection price is calculated to recover to expected operations and maintenance costs for the connection asset and is currently set at 2.39% of the full capital cost. This percentage is based on the average of the ratio of the forecast Operations and Maintenance cost and the GODV of the transmission network over the Access Arrangement period. Once the annual connection price has been determined for a particular connection point, the price is adjusted annually by the all capitals consumer price index (CPI).

A connection point where there is a high likelihood that other users will connect in the future.

In this circumstance the user still retains the option of owning the connection asset. If the user prefers this option Western Power may require the ability to build connection assets for other users on the same site. Where the user does select this option the calculation of the capital contribution and the associated connection access price is on the same basis as the first option.

Where the user would prefer Western Power to own the connection asset, the connection access price would be the published price that applies to all multi-user substations within the Western Power Network. This published price would be used by Western Power to calculate the capital contribution for the connection asset.

Western Power will offer this option at its discretion depending on the likelihood of future users connecting to the connection point.