18 January 2023

Electricity Access Team Economic Regulation Authority Level 4, 469 Wellington Street, Perth WA 6000

Submitted via electronic lodgement to info@erawa.com.au

Dear Sir / Madam

Further Access Arrangement Information

Western Power appreciates the time and effort taken by stakeholders to make further submissions on our Revised Proposal and the Economic Regulation Authority's (ERA) Draft Decision; and for the consistently open dialogues with the Economic Regulation Authority to ensure this access arrangement is in the long-term interests of consumers.

In response to matters raised through these public submissions, Western Power submits the attached further access arrangement information pursuant to clause 4.16A of the Access Code.

This further access arrangement information includes additional detail on: Western Power's review of the major customer connection process; pricing structure information sought by retailers to enable them to prepare for the introduction of new network tariffs from 1 July 2023; and the most recent peak demand forecast.

Western Power notes the level of support across industry for the building out of the transmission network to support the energy transition and decarbonisation goals of the community, industry and the Government.

This is a once-in-a-generational shift in the demand for, and operation of, our network, and it will require strong levels of cooperation and coordination across the entire industry and State Government to ensure that we can meet the demand for services and integrate significantly increased volumes of renewable energy and other new technologies. To this end, Western Power has been working closely with the State Government and engaging with potential project proponents and industry experts to make sure we can support the decarbonisation of the South West Interconnected System (SWIS) in a timely, prudent and efficient manner.



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As included in our Revised Proposal (Section 5.3.2), we have already identified a need to strengthen the East Region of the Western Power Network (to maximise the utilisation of the 220kV transmission line to the Eastern Goldfields) and to undertake scoping and planning of potential network augmentations for the North Region of the Western Power Network. We agree that additional transmission expansion will be required to meet decarbonisation goals and note the SWIS demand assessment and the updated whole-of-system plan will form the foundations of the medium to longer term transmission augmentation requirements across the network.

If the ERA would like to discuss any aspect of the attached information, please contact

Yours sincerely

Sam Barbaro

Chief Executive Officer

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1. Executive Summary

Western Power provides this further access arrangement information to support our revised proposal for the fifth access arrangement period (**Revised Proposal**) spanning 1 July 2022 to 30 June 2027.

Western Power has reviewed each of the public submissions provided in response to the Economic Regulation Authority (ERA) and it is evident there is much that is agreed across industry, particularly the need to respond to the rapidly changing energy landscape.

We note there are also some areas where stakeholders are seeking more clarity on Western Power's Revised Proposal, including:

- The opportunities to streamline the current connection process for major customers to facilitate the rapidly accelerating decarbonisation pathway of stakeholders.
- Detailed pricing structure information sought by retailers to enable them to prepare for the introduction of new network tariffs from 1 July 2023.
- The most recent peak demand forecast.

Major Customer Connection Process (>1MVA)

The current major customer connection process was identified as a key focus area through the public submissions given the increasingly rapid pace of evolution in the electricity industry and the expedited plans of the State Government to decarbonise the South West Interconnected System (SWIS).

Western Power acknowledges stakeholder views and agrees that a timely process is required to adequately meet the needs of proponents. Western Power also acknowledges that the process must provide certainty and fairness for applicants, and support the security of the energy system. The current and rapid transformation of the energy grid places an enormous responsibility on the network service provider to ensure that any new connections do not jeopardise the ongoing safety, reliability, security and resilience of the network.

Western Power is committed to working with stakeholders to review the current process and we provide more granular information in Section 3.1 of this submission on our accelerated efforts currently underway to streamline the connection process for major customers greater than 1MVA.

Detailed Pricing Structure Information

Western Power notes retailers are seeking detailed pricing structure information to enable them to prepare for the introduction of new network tariffs from 1 July 2023.

The changes to the Access Code in 2020 removed the requirement on Western Power to produce price list information and replaced it with a requirement to produce a tariff structure statement, aligned with the National Electricity Rules. While Western Power supports the purpose of these changes to the Access Code, we equally acknowledge the request from retailers for more granular, structural information on our proposed network tariffs to support their efforts to adopt those tariffs.

As such, we have included the equivalent price list information for the newly proposed reference tariffs for AA5 in Section 3.2 and further detail in Appendix B of this submission, noting that it is based on the information contained in our Revised Proposal. Any changes made to the reference services or tariffs by the ERA through the Final Decision will be updated when we submit our "initial price list" for the second year of this access arrangement to the ERA within 15 business days after the handing down of the Final Decision, in accordance with section 8.1 of the Access Code.

Additional Information

The ERA has made Western Power aware of an omission in the revenue model submitted as part of the Revised Proposal, whereby the data for the 2021-22 consumer price index (CPI) was not updated to reflect actual CPI of 6.1%. This has now been addressed, along with some other minor updates to the revenue model, resulting in an increase to target revenue over the AA5 period of approximately \$0.3 billion:

	ERA Draft Decision	Western Power Revised Proposal	Western Power Revised Proposal Updated
Target revenue (circa) (nominal)	\$9 billion	\$8.9 billion	\$9.2 billion

Western Power notes the figures provided in the table above are 'point in time' estimates and are subject to the ERA's Final Decision including adjustments for other changes which may include:

- inflation forecasts;
- weighted average cost of capital inputs; and
- decisions by the ERA on Western Power's proposed expenditure program.

In terms of the impact of the updated target revenue on network tariffs, Western Power has provided:

- an updated forecast weighted average price change for each year of AA5 in Appendix C of this submission, and
- an updated Indicative Price List for FY24 in Appendix D of this submission.

The overall change in all tariffs comparing Western Power's Revised Proposal target revenue and the updated target revenue is provided below:

Western Power Revised Proposal	FY23	FY24	FY25	FY26	FY27
Distribution tariffs subtotal	0.00%	1.25%	4.04%	3.58%	2.88%
Transmission tariffs subtotal	0.00%	5.29%	5.24%	5.28%	5.45%
All tariffs	0.00%	1.47%	4.11%	3.69%	3.05%
Western Power Updated Revenue					
Distribution tariffs subtotal	0.00%	3.27%	6.06%	5.49%	5.28%
Transmission tariffs subtotal	0.00%	7.42%	7.50%	7.50%	7.50%
All tariffs	0.00%	3.50%	6.14%	5.61%	5.42%

Western Power notes the setting of retail prices for residential customers is subject to a separate Western Australian State Government led process as part of the annual State Budget.

2. Background

On 15 November 2022, Western Power submitted its Revised Proposal in response to the ERA's Draft Decision published on 9 September 2022. The Revised Proposal, and the ERA's Draft Decision, are available on the ERA's website.

An indicative timetable for the review is shown in Table 1.

Table 1: Indicative timetable for the access arrangement review

Assessment stage	Indicative date
Framework & Approach Decision published by ERA	9 August 2021
Western Power submits AA5 proposal	1 February 2022
Issues paper published by ERA	4 March 2022
ERA Public forum	25 March 2022
Public consultation closes	20 April 2022
Western Power may submit further access arrangement information	19 May 2022
ERA draft decision published for consultation	9 September 2022
ERA public forum	27 September 2022
Western Power submits Revised Proposal	15 November 2022
Public consultation to the ERA closes	16 December 2022
Western Power may submit further access arrangement information	18 January 2023
ERA final decision published	31 March 2023
Western Power submits price list for 2023/24	April 2023
ERA approved price list	May 2023
Revised access arrangement commences	1 July 2023

Public consultation in relation to the Draft Decision and our Revised Proposal closed on 16 December 2022. Western Power is providing this further access arrangement information to address the common matters raised by stakeholders in the public submissions made in response to the Draft Decision and our Revised Proposal.

3. Further access arrangement information

Western Power has reviewed each of the public submissions and identified a number of common areas of interest raised by stakeholders for which we consider the provision of further access arrangement information would assist, to ensure greater clarity for stakeholders on our Revised Proposal. These common areas of interest are listed below.

- Major customer connection process the opportunity to improve the current connection process for major customers to facilitate the rapidly accelerating decarbonisation pathway of stakeholders.
- **Detailed pricing structure information** sought by retailers to enable them to prepare for the introduction of new network tariffs from 1 July 2023.
- **Peak demand forecasts** updated since our Initial Proposal in February 2022 (refer Appendix E of this submission).

3.1 Major Customer (>1MVA) Connection Process

Like many of its interstate counterparts, Western Power is facing unprecedented levels of enquiries and applications to connect to the network. In the past 12 months alone, the number of Enquiry Notifications has jumped 45%, which was 63% higher than five years ago. As per the graph below, we are predicting a further significant jump in Enquiry Notifications in the coming years as the State continues towards its decarbonisation targets.

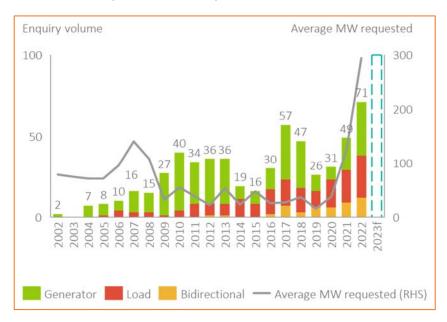


Table 1: Major connections requested over the past two decades

The increase in volumes is putting pressure on the current connection process. Many of the proponents with enquiries are self-selecting to proceed to a Detailed Enquiry Assessment to inform their decision making, prior to pursuing a connection application. Given these enquiries are often from non-synchronous generators or battery proponents, in areas of the network not traditionally designed to accommodate large bi-directional or intermittent loads, the timeframe to complete such detailed enquiries can be lengthy.

Western Power acknowledges stakeholder views and agrees that a timely process is required to adequately meet the needs of proponents. Western Power also acknowledges that the process must

provide certainty and fairness for applicants, and ensure an equitable approach to managing high volumes of applicants in the queue.

In addition to the needs of applicants, the needs of customers must also be preserved by the process. The current and rapid transformation of the energy grid places an enormous responsibility on the network service provider to ensure that any new connections do not jeopardise the ongoing safety, reliability, security and resilience of the network.

The public submissions on the Revised Proposal have in-large, acknowledged these pressures while also highlighting the frustrations being experienced across the industry with these delays. Many of the submissions have also proposed a number of timelines, often borrowed from our National Electricity Market counterparts, for projects to take to proceed through certain sections of the connection process. While we agree that comparators from other jurisdictions have some use, it is important to recognise the differences in application context (notably, constrained access and the benefits of interstate-interconnected networks). Nevertheless, Western Power accepts the proposition that a more timely process should be sought.

3.1.1 Major Customer Connection Process Optimisation Review

Western Power notes that the current connection process was developed in a different market environment, with more steady network growth. The process has been developed over several access arrangements with amendments sought by the ERA and implemented by Western Power in response to public consultation and feedback. The process that was suitable and appropriate for the previous environment, is unlikely to serve all parties as well, moving forward.

Western Power has recently conducted an external end-to-end review of the connection process. The review involved consultation with major customers, electrical consultants and industry stakeholders including Energy Policy WA and the Australian Energy Market Operator. The review identified several potential changes to the process. These changes have the potential to alleviate many of the known 'pain points' for customers and as a result, drive a range of internal efficiencies to Western Power's processes.

The review used a typical connection process duration baseline of up to four years to reach construction, noting that due to unprecedented demand, many initial enquiries are now waiting up to 33 weeks to receive the Detailed Enquiry Assessment.

A key finding of the review was that only 5% of initial enquiries proceed through the process to an Access Offer, meaning significant effort is spent assessing enquires that do not proceed, and indicating potentially significant opportunity to improve the overall process.

Through the review, Western Power has been able to identify potential improvements to the connection process, which cover changes to internal processes and proponent responsibilities. These changes, including both short- and longer-term opportunities, can be summarised into the following five broad areas:

- Enabling an online self-service enquiry system/process to minimise effort on speculative enquiries.
- Reorganising process steps to eliminate unnecessary work and reduce waiting time driven by customers; for example, streamlining our contract and estimating process, and deferring certain studies and designs until later in the process.
- Allowing some customers to progress through the process with only preliminary designs, where they accept the associated risks.

- Maximising the use of third-party resources to support design and construction, and ensure scalability; for example, allowing proponents to directly manage studies and design via accredited service providers.
- Reorganising how work is conducted to improve efficiency and effectiveness, supported by an online customer portal for increased transparency of the process.

Western Power is developing an implementation plan to deliver on these recommended initiatives and process changes, focusing on the 'quick wins' while further exploring the longer-term opportunities. The aim is to implement alternative connection pathways that could significantly reduce the time it takes to receive an Access Offer and commence construction.

3.1.2 Implementing changes to the connection process

Western Power will continue to further develop these proposed initiatives and connection process changes for major connections. The expected improvements to the process will then be trialled through a series of pilot programs and, if successful, will be made permanent through future updates to the underlying policies such as the Applications and Queuing Policy (AQP).

The ERA sought to impose stricter timeframes on Western Power through Draft Decision RA12.06 and for those timeframes to be hard-coded in the AQP as a means of driving improvements to the overall process.

As outlined above, the current process has been developed over time taking into account customer feedback and has resulted in process steps and a process order which are unlikely to be appropriate for the future accelerated energy transformation. Therefore, further hardwiring this process through hard-coded timeframes is unlikely to meet the long term needs of applicants.

Hard coding timeframes will also divert resources toward meeting those timeframes and distract applicants and Western Power from seeking to develop a better fit-for-purpose approach. Western Power intends to trial changes to the process and steps, to determine whether there is a better way to serve and progress applicants through the process.

As such, our Revised Proposal in response to Draft Decision RA12.06 proposed an alternative option to publish timeframes for the connection process, on a best endeavours basis on the Western Power website. This will provide the flexibility needed to go through this review process and confirm the right staging of the process and the realistic timeframes for each stage. While this will be refined prior to formal implementation by 1 July 2023, an example of how this might look is appended to this document at Appendix A.

At this stage of the review process, the timelines to be published will reflect the current timeframes facing proponents. Over time, as these reforms are implemented and benefits realised, those timeframes will be updated, along with any process improvements across the stages of the connection process, as discussed above.

3.1.3 Prioritising certain projects

Another common piece of feedback both through the review and the public submissions to our Revised Proposal, was to consider prioritising projects of: State significance; strategic importance to the electricity market; or "shovel ready" projects with no constraints in terms of funding, land arrangements; or that have an agreed power purchase agreement in place. Western Power agrees that with the pace of change in the energy market, the interests of the industry and our customers may no longer be best served by the protections built into the AQP overtime relating to preserving an applicant's place in the queue and the 'first in, first served' principle.

While clause 5.9(a)(i) of the Access Code allows for a departure of the 'first in, first served' principle of the AQP, provided such departures are "necessary to achieve the Code objective", this clause will not enable the prioritisation of such projects in all cases.

Further, departing from the 'first in, first served' principle is unlikely to be sufficient to address the concerns raised in the public submissions and the expected bow-wave of projects resulting from the now rapid pace of energy transition and decarbonisation of the SWIS.

Western Power commits to working with the Government to investigate these matters as a priority, whilst also progressing with its own connection process improvements, and investigating opportunities for quick wins and expedited implementation of any relevant reforms necessary to support the industry.

3.2 Detailed pricing structure information

In submissions on our Revised Proposal, stakeholders have indicated the information contained in the Tariff Structure Statement documentation does not provide a sufficient level of detail to enable the translation of the tariff structures into the component parts required for retail billing systems. Stakeholders have requested Western Power publish the equivalent of its annual Price List Information inclusive of the newly proposed tariff structures being introduced as part of AA5.

To date, Western Power has not included this information as part of its Revised Proposal, in part due to the tariff structures for many of the new services having yet to be settled as a result of revisions to address stakeholder concerns during the consultation process. However, in response to the public submission feedback, we include at Appendix B of this submission the proposed tariff structures and pricing mechanisms for the new tariffs being introduced as part of AA5. The reference tariffs included at Appendix B are:

- Reference tariff 34 (RT34) Super Off-peak Time of Use Energy (Business) Exit and Bidirectional services.
- Reference tariff 35 (RT35) Super Off-peak Time of Use Energy (Residential) Exit and Bidirectional services.
- Reference tariff 36 (RT36) Super Off-peak Time of Use Demand (Business) Exit and Bidirectional services.
- Reference tariff 37 (RT37) Super Off-peak Time of Use Demand (Residential) Exit and Bidirectional services.
- Transmission Reference Tariff 3 (TRT3) Transmission Storage Bidirectional service.
- Reference Tariff 38 (RT38) Low Voltage Distribution Storage Bidirectional service.
- Reference Tariff 39 (RT39) High Voltage Distribution Storage Bidirectional service.
- Reference Tariff 40 (RT40) Low Voltage Electric Vehicle Charging Exit and Bidirectional services.
- Reference Tariff 41 (RT41) High Voltage Electric Vehicle Charging Exit and Bidirectional services.

Western Power advises that the information contained in Appendix B is based on the tariff structures outlined in the Tariff Structure Statement documentation that formed part of our Revised Proposal. However, the amendments proposed for RT40 and RT41 to change the applicable reference service from a contracted maximum demand service to a bidirectional service should also be noted. This change reflects Western Power's view that users would already be able to access a metered demand

(RT5 and RT6) and/or contracted maximum demand (RT7 and RT8) reference service without the need to try and include these services as part of RT40 and RT41.

Western Power also notes the tariff structures are subject to change as part of the ERA's Final Decision in March 2023.

Any subsequent changes to the tariff structures outlined above made by the ERA in its Final Decision will be reflected in Western Power's 'initial price list' and 'price list information' which will be submitted within 15 business days of the ERA's final decision in accordance with section 8.1(a) of the *Electricity Networks (Access) Code 2004*.

Appendix A – Draft Website View of Major Connections Timeline

Transmission loads and large generators

Enquire to discuss connecting a large load or generator greater than 1MVA to our network.

Products and Services | Connections | Transmission loads and large generators

The information below applies to the following types of generators and loads:

- · all transmission load connections
- · generator connections in excess of 1MVA.

Connection process

Our connection process adheres to and is underpinned by the <u>Applications</u> and Queuing Policy and consists of the following stages:

In order to establish a good understanding of your requirements we offer our customers an initial two hours of consultation time to meet and discuss your needs. This time provides an opportunity for you to ask questions whether they be technical, administrative or of a commercial nature. We will have the appropriate Western Power attendance in place when we meet. We will also provide you any insights that we feel may assist your plans. To further assist and help guide you through the process, once the Enquiry Notification is received you will be contacted by a Senior Access Consultant to arrange our first meeting. Your Senior Access Consultant will be a single point of contact through the process.



1. Enquiry

The connection process is commenced in the Enquiry stage by lodging the <u>Enquiry notification form</u>. A Detailed Enquiry Assessment will provide a first view of a potential network solution, indicative cost and high level schedule.

2. Project Initiation

The Project initiation stage requires the Connection application to be lodged and reviewed for correctness and to confirm whether the application is competing for network capacity.

3. Project Scoping

The Project Scoping stage involves identifying the solution to progress to a grid connection.

4. Project Planning

The Project Planning stage sets out development of business cases, first draft contracting framework, detailed design and estimates along with construction plans for the final solution.

5. Construction and Commissioning

The Construction and Commissioning stage involves the building of the required solution followed by commissioning of the solution.

6. Operation (Close out)

The Operation stage deems the solution build to be completed and the assets become the property of Western Power. Assets can now begin operating.

Approximate timeframes 1 2 3 4 5 6 Enquiry Project Initiation Project Scoping Project Planning Construction & Commissioning (Close out) 6 months 6 months 12 months 12 months Project dependent Within 12 months

These timeframes for the expected duration of each step excludes customer handling time and third party delays beyond Western Power's control. The length of these delays can vary from project to project and different stages of the overall process and the length of those delays is not currently captured. The timeframes also do not capture the length of any customer of project delays moving between stages of the connection process.

Appendix B – Tariff Structure Information

The following provides an overview of the tariff structures and billing arrangements for the new tariffs proposed for AA5. Where relevant, this Appendix points to the appropriate indicative pricing tables included in Appendix D of this submission.

B.1 Reference tariffs 34 and 35 (RT34 and RT35)

RT34 and 35 consist of:

- a. a fixed use of system charge (detailed in Table D.3) which is payable each day;
- an on-peak use of system variable charge calculated by multiplying the on-peak energy price (detailed in Table D.3) by the quantity of on-peak electricity consumed at the connection point (expressed in kWh);
- c. a shoulder use of system variable charge calculated by multiplying the shoulder energy price (detailed in Table D.3) by the quantity of shoulder period electricity consumed at the connection point (expressed in kWh);
- an off-peak use of system variable charge calculated by multiplying the off-peak energy price (detailed in Table D.3) by the quantity of off-peak electricity consumed at the connection point (expressed in kWh);
- e. a super off-peak use of system variable charge calculated by multiplying the super off-peak energy price (detailed in Table D.3) by the quantity of super off-peak electricity consumed at the connection point (expressed in kWh); and
- f. a fixed metering charge per revenue meter calculated in accordance with Appendix E, table E.1.2 (detailed in Table D.14 and Table D.16) which is payable each day.

Notes:

1. The on-peak, off-peak, shoulder, and super off-peak periods for these tariffs are defined in the following table (all times are WST):

Table B.1: On, shoulder, off and super off peak for RT34 and RT35

Everyday (Monday – Sunday (including public holidays))					
Off-Peak	Shoulder	Super off- peak	On-Peak	Shoulder	Off-peak
12:00am – 6:00am	6:00am – 9:00am	9:00am – 3:00pm	3:00pm – 9:00pm	9:00pm – 11:00pm	11:00pm – 12:00am

B.2 Reference tariff 36 (RT36)

RT36 consist of:

- a. a fixed use of system charge (detailed in Table D.3) which is payable each day;
- a demand based charge calculated by multiplying the demand charge (detailed in Table D.3)
 by the maximum demand in a 30 minute period within the on-peak period defined below at the connection point (expressed in kVA) measured over a billing period which is payable each day;

- an on-peak use of system variable charge calculated by multiplying the on-peak energy price (detailed in Table D.3) by the quantity of on-peak electricity consumed at the connection point (expressed in kWh);
- d. a shoulder use of system variable charge calculated by multiplying the shoulder energy price (detailed in Table D.3) by the quantity of shoulder period electricity consumed at the connection point (expressed in kWh);
- e. an off-peak use of system variable charge calculated by multiplying the off-peak energy price (detailed in Table D.3) by the quantity of off-peak electricity consumed at the connection point (expressed in kWh);
- f. a super off-peak use of system variable charge calculated by multiplying the super off-peak energy price (detailed in Table D.3) by the quantity of super off-peak electricity consumed at the connection point (expressed in kWh); and
- g. a fixed metering charge per revenue meter calculated in accordance with Appendix E, table E.1.2 (detailed in Table D.14 and Table D.16) which is payable each day.

1. The on-peak, off-peak, shoulder, and super off-peak periods for these tariffs are defined in the following table (all times are WST):

Table B.2: On, shoulder, off and super off peak for RT36

Everyday (Monday – Sunday (including public holidays))					
Off-Peak	Shoulder	Super off- peak	On-Peak	Shoulder	Off-peak
12:00am – 6:00am	6:00am – 9:00am	9:00am – 3:00pm	3:00pm – 9:00pm	9:00pm – 11:00pm	11:00pm – 12:00am

B.3 Reference tariff 37 (RT37)

RT37 consist of:

- a. a fixed use of system charge (detailed in Table D.3) which is payable each day;
- a demand based charge calculated by multiplying the demand charge (detailed in Table D.3)
 by the maximum demand in a 30 minute period within the on-peak period defined below at the connection point (expressed in kW) measured over a billing period which is payable each day;
- an on-peak use of system variable charge calculated by multiplying the on-peak energy price (detailed in Table D.3) by the quantity of on-peak electricity consumed at the connection point (expressed in kWh);
- d. a shoulder use of system variable charge calculated by multiplying the shoulder energy price (detailed in Table D.3) by the quantity of shoulder period electricity consumed at the connection point (expressed in kWh);
- e. an off-peak use of system variable charge calculated by multiplying the off-peak energy price (detailed in Table D.3) by the quantity of off-peak electricity consumed at the connection point (expressed in kWh);

- f. a super off-peak use of system variable charge calculated by multiplying the super off-peak energy price (detailed in Table D.3) by the quantity of super off-peak electricity consumed at the connection point (expressed in kWh); and
- g. a fixed metering charge per revenue meter calculated in accordance with Appendix E, table E.1.2 (detailed in Table D.14 and Table D.15) which is payable each day.

1. The on-peak, off-peak, shoulder, and super off-peak periods for these tariffs are defined in the following table (all times are WST):

Table B.3: On, shoulder, off and super off peak for RT37

Everyday (Monday – Sunday (including public holidays))					
Off-Peak	Shoulder	Super off- peak	On-Peak	Shoulder	Off-peak
12:00am – 6:00am	6:00am – 9:00am	9:00am – 3:00pm	3:00pm – 9:00pm	9:00pm – 11:00pm	11:00pm – 12:00am

B.4 Transmission reference tariff 3 (TRT3 – Transmission connected storage)

TRT3 consists of:

- 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;
- a variable use of system charge calculated by multiplying the applicable use of system price (detailed in Table D.22) or where there is no applicable use of system price in Table D.22 for the entry point, the price calculated by Western Power in accordance with Appendix A of the AA4 Price List Information 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 D.24) 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 D.14) which is payable each day; and
- e. excess network usage charges calculated in accordance with section B.4.1 (if applicable).

B.4.1 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:

Where

ENUM	is the Excess network usage multiplier factor, which is defined in Table;
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; and
CSS	is the applicable variable control system service charge for the billing period.

- 1. The ENUC does not include the metering components of the tariff.
- If the connection point is subject to the Capacity (Swap) Allocation (Business) Entry Service (D2), for the purposes of the ENUC calculation above the CMD is the total contracted capacity allocated to the connection point from time to time pursuant to the capacity allocation arrangement.

B.5 Reference tariffs RT38 and RT39 (RT38 and RT39 – distribution connected storage)

B.5.1 Tariff calculation

RT38 and RT39 consists of:

- a. a fixed use of system charge that reflects the costs of providing connection assets (detailed in Table D.5) which is payable each day;
- b. for nett consumption from the Western Power network:
 - i. an on-peak use of system variable charge calculated by multiplying the on-peak energy price (detailed in Table D.4) by the quantity of on-peak electricity consumed at the connection point (expressed in kWh);
 - ii. a shoulder use of system variable charge calculated by multiplying the shoulder energy price (detailed in Table D.4) by the quantity of shoulder period electricity consumed at the connection point (expressed in kWh);
 - iii. an off-peak use of system variable charge calculated by multiplying the off-peak energy price (detailed in Table D.4) by the quantity of off-peak electricity consumed at the connection point (expressed in kWh);
 - iv. a super off-peak use of system variable charge calculated by multiplying the super off-peak energy price (detailed in Table D.4) by the quantity of super off-peak electricity consumed at the connection point (expressed in kWh);
- c. for nett exports to the Western Power network:
 - i. an on-peak use of system variable charge calculated by multiplying the on-peak energy price (detailed in Table D.4) by the quantity of on-peak electricity exported at the connection point (expressed in kWh);

- ii. a shoulder use of system variable charge calculated by multiplying the shoulder energy price (detailed in Table D.4) by the quantity of shoulder period electricity exported at the connection point (expressed in kWh);
- iii. an off-peak use of system variable charge calculated by multiplying the off-peak energy price (detailed in Table D.4) by the quantity of off-peak electricity exported at the connection point (expressed in kWh);
- iv. a stepped super off-peak use of system variable charge calculated by multiplying:
 - A. the first 3kWh of super off-peak electricity exported (expressed in kWh) at the connection point by the super off-peak energy price (detailed in Table D.4) measured over a billing period which is payable each day; and
 - B. the quantity of super off-peak electricity in excess of 3kWh exported (expressed in kWh) at the connection point by the super off-peak energy price (detailed in Table D.4) measured over a billing period which is payable each day.
- d. a fixed metering charge per revenue meter calculated in accordance with Appendix E, table E.1.2 (detailed in Table D.14 and Table D.15) which is payable each day.

1. The on-peak, off-peak, shoulder, and super off-peak periods for these tariffs are defined in the following table (all times are WST):

Table B.4: On, shoulder, off and super off peak for RT38 and RT39

Everyday (Monday – Sunday (including public holidays))					
Off-Peak	Shoulder	Super off- peak	On-Peak	Shoulder	Off-peak
12:00am – 6:00am	6:00am – 9:00am	9:00am – 3:00pm	3:00pm – 9:00pm	9:00pm – 11:00pm	11:00pm – 12:00am

B.6 Reference tariffs 40 and 41 (RT40 and RT41 – Electric Vehicle charging service)

B.6.1 Tariff calculation for reference services RT40 and RT41

RT40 and RT41 consists of:

- a. a fixed use of system charge that reflects the costs of providing connection assets (detailed in Table D.6) which is payable each day;
- an on-peak use of system variable charge that varies with network utilisation defined below which is calculated by multiplying the on-peak energy price relevant to the network utilisation percentage band (detailed in Table D.6) by the quantity of on-peak electricity consumed at the connection point (expressed in kWh);
- c. an off-peak use of system variable charge that varies with network utilisation defined below which is calculated by multiplying the off-peak energy price relevant to the network utilisation percentage band (detailed in Table D.6) by the quantity of off-peak electricity consumed at the connection point (expressed in kWh);

- d. a demand based charge that varies with network utilisation defined below calculated by multiplying the demand charge relevant to the network utilisation percentage band (detailed in Table D.6) by the maximum demand in a 30 minute period within the on-peak period defined below at the connection point (expressed in kVA) measured over a billing period which is payable each day;
- e. a fixed metering charge per revenue meter calculated in accordance with Appendix E, table E.1.2 (detailed in Table D.14 and Table D.16) which is payable each day.

1. The on-peak and off-peak periods for these tariffs are defined in the following table (all times are WST):

Table B.5: On, shoulder, off and super off peak for RT38 and RT39

Everyday (Monday – Sunday (including public holidays))				
On-peak	Off-peak			
3:00pm – 9:00pm	All other times			

B.6.2 Calculation of network utilisation

Western Power has designed a measure of network utilisation to provide strong support to EV charging stations during this access arrangement. The calculation of network utilisation:

- excludes the twelve 30-minute intervals between 9am and 3pm (aligning with the super offpeak period in other tariffs); and
- excludes any 30-minute interval where demand is less than 10kW.

The formula for calculation of the network utilisation for this tariff is:

30 minute intervals with demand above 10kW outside of 9am to 3pm total number of 30 minute intervals in a billing period

The resultant percentage from the above calculation is used to assign the site to the relevant network utilisation percentage band as set out below that will set out the network charges applicable to the site.

B.6.3 Defining the network utilisation percentage bands

For the purposes of this tariff, Western Power has defined three network utilisation percentage bands that set out the applicable use of system variable charges and demand based charge that will apply to the connection point as defined in the following table:

Network utilisation percentage bands				
1	0% - 15%			
2	15% - 25%			
3	Greater than 25%			

Appendix C - Updated forecast weighted average price change for each year of AA5

C.1 Overall AA5 weighted average price change

In its revenue model submitted along with its Revised Proposal, Western Power has updated the 2021-22 consumer price index (CPI) to reflect the actual CPI of 6.1%, along with some other minor updates to the revenue model, resulting in an increase to target revenue over the AA5 period of approximately \$0.3 billion:

	ERA Draft Decision	Western Power Revised Proposal	Western Power Revised Proposal Updated
Target revenue (circa)	\$9 billion	\$8.9 billion	\$9.2 billion

Western Power notes the figures provided in the table above are point in time estimates and will change again in the ERA's Final Decision after the ERA adjusts for any changes, which may include:

- inflation forecasts;
- weighted average cost of capital inputs; and
- decisions on Western Power's proposed expenditure program.

The overall change in all tariffs comparing Western Power's revised proposal target revenue and the updated target revenue is provided below:

Western Power Revised Proposal	FY23	FY24	FY25	FY26	FY27
Distribution tariffs subtotal	0.00%	1.25%	4.04%	3.58%	2.88%
Transmission tariffs subtotal	0.00%	5.29%	5.24%	5.28%	5.45%
All tariffs	0.00%	1.47%	4.11%	3.69%	3.05%
Western Power Updated Revenue					
Distribution tariffs subtotal	0.00%	3.27%	6.06%	5.49%	5.28%
Transmission tariffs subtotal	0.00%	7.42%	7.50%	7.50%	7.50%
All tariffs	0.00%	3.50%	6.14%	5.61%	5.42%

C.2 Weighted average reference tariff change forecast

The following Table C.1 sets out the reference tariff change forecast for each reference tariff based on the revised target revenue set out above. It provides an indicative snapshot of Western Power's forecast of the weighted average annual price change for each reference tariff for each pricing year of AA5.

Table C.1: Weighted average reference tariff change forecast for each year of AA5

Tariff	Service	Average price change 22/23 %	Average price change 23/24 %	Average price change 24/25 %	Average price change 25/26 %	Average price change 26/27 %
RT1	A1 – Anytime Energy (Residential) Exit Service	0%	0.8%	3.8%	1.8%	1.5%
RT2	A2 – Anytime Energy (Business) Exit Service	0%	1.7%	3.6%	3.5%	3.3%
RT3	A3 – Time of Use Energy (Residential) Exit Service	0%	7.9%	8.3%	8.3%	8.3%
RT4	A4 – Time of Use Energy (Business) Exit Service	0%	7.6%	8.2%	8.2%	8.7%
RT5	A5 – High Voltage Metered Demand Exit Service or C5 Bi-directional Service	0%	2.0%	5.6%	5.1%	3.5%
RT6	A6 – Low Voltage Metered Demand Exit Service or Bi- directional Service	0%	1.9%	5.7%	4.4%	1.6%
RT7	A7 – High Voltage Contract Maximum Demand Exit Service or C7 Bi-directional Service	0%	1.8%	5.5%	5.6%	3.7%
RT8	A8 – Low Voltage Contract Maximum Demand Exit Service or Bi-directional Service	0%	2.0%	6.0%	6.0%	3.1%
RT9	A9 – Streetlighting Exit Service	0%	0.0%	1.5%	1.5%	1.5%
RT10	A10 – Unmetered Supplies Exit Service	0%	4.0%	5.0%	5.0%	5.0%
RT11	B1 – Distribution Entry Service	0%	8.0%	6.4%	3.6%	1.6%
RT13	C1 – Anytime Energy (Residential) Bi-directional Service	0%	0.7%	3.6%	1.7%	1.3%

		Average	Average	Average	Average	Average
Tariff	Service	price change 22/23	price change 23/24	price change 24/25	price change 25/26	price change 26/27
		%	%	%	%	%
RT14	C2 – Anytime Energy (Business) Bi-directional Service	0%	0.4%	2.1%	2.7%	2.0%
RT15	C3 – Time of Use (Residential) Bi-directional Service	0%	7.3%	8.3%	8.3%	8.3%
RT16	C4 – Time of Use (Business) Bi-directional Service RT16	0%	7.8%	8.2%	8.2%	8.8%
RT17	A12 – 3 Part Time of Use Energy (Residential) Exit Service or C9 Bi-directional Service	0%	5.5%	8.5%	8.5%	8.4%
RT18	A13 – 3 Part Time of Use Energy (Business) Exit Service or C10 Bi- directional Service	0%	8.0%	8.2%	8.2%	8.9%
RT19	A14 – 3 Part Time of Use Demand (Residential) Exit Service or C11 Bi- directional Service	0%	1.3%	8.2%	8.2%	8.2%
RT20	A15 – 3 Part Time of Use Demand (Business) Exit Service or C12 Bi- directional Service	0%	2.8%	8.1%	8.1%	8.9%
RT21	A16 – Multi Part Time of Use Energy (Residential) Exit Service or C13 Bi- directional Service	0%	7.8%	8.5%	8.5%	8.4%
RT22	A17 – Multi Part Time of Use Energy (Business) Exit Service C14 or Bi- directional Service	0%	6.5%	8.2%	8.2%	8.8%
RT34	A19 – Super Off-peak Energy (Business) Exit Service or – C17 Bidirectional service	0%	0.0%	4.9%	3.7%	4.3%
RT35	A18 – Super Off-peak Energy (Residential) Exit Service or C16 – Bidirectional Service	0%	0.0%	5.2%	3.3%	3.4%
RT36	A21 – Super Off-peak Demand (Business) Exit Service or C19 – Bidirectional Service	0%	0.0%	3.8%	2.9%	3.3%

Tariff	Service	Average price change 22/23 %	Average price change 23/24 %	Average price change 24/25 %	Average price change 25/26 %	Average price change 26/27 %
RT37	A20 – Super Off-peak Demand (Residential) Exit Service or C18 – Bidirectional Service	0%	0.0%	4.6%	3.2%	3.4%
RT38	C23 – LV Distribution Storage Bidirectional Service	0%	0.0%	5.5%	5.5%	5.5%
RT39	C24 – LV Distribution Storage Bidirectional Service	0%	0.0%	6.0%	5.5%	5.5%
RT40	A22 – LV EV Charging Exit Service	0%	0.0%	6.0%	5.5%	5.5%
RT41	A23 – HV EV Charging Exit Service	0%	0.0%	6.0%	5.5%	5.5%
TRT1	A11 - Transmission Exit Service	0%	7.50%	7.50%	7.50%	7.50%
TRT2	B2 - Transmission Entry Service	0%	7.50%	7.50%	7.50%	7.50%
TRT3	C22 - Transmission Storage Service	0%	0.0%	7.50%	7.50%	7.50%

Appendix D - Updated indicative price list for FY24

The indicative prices included below have been developed based on the assumptions and inputs noted in Section 1.2.2 of Attachment 11.1 to Western Power's Revised Proposal and the revised target revenue as provided in this Additional Information.

All prices quoted in this indicative price list are **GST exclusive**.

D.1 Prices for energy-based tariffs on the distribution network

D.1.1 Use of system prices

Table D.1: Reference tariffs prices for RT1, RT2, RT3, RT4, RT9, RT10, RT13, RT14, RT15, RT16, RT17 and RT18

	Fixed Price		Energy	Rates	
Bundled tariff	c/day	Anytime c/kWh	On-Peak c/kWh	Shoulder c/kWh	Off-peak c/kWh
Reference tariff 1 - RT1	94.225	8.790			
Reference tariff 2 - RT2	177.722	11.831			
Reference tariff 3 - RT3	94.225		17.184		3.707
Reference tariff 4 - RT4	325.355		18.364		4.248
Reference tariff 9 – RT9	7.482	5.046			
Reference tariff 10 – RT10	60.033	4.848			
Reference tariff 13 - RT13	94.225	8.790			
Reference tariff 14 - RT14	177.722	11.831			
Reference tariff 15 - RT15	94.225		17.184		3.775
Reference tariff 16 - RT16	325.355		18.364		4.248
Reference tariff 17 - RT17	94.225		11.765	8.000	5.762
Reference tariff 18 - RT18	177.722		17.816	12.719	9.017

Table D.2: Reference tariffs for RT19 and RT20

	Fixed Price	Demand		Energy Rates	
Bundled tariff	c/day	c/kW or kVA/day	On-Peak c/kWh	Shoulder c/kWh	Off-Peak c/kWh
Reference tariff 19 – RT19	94.225	5.699	10.154	7.052	4.781
Reference tariff 20 - RT20	223.104	6.804	16.860	11.033	7.999

Table D.3: Reference tariffs for RT21, RT22, RT34, RT35, RT36 and RT37

	Fixed Price	Demand			Energy R	ates	
Bundled tariff	c/day	c/kW or KVA/day	On- Peak c/kWh	Shoulder c/kWh	Off- Peak c/kWh	Overnight c/kWh	Super Off-Peak c/kWh
Reference tariff 21 – RT21	94.225		11.721	7.813	5.519	5.519	
Reference tariff 22 – RT22	177.722		18.465	11.760	8.197	8.197	8.197
Reference tariff 34 – RT34	177.722		19.050	9.520	7.330		5.000
Reference tariff 35 – RT35	94.225		15.295	7.647	5.883		0.100
Reference tariff 36 – RT36	325.355	6.804	17.220	8.610	6.620		5.000
Reference tariff 37 – RT37	94.225	5.699	11.348	5.674	4.365		0.100

Table D.4: Reference tariffs for RT38 and RT39

	Fixed Price	Energy	/ Rates (netwo	rk to stora	ge - chargi	ng)	
Bundled tariff	c/day	Off-Peak c/kWh	Shoulder c/kWh		off-Peak Wh	On-Peak c/kWh	
		0.100	10.328	0.1	.00	20.656	
	.,	Energy I	Rates (storage	to networ	k – dischar	ging)	
Reference tariff 38 – RT38	Varies with capacity see Table D.5 below	Off-Peak c/kWh	Shoulder c/kWh	Super Off-peak 0-3 kWh c/kWh	Super Off-Peak > 3 kWh c/kWh	On-Peak c/kWh	
		0.100	0.100	10.328	20.656	0.100	
Fixed Price		Energy Rates (network to storage - charging)					
	rixeu Price	Energy	, Rates (netwo	rk to stora	ge - chargi	ng)	
Bundled tariff	c/day	Off-Peak c/kWh	Shoulder c/kWh	Super C	ge - chargi Off-Peak Wh	ng) On-Peak c/kWh	
Bundled tariff		Off-Peak	Shoulder	Super C	Off-Peak Wh	On-Peak	
Bundled tariff	c/day	Off-Peak c/kWh 0.100	Shoulder c/kWh	Super C c/k	Off-Peak Wh	On-Peak c/kWh 20.656	
Bundled tariff Reference tariff 39 – RT39		Off-Peak c/kWh 0.100	Shoulder c/kWh 10.328	Super C c/k	Off-Peak Wh .00 k - dischar	On-Peak c/kWh 20.656	

Table D.5: Fixed Price for Reference tariffs for RT38 and RT39

Capacity of storage works kVA	Fixed Price c/day
0 - 100	350.000
100 – 1,000	700.000
1,000 – 3,000	1,500.000

Table D.6: Reference tariffs for RT40 and RT41

	Utilisation	Fixed Price		Energy Rates	
Bundled tariff	%	c/day	Off-Peak c/kWh	On-Peak c/kWh	Demand On- peak c/kVA/day
Reference tariff 40 – RT40	0 – 15	350.000	6.000	16.000	0.000
	15 – 25	350.000	3.000	8.000	15.000
	>25	350.000	1.500	4.000	30.000
Reference tariff 41 – RT41	0 – 15	350.000	6.000	16.000	0.000
	15 – 25	350.000	3.000	8.000	15.000
	>25	350.000	1.500	4.000	30.000

D.1.2 Streetlight asset prices

The prices in the following tables are applicable for reference tariff RT9.

Western Power is in the process of updating its list of streetlighting assets and will provide the updated list to the ERA as part of the access arrangement process.

Table D.7: Current light types

Light specification	Daily charge (No contribution) c/day	Daily charge (Full upfront contribution) c/day
42W CFL SE	31.870	
42W CFL BH	33.870	
42W CFL KN	38.168	
70W MH	55.711	
70W HPS	27.400	
125W MV	33.165	

Light specification	Daily charge (No contribution) c/day	Daily charge (Full upfront contribution) c/day
150W MH	64.364	
150W HPS	36.043	
250W MH	64.364	
250W HPS	36.043	
Standard LED 20W	16.939	8.78
Standard LED 16W - 3000K	16.939	8.78
Standard LED 16W - 4000K	16.939	8.78
Standard LED 36W	16.939	8.78
Standard LED 28W - 3000K	16.939	8.78
Standard LED 27W - 4000K	16.939	8.78
Standard LED 53W	17.075	8.78
Standard LED 43W - 3000K	17.075	8.78
Standard LED 42W - 4000K	17.075	8.78
Standard LED 80W	16.911	8.78
Standard LED 70W - 3000K	16.911	8.78
Standard LED 68W - 4000K	16.911	8.78
Standard LED 160W	18.553	8.78
Standard LED 140W - 3000K	18.553	8.78
Standard LED 135W - 4000K	18.553	8.78
Standard LED 170W	18.553	8.78
Standard LED 165W - 3000K	18.553	8.78
Standard LED 155W - 4000K	18.553	8.78
Decorative BH LED 17W	31.531	8.78
Decorative KN LED 17W	34.571	8.78
Decorative LED 34W	34.489	8.78
Decorative LED 42W	31.531	8.78
Decorative LED 80W	36.214	8.78
Decorative LED 100W	40.676	8.78
Decorative LED 155W	40.676	8.78

Table D.8: Obsolete light types

Light specification	Daily charge c/day
50W MV	20.397
70W MV	27.454
80W MV	27.454
150W MV	34.132
250W MV	44.524
400W MV	46.748
40W FLU	20.397
80W HPS	28.199
125W HPS	37.095
100W INC	20.397
80W MH	27.454
125W MH	66.243
22W LED	16.939

D.2 Prices for demand-based tariffs on the distribution network (RT5 to RT8 and RT112)

D.2.1 Demand charges

The prices in the following table are applicable for reference tariff **RT5**.

Table D.9: Prices for reference tariff RT5

	Bundled tariff			
Demand (kVA) (Lower to upper threshold)	Fixed c/day	Demand (in excess of lower threshold) c/kVA/day		
0 to 300	189.153	94.989		
300 to 1,000	28,496.639	69.003		
1,000 to 1,500	76,798.981	33.066		

The prices in the following table are applicable for reference tariff RT6.

 $^{^{\}rm 2}$ Note that some components of RT11 are in section D.3.

Table D.10: Prices for reference tariff RT6

	Bundled tariff			
Demand (kVA) (Lower to upper threshold)	Fixed c/day	Demand (in excess of lower threshold) c/kVA/day		
0 to 300	1,091.558	98.959		
300 to 1,000	29,687.580	76.243		
1,000 to 1,500	83,057.563	39.769		

The prices in the following table are applicable for reference tariffs **RT7** and **RT8**.

Table D.11: Prices for reference tariffs RT7 and RT8

				Bundled	
Zone substation	TNI	Pricing zone	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000 <kva<7000 (c/kVA/day)</kva<7000 	Demand Charge for kVA > 7000 (c/kVA/day)
Cook Street	WCKT	CBD	54,634.687	30.995	34.372
Forrest Avenue	WFRT	CBD	54,634.687	30.995	34.372
Hay Street	WHAY	CBD	54,634.687	30.995	34.372
Milligan Street	WMIL	CBD	54,634.687	30.995	34.372
Wellington Street	WWNT	CBD	54,634.687	30.995	34.372
Black Flag	WBKF	Mining	54,634.687	46.121	47.337
Boulder	WBLD	Mining	54,634.687	42.988	44.652
Bounty	WBNY	Mining	54,634.687	76.962	73.773
West Kalgoorlie	WWKT	Mining	54,634.687	38.967	41.205
Albany	WALB	Mixed	54,634.687	51.395	51.858
Boddington	WBOD	Mixed	54,634.687	31.303	34.636
Bunbury Harbour	WBUH	Mixed	54,634.687	30.883	34.276
Busselton	WBSN	Mixed	54,634.687	39.321	41.509
Byford	WBYF	Mixed	54,634.687	32.282	35.476
Capel	WCAP	Mixed	54,634.687	36.299	38.918
Chapman	WCPN	Mixed	54,634.687	44.363	45.831
Darlington	WDTN	Mixed	54,634.687	34.640	37.496

				Bundled	
Zone substation	TNI	Pricing zone	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000 <kva<7000 (c/kVA/day)</kva<7000 	Demand Charge for kVA > 7000 (c/kVA/day)
Durlacher Street	WDUR	Mixed	54,634.687	41.238	43.152
Eneabba	WENB	Mixed	54,634.687	34.457	37.339
Geraldton	WGTN	Mixed	54,634.687	41.238	43.152
Marriott Road	WMRR	Mixed	54,634.687	30.242	33.726
Muchea	WMUC	Mixed	54,634.687	34.457	37.339
Northam	WNOR	Mixed	54,634.687	42.263	44.030
Picton	WPIC	Mixed	54,634.687	32.381	35.560
Rangeway	WRAN	Mixed	54,634.687	43.154	44.794
Sawyers Valley	WSVY	Mixed	54,634.687	39.723	41.854
Yanchep	WYCP	Mixed	54,634.687	34.403	37.293
Yilgarn	WYLN	Mixed	54,634.687	48.807	49.639
Baandee	WBDE	Rural	54,634.687	45.871	47.123
Beenup	WBNP	Rural	54,634.687	48.980	49.788
Bridgetown	WBTN	Rural	54,634.687	31.648	34.932
Carrabin	WCAR	Rural	54,634.687	49.938	50.609
Cataby	WCTB	Rural	54,634.687	32.575	35.727
Collie	WCOE	Rural	54,634.687	36.587	39.165
Coolup	WCLP	Rural	54,634.687	40.643	42.642
Cunderdin	WCUN	Rural	54,634.687	42.591	44.312
Katanning	WKAT	Rural	54,634.687	39.265	41.461
Kellerberrin	WKEL	Rural	54,634.687	44.787	46.194
Kojonup	WKOJ	Rural	54,634.687	28.640	32.353
Kondinin	WKDN	Rural	54,634.687	30.493	33.942
Manjimup	WMJP	Rural	54,634.687	31.432	34.746
Margaret River	WMRV	Rural	54,634.687	39.389	41.567
Merredin	WMER	Rural	54,634.687	41.048	42.989

				Bundled	
Zone substation	TNI	Pricing zone	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000 <kva<7000 (c/kVA/day)</kva<7000 	Demand Charge for kVA > 7000 (c/kVA/day)
Moora	WMOR	Rural	54,634.687	31.715	34.989
Mount Barker	WMBR	Rural	54,634.687	40.941	42.897
Narrogin	WNGN	Rural	54,634.687	45.604	46.895
Pinjarra	WPNJ	Rural	54,634.687	23.886	28.278
Regans	WRGN	Rural	54,634.687	32.575	35.727
Three Springs	WTSG	Rural	54,634.687	31.633	34.919
Wagerup	WWGP	Rural	54,634.687	22.975	27.498
Wagin	WWAG	Rural	54,634.687	39.752	41.878
Wundowie	WWUN	Rural	54,634.687	35.300	38.062
Yerbillon	WYER	Rural	54,634.687	48.771	49.609
Amherst	WAMT	Urban	54,634.687	23.028	27.543
Arkana	WARK	Urban	54,634.687	23.028	27.543
Australian Paper Mills	WAPM	Urban	54,634.687	23.028	27.543
Balcatta	WBCT	Urban	54,634.687	23.028	27.543
Beechboro	WBCH	Urban	54,634.687	23.028	27.543
Belmont	WBEL	Urban	54,634.687	23.028	27.543
Bentley	WBTY	Urban	54,634.687	23.028	27.543
Bibra Lake	WBIB	Urban	54,634.687	23.028	27.543
British Petroleum	WBPM	Urban	54,634.687	23.028	27.543
Canning Vale	WCVE	Urban	54,634.687	23.028	27.543
Clarence Street	WCLN	Urban	54,634.687	23.028	27.543
Clarkson	WCKN	Urban	54,634.687	23.028	27.543
Cockburn Cement	WCCT	Urban	54,634.687	23.028	27.543
Collier	WCOL	Urban	54,634.687	23.028	27.543
Cottesloe	WCTE	Urban	54,634.687	23.028	27.543
Edmund Street	WEDD	Urban	54,634.687	23.028	27.543

				Bundled	
Zone substation	TNI	Pricing zone	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000 <kva<7000 (c/kVA/day)</kva<7000 	Demand Charge for kVA > 7000 (c/kVA/day)
Forrestfield	WFFD	Urban	54,634.687	23.028	27.543
Gosnells	WGNL	Urban	54,634.687	23.028	27.543
Hadfields	WHFS	Urban	54,634.687	23.028	27.543
Hazelmere	WHZM	Urban	54,634.687	23.028	27.543
Henley Brook	WHBK	Urban	54,634.687	23.028	27.543
Herdsman Parade	WHEP	Urban	54,634.687	23.028	27.543
Joel Terrace	WJTE	Urban	54,634.687	23.028	27.543
Joondalup	WJDP	Urban	54,634.687	23.028	27.543
Kalamunda	WKDA	Urban	54,634.687	23.028	27.543
Kambalda	WKBA	Urban	54,634.687	39.321	41.509
Kewdale	WKDL	Urban	54,634.687	23.028	27.543
Landsdale	WLDE	Urban	54,634.687	23.028	27.543
Maddington	WMDN	Urban	54,634.687	23.028	27.543
Malaga	WMLG	Urban	54,634.687	23.028	27.543
Mandurah	WMHA	Urban	54,634.687	23.028	27.543
Manning Street	WMAG	Urban	54,634.687	23.028	27.543
Mason Road	WMSR	Urban	54,634.687	23.028	27.543
Meadow Springs	WMSS	Urban	54,634.687	23.028	27.543
Medical Centre	WMCR	Urban	54,634.687	23.028	27.543
Medina	WMED	Urban	54,634.687	23.028	27.543
Midland Junction	WMJX	Urban	54,634.687	23.028	27.543
Morley	WMOY	Urban	54,634.687	23.028	27.543
Mullaloo	WMUL	Urban	54,634.687	23.028	27.543
Mundaring Weir	WMWR	Urban	54,634.687	23.028	27.543
Munday	WMDY	Urban	54,634.687	23.028	27.543
Murdoch	WMUR	Urban	54,634.687	23.028	27.543
Myaree	WMYR	Urban	54,634.687	23.028	27.543

				Bundled	
Zone substation	TNI	Pricing zone	Fixed charge for first 1000 kVA (c per day)	Demand charge for 1000 <kva<7000 (c/kVA/day)</kva<7000 	Demand Charge for kVA > 7000 (c/kVA/day)
Nedlands	WNED	Urban	54,634.687	23.028	27.543
North Beach	WNBH	Urban	54,634.687	23.028	27.543
North Fremantle	WNFL	Urban	54,634.687	23.028	27.543
North Perth	WNPH	Urban	54,634.687	23.028	27.543
O'Connor	WOCN	Urban	54,634.687	23.028	27.543
Osborne Park	WOPK	Urban	54,634.687	23.028	27.543
Padbury	WPBY	Urban	54,634.687	23.028	27.543
Piccadilly	WPCY	Urban	54,634.687	37.125	39.626
Riverton	WRTN	Urban	54,634.687	23.028	27.543
Rivervale	WRVE	Urban	54,634.687	23.028	27.543
Rockingham	WROH	Urban	54,634.687	23.028	27.543
Shenton Park (Old)	WSPA	Urban	54,634.687	23.028	27.543
Shenton Park (New)	WSPK	Urban	54,634.687	23.028	27.543
Sth Ftle Power Station	WSFT	Urban	54,634.687	23.028	27.543
Southern River	WSNR	Urban	54,634.687	23.028	27.543
Tate Street	WTTS	Urban	54,634.687	23.028	27.543
University	WUNI	Urban	54,634.687	23.028	27.543
Victoria Park	WVPA	Urban	54,634.687	23.028	27.543
Waikiki	WWAI	Urban	54,634.687	23.028	27.543
Wangara	WWGA	Urban	54,634.687	23.028	27.543
Wanneroo	WWNO	Urban	54,634.687	23.028	27.543
Welshpool	WWEL	Urban	54,634.687	23.028	27.543
Wembley Downs	WWDN	Urban	54,634.687	23.028	27.543
Willetton	WWLN	Urban	54,634.687	23.028	27.543
Yokine	WYKE	Urban	54,634.687	23.028	27.543

D.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 D.12: Reference for tariffs RT5, RT6, RT7, RT8 and RT11

	Demand-Length Charge			
Pricing zone	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	1.705	1.205		
Mining	0.365	0.255		
Mixed	0.795	0.550		
Rural	0.495	0.345		

The prices in the following table are applicable for reference tariffs **RT7**, **RT8** and **RT11** and the CMD/DSOC is at least 7,000 kVA.

Table D.13: Reference tariffs RT7, RT8 and RT11

	Demand-Length Charge			
Pricing zone	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	1.460	1.025		
Mining	0.315	0.220		
Mixed	0.685	0.475		
Rural	0.430	0.295		

D.2.3 Metering prices

The prices in the following table are applicable for all reference tariffs (excluding RT9, RT10, RT25, RT26, RT27, RT28 and RT29).

The total metering price payable is the sum of the applicable charge in Table D.14, which is based on the reference tariff of the connection point and the charge in Table D.15, which is based on the metering reference service applicable to the connection point, or as selected by the retailer. The applicable metering reference service for each reference service is defined in Appendix E, table E.1.2³.

Note that for billing purposes, Western Power will calculate the total metering charge per connection point (a sum of the relevant charge in Table D.14 and Table D.15) as a single daily charge.

For the purposes of the Metering Model Service Level Agreement, the charges in Table D.15 (M1 – M15) are considered to be the incremental fees involved in providing the additional metering services.

Table D.14: Metering prices⁴

Reference Tariff	c/revenue meter/day
RT1	7.242
RT2	7.644
RT3	7.530
RT4	11.879
RT5 – RT8	13.095
RT11	13.095
RT13	7.242
RT14	7.644
RT15	7.246
RT16	12.926
RT17	13.095
RT18	13.095
RT19	13.095
RT20	13.095
RT21	13.095
RT22	13.095
RT34	7.644

https://www.erawa.com.au/cproot/20419/2/ERA-Approved---Appendix-E---Reference-Services.pdf

Additional charges will apply if the user has selected a non-standard metering service for the relevant exit, entry or bi-directional service. The charge will reflect Western Power's incremental costs of providing the additional metering services and may consist of capital and non-capital costs.

RT35	7.242
RT36	7.644
RT37	7.242
RT38	13.095
RT39	13.095
RT40	13.095
RT41	13.095
TRT1, TRT2 and TRT3	945.070

Table D.15: Metering prices

Metering Reference Service	Charge per site visit (\$)
RT31	25.000
RT32	25.000
RT33	25.000

Table D.16: Metering reference service prices

Metering Reference Service	c/revenue meter/day
M1	2.202
M2	2.202
M3	25.131
M4	50.262
M5	13.429
M6	13.429
M7 - SIM	116.413
M7 - AMI	2.202
M8	2.202
M9	2.202
M10	25.131
M11	50.262
M12	13.429
M13	13.429
M14 - SIM	116.413
M14 - AMI	2.202

Metering Reference Service	c/revenue meter/day
M15	50.262
M17	50.262
M18	50.262
M19	50.262
M20	50.262

Table D.17: One off manual metering reference service price

Metering Reference Service	Charge per site visit (\$)
M16	25.000

D.2.4 Administration charges

The prices in the following table are applicable for reference tariffs **RT7** and **RT8**.

Table D.18: Administration charges for RT7 and RT8

CMD	Price (c/day)
>=7,000 kVA	5,198.940
<7,000 kVA	9,054.540

D.2.3 LV prices

The prices in the following table are applicable for reference tariff RT8.

Table D.19: LV prices RT8

Bundled Tariff	Fixed Price	Demand
Dulluleu Tailii	c/day	c/kVA
RT8	1,124.020	10.959

D.2.4 Connection price

The prices in the following table are applicable for reference tariff **RT11**.

Table D.20: Connection Price RT11

	Connection Price (c/kW/day)
Connection price	1.953

D.3 Transmission prices

D.3.1 Use of system prices

The prices in the following table are applicable for reference tariff **TRT1**.

Table D.21: Transmission prices TRT1

Substation	TNI	Use of System Price (c/kW/day)
Albany	WALB	18.759
Alcoa Pinjarra	WAPJ	5.321
Amherst	WAMT	4.465
Arkana	WARK	5.699
Australian Fused Materials	WAFM	3.701
Australian Paper Mills	WAPM	5.770
Baandee (WC)	WBDE	20.108
Balcatta	WBCT	5.840
Beckenham	WBEC	14.731
Beechboro	WBCH	5.187
Beenup	WBNP	22.496
Belmont	WBEL	4.596
Bentley	WBTY	5.982
Bibra Lake	WBIB	4.108
Binningup Desalination Plant	WBDP	3.173
Black Flag	WBKF	20.504
Boddington Gold Mine	WBGM	3.442
Boddington	WBOD	3.354
Boulder	WBLD	18.076
Bounty	WBNY	44.405
Bridgetown	WBTN	9.188
British Petroleum	WBPM	7.933
Broken Hill Kwinana	WBHK	6.191
Bunbury Harbour	WBUH	3.034
Busselton	WBSN	9.503
Byford	WBYF	4.106

Substation	TNI	Use of System Price (c/kW/day)
Canning Vale	WCVE	4.696
Capel	WCAP	7.185
Carrabin	WCAR	23.229
Cataby Kerr McGee	WKMC	8.569
Chapman	WCPN	13.368
Clarence Street	WCLN	7.716
Clarkson	WCKN	5.819
Cockburn Cement	WCCT	3.225
Cockburn Cement Ltd	WCCL	3.215
Collie	WCOE	12.981
Collier	WCOL	7.679
Cook Street	WCKT	5.525
Coolup	WCLP	16.094
Cottesloe	WCTE	5.984
Cunderdin	WCUN	17.591
Darlington	WDTN	5.916
Edgewater	WEDG	5.123
Edmund Street	WEDD	5.271
Eneabba	WENB	9.626
Forrest Ave	WFRT	7.725
Forrestfield	WFFD	6.056
Geraldton	WGTN	10.971
Glen Iris	WGNI	3.580
Golden Grove	WGGV	28.756
Gosnells	WGNL	4.875
Hadfields	WHFS	5.859
Hay Street	WHAY	5.859
Hazelmere	WHZM	4.541
Henley Brook	WHBK	5.007
Herdsman Parade	WHEP	8.885
Joel Terrace	WJTE	8.064

Substation	TNI	Use of System Price (c/kW/day)
Joondalup	WJDP	5.491
Kalamunda	WKDA	6.188
Katanning	WKAT	15.037
Kellerberrin	WKEL	19.278
Kewdale	WKDL	4.505
Kojonup	WKOJ	6.879
Kondinin	WKDN	8.302
Kwinana Alcoa	WAKW	1.423
Kwinana Desalination Plant	WKDP	3.909
Kwinana PWS	WKPS	2.854
Landsdale	WLDE	5.281
Maddington	WMDN	4.745
Malaga	WMLG	4.510
Mandurah	WMHA	3.873
Manjimup	WMJP	9.021
Manning Street	WMAG	6.559
Margaret River	WMRV	15.133
Marriott Road Barrack Silicon Smelter	WBSI	2.902
Marriott Road	WMRR	2.542
Mason Road	WMSR	2.265
Mason Road CSBP	WCBP	3.426
Mason Road Kerr McGee	WKMK	2.077
Meadow Springs	WMSS	4.393
Medical Centre	WMCR	6.950
Medina	WMED	3.271
Merredin 66kV	WMER	16.405
Midland Junction	WMJX	5.520
Milligan Street	WMIL	6.544
Moora	WMOR	9.240
Morley	WMOY	6.019
Mt Barker	WMBR	16.324

Substation	TNI	Use of System Price (c/kW/day)
Muchea Kerr McGee	WKMM	8.718
Muchea	WMUC	5.773
Muja PWS	WMPS	1.736
Mullaloo	WMUL	5.672
Munday	WMDY	6.114
Murdoch	WMUR	3.658
Mundaring Weir	WMWR	8.856
Myaree	WMYR	6.987
Narrogin	WNGN	19.902
Nedlands	WNED	6.543
North Beach	WNBH	5.840
North Fremantle	WNFL	5.874
North Perth	WNPH	4.984
Northam	WNOR	11.757
Nowgerup	WNOW	6.736
O'Connor	WOCN	6.094
Osborne Park	WOPK	6.333
Padbury	WPBY	5.917
Parkeston	WPRK	20.576
Parklands	WPLD	4.516
Piccadilly	WPCY	16.363
Picton 66kv	WPIC	4.182
Pinjarra	WPNJ	3.229
Rangeway	WRAN	12.442
Regans	WRGN	9.899
Riverton	WRTN	4.043
Rivervale	WRVE	6.286
Rockingham	WROH	3.464
Sawyers Valley	WSVY	9.812
Shenton Park	WSPA	6.807
Southern River	WSNR	4.244

Substation	TNI	Use of System Price (c/kW/day)
South Fremantle 22kV	WSFT	4.401
Summer St	WSUM	8.323
Sutherland	WSRD	4.984
Tate Street	WTTS	7.028
Three Springs	WTSG	9.177
Three Springs Terminal (Karara)	WTST	22.162
Tomlinson Street	WTLN	7.121
University	WUNI	7.546
Victoria Park	WVPA	6.871
Wagerup	WWGP	2.530
Wagin	WWAG	15.411
Waikiki	WWAI	3.787
Wangara	WWGA	5.422
Wanneroo	WWNO	5.707
Wellington Street	WWNT	8.282
Welshpool	WWEL	4.478
Wembley Downs	WWDN	6.682
West Kalgoorlie	WWKT	14.958
Western Collieries	WWCL	2.547
Western Mining	WWMG	2.993
Westralian Sands	WWSD	6.515
Willetton	WWLN	4.303
Worsley	WWOR	2.113
Wundowie	WWUN	11.992
Yanchep	WYCP	5.715
Yerbillon	WYER	22.335
Yilgarn	WYLN	16.776
Yokine	WYKE	6.190

The prices in the following table are applicable for reference tariffs **RT11, TRT2** and **TRT3**.

Table D.22: Reference tariffs RT11, TRT2 and TRT3

Substation	TNI	Use of System Price (c/kW/day)
Albany	WALB	2.405
Badgingarra	BGA	2.453
Boulder	WBLD	1.741
Bluewaters	WBWP	2.420
Cockburn PWS	WCKB	1.467
Collgar	WCGW	2.778
Collie PWS	WCPS	2.814
Emu Downs	WEMD	2.453
Geraldton	WGTN	0.412
Greenough Solar Farm	TMGS	0.524
Kemerton PWS	WKEM	1.955
Kwinana Alcoa	WAKW	1.513
Kwinana Donaldson Road	WKND	1.149
Kwinana PWS	WKPS	1.467
Landwehr (Alinta)	WLWT	1.826
Mason Road	WMSR	1.149
Merredin Power Station	TMDP	2.022
Muja PWS	WMPS	2.954
Mumbida Wind Farm	TMBW	2.488
Mungarra GTs	WMGA	2.444
Newgen Kwinana	WNGK	1.707
Newgen Neerabup	WGNN	1.504
Oakley (Alinta)	WOLY	2.036
Parkeston	WPKS	2.099
Pinjar GTs	WPJR	1.220
Alcoa Pinjarra	WAPJ	2.138
Tiwest GT	WKMK	1.186
Wagerup	WWGP	1.683
Walkaway Windfarm	WWWF	2.699
West Kalgoorlie GTs	WWKT	1.707

Substation	TNI	Use of System Price (c/kW/day)
Worsley	WWOR	1.911
Yandin Wind Farm	WYDW	1.504
Merredin Solar Farm	WMSF	2.022
Warradarge Wind Farm	WWDW	2.453

D.3.2 Common service prices

The prices in the following table are applicable for reference tariff **TRT1**.

Table D.23: Common Service Prices TRT1

	Common Service Price (c/kW/day)
Common service price	5.602

D.3.3 Control system service prices

The prices in the following table are applicable for reference tariffs **RT11**, **TRT2** and **TRT3**.

Table D.24: Control system service prices for reference tariffs RT11, TRT2 and TRT3

	Price (c/kW/day)
Control system service price (Generators)	0.237

The prices in the following table are applicable for reference tariff **TRT1**.

Table D.25: Control system service prices for reference tariff TRT1

	Price (c/kW/day)
Control system service price (Loads)	2.102

D.4 Excess network usage charges – substation classification

The following table applies to reference tariffs **RT7**, **RT8**, **RT11**, **TRT1**, **TRT2** and **TRT3**. The quantum of these fees is subject to review as part of Western Power's revised AA5 proposal.

Table D.26: Values for ENUM for reference tariffs RT7, RT8, RT11, TRT1, TRT2 and TRT3

TNI	ENUM
ALB, BKF, BLD, BNY, PCY, PKS, WKT	2.5
All other substations	1

D.5 Other prices

The following table applies to reference tariff RT25.

Table D.27: Supply abolishment charges for RT25

Location	Charge (\$)
Whole current meters metropolitan area ⁵	448.844
Whole current meters non-Metropolitan area	571.696
Non- whole current meters	User specific charge which reflects the costs to Western Power of undertaking the requested supply abolishment requested by the user and may consist of capital and noncapital costs.

The following table applies to reference tariff RT26, RT27, RT28 and RT29.

Table D.28: Charges for RT26, RT27, RT28 and RT29

Service	Charge per request (\$)
RT26	5.508
RT27	5.508
RT28	5.508
RT29	5.508

D.6 Applications and Queuing Policy fees

The Applications and Queuing Policy refers to several fees being published in the Price List. These prices are detailed below and are subject to review as part of Western Power's revised AA5 proposal:

Table D.29: Fees payable under the Applications and Queuing Policy

Fee type	Price
New Standard Access Contract Fee	\$1,150.00
Access Contract Modification Fee	\$140 per modification
Enquiry Fee	\$3,500.00
Application Lodgement Fee	\$5,000.00
Preliminary Offer Processing Fee	A variable fee
Preliminary Acceptance Fee	A variable fee

⁵ As defined in the Electricity Industry (Metering) Code

Fee type	Price
Distributed energy or other non-network solution assessment fee (B3 or C15)	A variable fee ⁶
Capacity allocation service fee – for a capacity swap reference service (D2)	\$350.00
Remote load control/limitation/de-energise/re-energise service fee	A variable fee

Table D.30: Fees payable under the Applications and Queuing Policy

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 C5 – High Voltage Metered Demand Bi-directional Service	\$44.00 per connection point
A6 – Low Voltage Metered Demand Exit Service C6 – Low Voltage Metered Demand Bi-directional Service	\$44.00 per connection point
A7 – High Voltage Contract Maximum Demand Exit Service C7 – High Voltage Contract Maximum Demand Bi-directional Service	\$88.00 per connection point
A8 – Low Voltage Contract Maximum Demand Exit Service C8 – Low Voltage Contract Maximum Demand Bi-directional Service	\$88.00 per connection point
A9 – Streetlighting Exit Service	\$0.00 per connection point
A10 – Unmetered 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
B3 – Entry Service Facilitating a Distributed Generation or Other Non-Network Solution	\$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

Western Power intends to review this with a view to defining a fixed fee in its AA5 revised proposal.

Application for Reference Service	New Connection Point Fee
A12 – 3 Part Time of Use Energy (Residential) Exit Service C9 – 3 Part Time of Use Energy (Residential) Bi-directional Service	\$0.00 per connection point
A13 – 3 Part Time of Use Energy (Business) Exit Service C10 – 3 Part Time of Use Energy (Business) Bi-directional Service	\$0.00 per connection point
A14-3 Part Time of Use Demand (Residential) Exit Service $C11-3$ Part Time of Use Demand (Residential) Bi-directional Service	\$0.00 per connection point
A15 – 3 Part Time of Use Demand (Business) Exit Service C12 – 3 Part Time of Use Demand (Business) Bi-directional Service	\$0.00 per connection point
A16 – Multi Part Time of Use Energy (Residential) Exit Service C13 – Multi Part Time of Use Energy (Residential) Bi-directional Service	\$0.00 per connection point
A17 – Multi Part Time of Use Energy (Business) Exit Service C14 – Multi Part Time of Use Energy (Business) Bi-directional Service	\$0.00 per connection point
C15 – Bi-directional Service Facilitating a Distributed Generation or Other Non-Network Solution	\$175.00 per connection point

The AQP includes two variable fees, the preliminary offer processing fee and preliminary acceptance fee. The methodology for these fees can be found on the following webpage:

https://westernpower.com.au/about/regulation/network-access-prices/

Appendix E - Forecast Update

E.1 Peak Demand Forecast

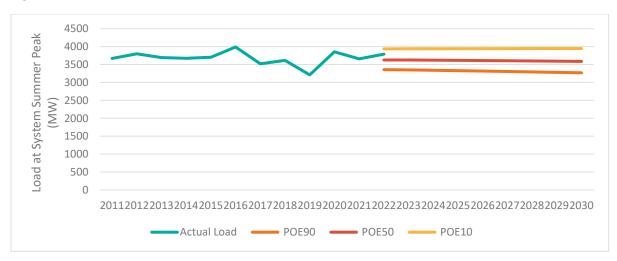
Western Power forecasts peak demand to remain relatively flat over the AA5 period, after
adjusting for the decrease in the FY23 forecast compared with the actual peak demand in
FY22. Both the forecast PoE10 and PoE50 peak demand forecasts are increasing marginally
over the AA5 period.

Table E.1 and Figure E.1 outline the forecast PoE90, PoE50 and PoE10 peak demand for the AA5 period using the central growth scenario.

Table E.1 Peak Demand Forecast

Year	FY22	FY23	FY24	FY25	FY26	FY27
Actual	3,455					
POE 10 peak demand forecast		3,517	3,527	3,537	3,548	3,559
POE 50 peak demand forecast		3,316	3,317	3,320	3,322	3,325
POE 90 peak demand forecast		3,042	3,033	3,024	3,016	3,008
Annual change in demand (MW) POE 50		-139	1	3	2	3
Annual change in demand (%)		-4.0%	0.1%	0.1%	0.1%	0.1%

Figure E.1 Load at Summer Peak

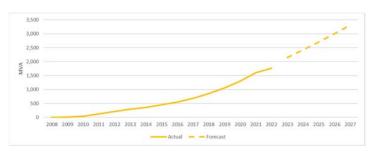


Generally, Western Power anticipate the relatively flat forecast peak demand at a system level will continue in the medium-term.

E.2 Energy & Customer Numbers Forecast (2022)

Western Power notes that **Attachment 1.3 Energy and Customer Numbers Forecast (2022)** submitted as part of Western Power's the Revised Proposal on November, contained incorrect PV Capacity MVA numbers in *Figure 4-2 Solar PV installed capacity & export sales*. The corrected figures are shown in red below.

Figure 3-1: Solar PV installed capacity



Source: Energy and Customer Numbers Forecast 2021.xlsx [EDM# 61726036]

Figure 3-2: Installed DER capacity & export sales

FY	Distribution Sales (GWh)	PV capacity (MVA)
2017	13,598GWh	689 7,429
2018	13,512 GWh	861 9,371
2019	13,324 GWh	1056 11,624
2020	13,604 GWh	1297 14,163
2021	13,622 GWh	1610 17,660
2022	14,158 GWh	1769 20,091
2023	13,670 GWh	2150.3 24,352
2024	13,585 GWh	2422.4 27,561
2025	13,421 GWh	2705.4 30,897
2026	13,306 GWh	3000.4 34,369
2027	13,103 GWh	3308.0 37,990