



2020-25 Tariff Structure Statement Part A

June 2020
(Erratum August 2020)

This document outlines:

- › the 2020-25 tariff structures to recover the allowed Standard Control Services revenue from our customers; and
- › the Alternative Control Services we will provide our customers during the 2020-25 Regulatory Control Period.

Contents

| | | |
|------------------------|---|-----------|
| Contents | 3 | |
| List of figures | 4 | |
| List of tables | 4 | |
| 17 | Tariff Structure Statement | 5 |
| 17.1 | Overview | 5 |
| 17.2 | Tariff classes and assignment policies | 6 |
| 17.3 | Tariff assignment policies | 9 |
| 17.4 | Tariff structures and charging parameters | 15 |
| 17.5 | Approach to setting tariffs | 20 |
| Appendix A. | Compliance checklist | 26 |
| Appendix B. | Tariff structures – Standard Control Services | 30 |
| Appendix C. | Tariff structures – Alternative Control Services | 34 |
| Glossary | | 48 |

List of figures

| | |
|--|----|
| Figure 17A-1: Assignment of new and upgraded customer connections to tariff classes from 1 July 2021 .. | 13 |
| Figure 17A-1A: Assignment of new and upgraded customer connections to tariff classes – 2020/21 only transitional arrangements..... | 14 |

List of tables

| | |
|---|----|
| Table 17A-1: Structure of TSS Part A..... | 5 |
| Table 17A-2: Residential tariff structures and charging parameters | 16 |
| Table 17A-3: Controlled load tariffs* | 16 |
| Table 17A-4: Small business tariff structures and charging parameters (<160MWh pa) | 17 |
| Table 17A-5: Large business tariff structures and charging parameters (>160MWh pa) | 18 |
| Table 17A-6: Major business tariff structures and charging parameters..... | 19 |
| Table 17A-7: LRMC of our distribution network (\$/kVA pa) | 21 |
| Table 17A-8: 2020/21 Revenue cost allocation across network elements and to tariff classes..... | 23 |
| Table 17A-9: Compliance with the NER..... | 26 |
| Table 17A-10: Residential and small business price structure | 31 |
| Table 17A-11: Large LV business price structure | 32 |
| Table 17A-12: Large HV business and Major business Indicative price structure | 33 |
| Table 17A-13: Proposed Fee-based charges service descriptions | 34 |
| Table 17A-14: Proposed labour rates components for quoted charges | 39 |
| Table 17A-15: Proposed annual metering service charges components | 40 |
| Table 17A-16: Annual public lighting charges components – LED lights | 41 |
| Table 17A-17: Annual public lighting charges components - HID lights..... | 44 |

17 Tariff Structure Statement

17.1 Overview

This Tariff Structure Statement (**TSS**) provides details on the pricing structure by which SA Power Networks recovers the revenue allowed by the Australian Energy Regulator (**AER**), for the provision of Standard Control Services (**SCS**). It has been prepared by SA Power Networks under the requirements of Chapter 6 of the National Electricity Rules (**NER**, or **the Rules**). As noted below, our TSS is in two parts – Part A and Part B¹.

In addition to our SCS, Part A of the TSS includes the ~~indicative~~ pricing components associated with our Alternative Control Services (**ACS**). Appendix C sets out our ~~proposed~~ tariff structure for ACS comprising of fee-based and quoted services related to:

- **Ancillary network services**
- **Metering services**
- **Public Lighting services**

ACS are direct control services that are initiated by and/or are directly attributable to specific customers (i.e. where the cost of the service can be assigned to an individual customer), that are subject to direct regulatory oversight. For the 2020-25 regulatory control period (**RCP**), the AER proposed to classify type 5 and 6 metering services (legacy metering services), various other metering related services, non-standard connection services, network ancillary services and public lighting services as ACS. Further details on ACS are available in Attachment 14 – Alternative control services.

We have prepared our TSS in two parts: Part A, which outlines the compliance of our TSS with the NER; and Part B, which is an explanatory statement that provides the reasoning behind the tariff structures that we have proposed. Table 17A-1 below, provides an outline of the structure of Part A of our TSS for the 2020-25 RCP.

Table 17A-1: Structure of TSS Part A

| Section | | Purpose |
|-------------------|---|--|
| 17.2 | Tariff classes and assignment policies | Defines the customer classes for which tariffs are developed. It outlines the process of assigning customers to tariff <u>classes</u> and the NER with which we need to comply relating to tariff <u>class</u> assignment including opt-in and opt-out provisions. |
| 17.3 | Tariff assignment policies | Explains how we will assign each customer to a network tariff, and how any tariff choices available to retailers/customers can be exercised. |
| 17.4 | Tariff structures and charging parameters | Explains how we recover revenue from our customers and outlines our tariff classes, tariff structures and their charging parameters. |
| 17.5 | Approach to setting tariffs | An overview of the pricing methodology, incorporating a summary of the compliance with the customer principles and the NER. |
| Appendices | | |
| A | Compliance checklist | This appendix provides a checklist that identifies where the TSS rule requirements are met within our submission. |
| B | <u>Tariff structures</u> – Standard Control Services | Provides a summary of our indicative pricing for the 2020-25 RCP for SCS. |
| C | <u>Tariff structures</u> – Alternative Control Services | Provides a summary of our indicative pricing for the 2020-25 RCP for ACS. |
| Glossary | | Provides a description of the shortened forms used within this document |

¹ This follows a suggestion by the AER in its draft decision on our original regulatory proposal for the 2020-25 regulatory control period that our TSS should take the form of a two-document structure.

17.2 Tariff classes and assignment policies

This section of our TSS sets out the tariff classes into which retail customers for direct control services will be divided during the 2020-25 RCP, and the policies and procedures that we will apply for assigning retail customers to these tariff classes.²

17.2.1 Tariff classes

Part of the process of tariff design is to identify different tariff classes in order to consider tariffs that might apply to the customers in each class.

Tariff classes are defined by various attributes such as supply voltage, annual consumption and customer type. We do not differentiate between customers with or without Distributed Energy Resources (**DER**), nor on the type of meter installed. The type of meter does impact on which tariff can be used within the tariff class.

We have retained the SCS tariff classes used in our 2017-20 TSS. They are:

- **Residential**
- **Small business**, business customers using less than 160 MWh pa, as per SA legislative definitions
- **Large Low Voltage (LV) business**, connected to the low voltage network but using more than 160 MWh pa
- **High Voltage (HV) business**, connected to the 11kV high voltage system
- **Major business**, customers that require at least 5,000 kVA capacity and are connected to either the 11kV bus at a zone substation or the sub-transmission system (33kV or 66kV)

17.2.2 Assigning customers to tariff classes

In accordance with the principles ~~of in~~ the Rules³ ~~this AER will make a section sets out determination on~~ the procedure to apply to assigning or re-assigning customers to tariff classes ~~as part of its final decision~~ for the 2020-25 RCP.⁴

These provisions will cover the following aspects:

- Assignment of existing retail customers to tariff classes at the commencement of the 2020-25 RCP (on 1 July 2020)
- Assignment of new retail customers⁵ to a tariff class during the 2020-25 RCP (from July 2020 to June 2025)
- Re-assignment of existing retail customers to another existing or a new tariff class during the 2020-25 RCP (from July 2020 to June 2025)
- Objections to proposed assignments and re-assignments

Tariff class assessments are based on:

- the nature of a customer's usage (i.e. residential or business);
- a small business customer is connected to the LV network and has annual consumption below 160MWh pa.; and

² NER, clauses 6.18.1A(a)(1) and 6.18.1A(a)(2).

³ NER, clause 6.18.4.

⁴ Technically, the policies and procedures for assigning consumers to tariff classes are an element of the distribution determination but are not an element of the TSS. This is because this element of the framework predates the TSS framework. However, for simplicity and convenience for stakeholders, the AER has presented the tariff class policies and procedures within the same document as SA Power Networks' TSS. Ie the policies and procedures are included within this document.

⁵ I.e. new connections to the distribution network

- a large business customer uses more than 160 MWh pa. The nature and extent of the associated connection to the network is considered (the connection voltage, or directly connected to a zone substation).

~~The AER’s decision on the tariff class assignment policies and procedures to inform the AER on this process, SA Power Networks is has set out below how we propose to deal with these aspects of the Rules.~~

Assignment of existing retail customers to a tariff class at the commencement of the 2020-25 RCP

- 1) SA Power Networks’ retail customers will be “assigned” to the tariff class to which SA Power Networks was charging them immediately prior to 1 July 2020 if:
 - a) they were a SA Power Networks’ retail customer prior to 1 July 2020; and
 - b) they continue to be a retail customer of SA Power Networks as at 1 July 2020.

Assignment of new retail customers to a tariff class during the 2020-25 RCP

- 2) If, after 1 July 2020, SA Power Networks becomes aware that a person will become a retail customer, then SA Power Networks must determine the tariff class to which the new customer will be assigned.
- 3) In determining the tariff class to which a retail customer or potential retail customer will be assigned, or re-assigned, in accordance with point 2 or 5 of this section, SA Power Networks must take into account one or more of the following factors:
 - a) the nature and extent of the retail customer’s usage
 - b) the nature of the retail customer’s connection to the network
 - c) whether remotely read interval metering or other similar metering technology has been installed at the retail customer’s premises as a result of a regulatory obligation or requirement.
- 4) In addition to the requirements under point 3 above, SA Power Networks, when assigning or re-assigning a retail customer to a tariff class, must ensure:
 - a) retail customers with similar connection and usage profiles are treated equally; and
 - b) retail customers who have micro-generation facilities are not treated less favourably than retail customers with similar load profiles without such facilities.

Re-assignment of existing retail customers to another existing or a new tariff class during the next Regulatory Control Period

- 5) SA Power Networks may re-assign a retail customer to another tariff class if the existing retail customer’s load characteristics or connection characteristics (or both) have changed such that it is no longer appropriate for that retail customer to be assigned to the tariff class to which the retail customer is currently assigned, or a retail customer no longer has the same or materially similar load or connection characteristics as other retail customers in the retail customer’s existing tariff class. In determining the tariff class to which a retail customer will be re-assigned, SA Power Networks must take into account points 3 and 4 above.

Objections to proposed assignments and re-assignments

- 6) SA Power Networks must notify a customer’s retailer in writing of the tariff class to which the retail customer has been assigned or re-assigned, prior to the assignment or re-assignment occurring.
- 7) A notice under point 6 above must include advice informing the customer’s retailer that they may request further information from SA Power Networks and that the retail customer may object to the proposed re-assignment. This notice must specifically include:
 - a) a written document describing SA Power Networks’ internal procedures for reviewing objections;

- b) that if the objection is not resolved to the satisfaction of the customer’s retailer under SA Power Networks’ internal review system within a reasonable timeframe, then, to the extent that resolution of such disputes is within the jurisdiction of the Energy and Water Ombudsman of South Australia, or like officer, the customer’s retailer is entitled to escalate the matter to such a body; and
 - c) that if the objection is not resolved to the satisfaction of the customer’s retailer under SA Power Networks’ internal review system and the body noted in clause 7b above, then the customer or its retailer is entitled to seek a decision of the AER via the dispute resolution process available under Part 10 of the National Electricity Law (**NEL**).
- 8) If, in response to a notice issued in accordance with point 7 above, SA Power Networks receives a request for further information from a customer’s retailer, then it must provide such information within a reasonable timeframe. If SA Power Networks reasonably claims confidentiality over any of the information requested by the customer’s retailer, then it is not required to provide that information to the customer’s retailer. If the customer’s retailer disagrees with such confidentiality claims, he or she may have resort to the dispute resolution procedures referred to in point 7 (as modified for a confidentiality dispute).
- 9) If, in response to a notice issued in accordance with point 7 above, a customer’s retailer makes an objection to SA Power Networks about the proposed assignment or re-assignment, SA Power Networks must reconsider the proposed assignment or re-assignment. In doing so SA Power Networks must take into consideration the factors in points 3 and 4 above and notify the customer’s retailer in writing of its decision and the reasons for that decision.
- 10) If a customer’s retailer’s objection to a tariff assignment or re-assignment is upheld by the relevant body noted in points 7b and 7c above, then any adjustment which needs to be made to tariffs will be done by SA Power Networks as part of the next annual review of prices.
- 11) If a customer’s retailer objects to SA Power Networks’ tariff class assignment SA Power Networks must provide the information set out in point 7 above and adopt and comply with the arrangements set out in points 8, 9 and 10 above in respect of requests for further information by the customer’s retailer and resolution of the objection.

17.3 Tariff assignment policies

In this section of the TSS, SA Power Networks describes the process it applies to the assignment of customers to tariffs on 1 July 2020 and during the 2020-25 RCP. Individual tariffs have been grouped within tariff classes in this ~~proposed~~ TSS. ~~Our existing approach to managing tariff assignment and re-assignment is proposed to continue. Our approach aligns with the AER's requirements. The changes to the tariff assignment policies below are the result of a decision of the AER.~~

- a) In response to the economic uncertainty resulting from the COVID-19 pandemic, the initial tariff assignment on 1 July 2020 and during the first year of the regulatory control period (2020/21) will differ from the remainder of the 2020-25 RCP, particularly for small customers (residential and small business).
- b) The following small customer tariffs remain open during 2020/21 but are closed to new customers⁶ from 1 July 2021:
- Residential Single rate (RSR) for type 4 or type 5 meters;
 - Small Business Single rate (BSR) for type 4 or type 5 meters;
 - Small Business 2-Rate (B2R) for type 4 or type 5 meters;
 - Companion OPCL controlled load tariff for BSR and B2R for type 4 or type 5 meters; and
 - Small Business Actual kVA demand – transition (SBD) for type 4 meters.
- c) Note that Large Business Actual kVA Demand (BD and HBD) are closed to new customers⁷ from 1 July 2020, as originally proposed in this TSS.

Residential and Small business – Initial Tariff Assignment 2020/21

- d) On 1 July 2020, all existing customers will remain on the tariff they were assigned to as at 30 June 2020 unless:
- The customer needs to be reassigned to a different tariff class because of their characteristics, e.g. they should be classified as small business, not large LV business. If there is a similar tariff available in the new tariff class, then that tariff will be used. Otherwise, they will be assigned to the default tariff for that tariff class, meter type, and size of customer.
 - The tariff is removed from 1 July 2020, e.g. SLV Agreed Demand (Small business). The retailer may elect an alternate tariff, otherwise SA Power Networks will assign the customer to either the default tariff or the least-cost tariff, as advised to the retailer.
 - The tariff was off peak controlled load (OPCL) paired with a residential tariff using a type 4 meter. In this situation, the tariff assigned will be controlled load time-of-use (CL-ToU) with residential single rate (RSR), unless the Retailer opts-in to either residential time-of-use tariff (RTOU) or residential prosumer tariff (RPRO) for that customer.
- The retailer informs SA Power Networks of the desired tariff assignment for that existing customer prior to 1 July 2020.
- e) During 2020/21:
- A new residential or small business customer who connects to the distribution network or an existing customer who initiates an upgrade to their connection (e.g. to connect distributed energy resources (DER)) will be assigned to the default tariff for interval meters for that tariff class. The retailer may request to opt-out the customer of that tariff assignment to legacy type 6 meter tariffs still open. The retailer may request the customer opt-in to new type 4 meter tariffs. The retailer will advise SA Power Networks of such elections.
 - Existing customers will remain assigned to their current tariff after receiving a type 4 meter to replace a type 5 or type 6 meter as an end of life meter replacement or for other reasons not

⁶ I.e. anyone not assigned to these tariffs by 30 June 2020

⁷ I.e. anyone not assigned to these tariffs by 30 June 2020

initiated by the customer. The retailer may request the customer opt-in to new type 4 meter tariffs. The retailer will advise SA Power Networks of such elections.

Residential and Small business – Choice of Tariff Assignment 2020/21

f) During 2020/21:

- Retailers can request that a customer be reassigned from one tariff to another. This may be a transfer from the default to an opt-in, from an opt-in back to the default, or from a closed transition tariff to an open tariff.
- A retailer can request one tariff reassignment for a residential and small business customer during 2020/21. This tariff reassignment is in addition to the initial tariff assignment, e.g. the 1 July 2020 tariff assignment (see d) above) or assignment of new connections (see e) above).
- Where there is a change of retailer and/or customer at a national metering identifier (NMI), the existing tariff assignment will continue unless the retailer requests otherwise. The new retailer can request a tariff reassignment independent of any tariff choices made by the previous retailer.

Residential and Small business – Tariff Assignment from 2021/22

g) For 1 July 2021:

- We will retain all opt-in tariff elections to type 4 meter open tariffs from 2020/21.
- We will advise retailers of the network tariff all other existing customers have been assigned to. The default tariff for that tariff class, meter type and size of customer will be used in most cases except where a least-cost alternative is known. For example:
 - a residential customer with type 6 metering remains assigned to a residential single rate (RSR), off-peak controlled load associated with that customer is assigned to OPCL
 - a residential customer with type 4 metering is assigned to residential time of use (RTOU), any controlled load associated with that customer remains assigned to CL-Time of Use (CL-ToU);
 - a small business customer with type 4 or type 5 metering previously on BSR or B2R is assigned to business time of use (BTOU)
 - a small business customer with anytime demand exceeding 120 kVA over the last 12 months is assigned to ToU + Maximum Demand (TOU+MD).
- An exception to 1 July 2021 default tariff assignment will occur where the least cost tariff option for that customer is the existing business actual demand tariff (SBD). Retailers may elect to opt-out of this transitional tariff during the 2020-25 RCP. From 1 July 2021 the business actual demand tariff (SBD) becomes a transition tariff and is closed to new small business customers.

h) From 1 July 2021:

- A new customer who connects to the distribution network, or
- an existing customer who upgrades their connection to a type 4 meter for any reason, e.g.:
 - to connect DER
 - to provide tariff choice
 - an end of life meter replacement for a type 5 or type 6 meterwill be assigned to the default tariff for interval meters for that tariff class.
- A retailer can request tariff reassignment for a residential or small business customer. This tariff reassignment is in addition to the initial tariff assignment, e.g. the 1 July 2021 tariff assignment (see g) above). The retailer requested tariff reassignment will apply for a minimum of 12 months before a subsequent reassignment can occur.
- Where there is a change of retailer and/or customer at a national metering identifier (NMI), the existing tariff assignment will continue unless the new retailer requests otherwise. The new retailer can request a tariff reassignment independent of any tariff choices made by the previous retailer.

Large Business⁸ – Initial Tariff Assignment 2020/21

i) On 1 July 2020, all existing customers will remain on the tariff they were assigned to as at 30 June 2020 unless:

- The customer needs to be reassigned to a different tariff class because of their characteristics, e.g. they should be classified as large LV business, not small business. If there is a similar tariff available in the new tariff class, then that tariff will be used. Otherwise, they will be assigned to the default tariff for that tariff class, meter type, and size of customer.
- The tariff is removed from 1 July 2020, e.g. LV Agreed Demand (Large LV Business) and HV Agreed demand (HV Large Business). The retailer may elect an alternate tariff, otherwise SA Power Networks will assign the customer to either the default tariff or the least-cost tariff, as advised to the retailer.
- The retailer informs SA Power Networks of the desired tariff assignment for that existing customer prior to 1 July 2020.
 - Note that a large business customer or their agent may prior to 1 July 2020 instruct their retailer of which network tariff they feel best suits their business for 1 July 2020. The retailer shall inform SA Power Networks of this choice.-

j) During 2020/21,

- A new large business customer who connects to the distribution network or an existing small business customer who upgrades their connection will be assigned to the default tariff for interval meters for that tariff class. The retailer may request to opt-out the customer of that tariff assignment to other type 4 meter tariff options still open. The retailer may request the customer opt-in to new type 4 meter tariffs. The retailer will advise SA Power Networks of such elections.
 - Note that a large business customer or their agent may prior to 1 July 2020 instruct their retailer of which network tariff they feel best suits their business for 1 July 2020. The retailer shall inform SA Power Networks of this choice.
- During 2020/21, an existing large business customer with a type 6 meter who receives a type 4 meter for any reason will be assigned to the default tariff for that tariff class, meter type, and size of customer. The retailer may request the customer opt-in to new type 4 meter tariffs. The retailer will advise SA Power Networks of such elections.

Large Business – Choice of Tariff Assignment during 2020/21

k) During 2020/21:

- Retailers can request that a customer be reassigned from one tariff to another. This may be a transfer from the default to an opt-in, from an opt-in back to the default, or from a closed transition tariff to an open tariff.
 - A retailer can request one tariff reassignment for a large business customer during 2020/21. This tariff reassignment is in addition to the initial tariff assignment e.g. the 1 July 2020 tariff assignment (see i) above).
 - A customer may only be reassigned from Actual Monthly Demand (BD) or Monthly Demand to Annual Demand on 1 July 2020 or 1 January 2021.
 - A customer can only be reassigned to Actual Monthly Demand (BD) or Monthly Demand from Annual Demand or Agreed Annual Demand on 1 July 2020 or 1 January 2021.
 - Note that a large business customer or their agent may during 2020/21 instruct their retailer of which network tariff they feel best suits their business. The retailer shall inform SA Power Networks of this choice.
- Where there is a change of retailer and/or customer at a national metering identifier (NMI), the existing tariff assignment will continue unless the new retailer requests otherwise. The new retailer can request a tariff reassignment independent of any tariff choices made by the previous retailer.

⁸ Incorporates Large LV Business, HV Business and Major Business tariff classes, broadly >160 MWh

Large Business – Tariff Assignment from 2021/22**l) For 1 July 2021:**

- We will retain all opt-in tariff elections to type 4 meter open tariffs from 2020/21.
- We will advise retailers of the least-cost alternative tariff for each customer. Retailers may elect to opt-in to the least cost alternative.

m) From 1 July 2021:

- A new customer who connects to the distribution network, or an existing customer who upgrades their meter from a type 6 meter to a type 4 meter for any reason, e.g.
 - to connect DER,
 - to provide tariff choice,
 - an end of life meter replacement for a type 5 or type 6 meterwill be assigned to the default tariff for interval meters for that tariff class.
- A retailer can request tariff reassignment for a large business customer. The retail requested tariff reassignments will apply for a minimum of 12 months before a subsequent reassignment can occur. This tariff reassignment is in addition to any initial tariff assignment.
 - A customer may only be reassigned from Actual Monthly Demand (BD) or Monthly Demand to Annual Demand on 1 July or 1 January.
 - Note that a large business customer or their agent may instruct their retailer of which tariff they feel best suits their business. The retailer shall inform SA Power Networks of this choice.
- Where there is a change of retailer and/or customer at a national metering identifier (NMI), the existing tariff assignment will continue unless the new retailer requests otherwise. The new retailer can request a tariff reassignment independent of any tariff choices made by the previous retailer.

- a) ~~We will advise retailers of the network tariff each existing customer has been assigned to from 1 July 2020. The default tariff for that tariff class, meter type and size of customer will be used in most cases. For example:~~
- ~~a residential customer with type 6 metering is assigned to a residential single rate (RSR),~~
 - ~~a residential customer with Off-Peak Controlled Load (OPCL) (hot water) and type 4 metering is assigned to OPCL-Time of Use (ToU),~~
 - ~~a small business customer with type 4 or type 5 metering is assigned to ToU, and~~
 - ~~a business customer with anytime demand exceeding 120 kVA over the last 12 months is assigned to ToU+Maximum Demand (MD).~~
- b) ~~The exception to default tariff assignment will occur where the least cost tariff option for that customer is the existing business actual demand tariff. From 1 July 2020 the business actual demand tariff becomes a transition tariff and is closed to new customers. Retailers may elect to opt-out of this transitional tariff during the 2020-25 RCP.~~
- c) ~~During the 2020-25 RCP, retailers can request that a customer be reassigned from one tariff to another. This may be a transfer from the default to an opt-in, from an opt-in back to the default, or from the closed transition tariff to an open tariff. A retailer cannot ask for a customer tariff reassignment more than once in any 12-month period.~~
- d) ~~Where a new customer connects to the distribution network, SA Power Networks will presume the default tariff will be assigned unless we receive instructions from the retailer.~~
- e) ~~Where there is a change of retailer and/or a change of customer at a National Metering Identifier (NMI), we will presume that the existing tariff assignment continues unless we receive a tariff reassignment request from the retailer~~

The process whereby customers of a tariff class are assigned to tariffs follows in Figure 17A-1. In the application of this process, a customer that has a type 6 meter replaced is treated in the same manner as a new connection customer, i.e. the default tariff for a type 4 meter in that tariff class will be used. Figure

17A-1A provides further context on the assignment of new and upgraded customer connections for 1 July 2020.

Figure 17A-1: Assignment of new and upgraded customer connections to tariff classes from 1 July 2021

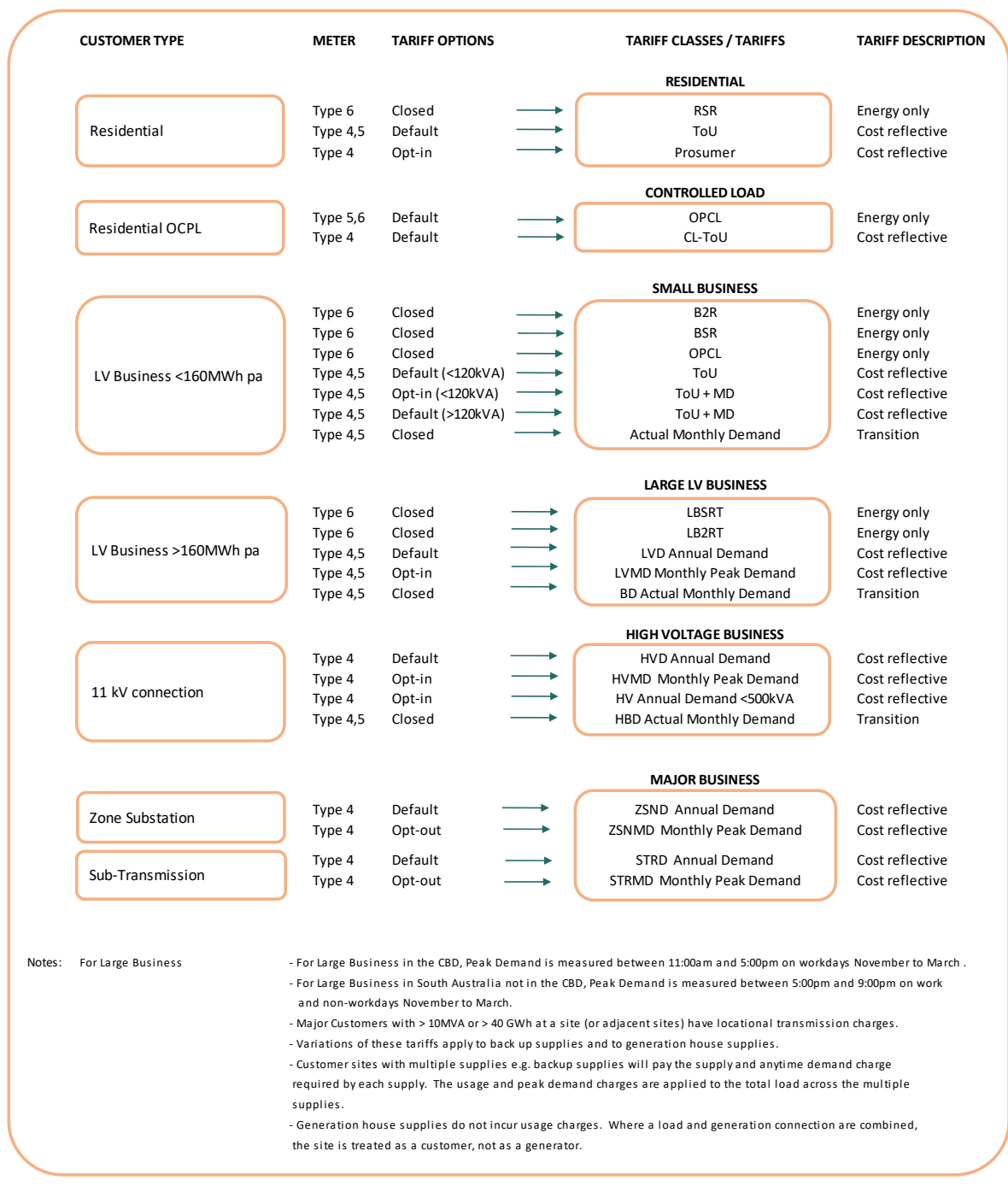


Figure 17A-1A: Assignment of new and upgraded customer connections to tariff classes – 2020/21 only transitional arrangements

| | NMI's | | | Assignment 01-July-2020 | Choices Opt-In 2020/21 | | | | | | |
|-----------------------------|----------------|---------------|--------------|----------------------------|------------------------|------|------|----------|-----------|------------|------------|
| | 30-April-2020 | Tariff CI % | % with PV | | RSR | RTOU | RPRO | RSR-OPCL | RSR-CLTOU | RTOU-CLTOU | RPRO-CLTOU |
| Residential | | | | | | | | | | | |
| Res | 391,133 | 49.7% | 25.2% | RSR | | | | | | | |
| Res + OPCL | 253,432 | 32.2% | 30.8% | RSR-OPCL | | | | | | | |
| Type 6 meters | 644,565 | 81.9% | 27.4% | | | | | | | | |
| Res | 99,478 | 12.6% | 48.2% | RSR | | | | | | | |
| Res + OPCL | 43,264 | 5.5% | 49.1% | RSR-CLTOU | | | | | | | |
| Res Trial | 11 | 0.0% | | RTOU | | | | | | | |
| Res Trial CL | 5 | 0.0% | | RTOU-CLTOU | | | | | | | |
| Res D | 5 | 0.0% | | RPRO | | | | | | | |
| Res D + OPCL | 18 | 0.0% | | RPRO-CLTOU | | | | | | | |
| Type 4 Meters | 142,781 | 18.1% | 48.5% | | | | | | | | |
| Post 1 July 2020 | | | | | | | | | | | |
| New | | | | RTOU/RTOU-CLTOU | | | | | | | |
| Alt to Supply | | | | RTOU/RTOU-CLTOU | | | | | | | |
| Meter Upgrade | | | | RTOU/RTOU-CLTOU | | | | | | | |
| Meter Repl Failure | | | | as is | | | | | | | |
| Total Residential | 787,346 | 100.0% | 31.2% | | | | | | | | |
| Small Business | | | | | | | | | | | |
| BSR | 47,638 | 51.4% | | BSR | | | | | | | |
| BSR + OPCL | 2,136 | 2.3% | | BSR + OPCL | | | | | | | |
| B2R | 24,295 | 26.2% | | B2R | | | | | | | |
| B2R + OPCL | 636 | 0.7% | | B2R + OPCL | | | | | | | |
| Type 6 meters | 74,705 | 80.6% | 6.2% | | | | | | | | |
| BSR Int | 2,469 | 2.7% | | BSR | | | | | | | |
| BSR + OPCL Int | 103 | 0.1% | | BSR + OPCL | | | | | | | |
| B2R Int | 5,351 | 5.8% | | B2R | | | | | | | |
| B2T + OPCL Int | 108 | 0.1% | | B2R + OPCL | | | | | | | |
| SBDT | 4,988 | 5.4% | | SBD | | | | | | | |
| SBD | 4,633 | 5.0% | | SBD | | | | | | | |
| SLV | 331 | 0.4% | | Least Cost | | | | | | | |
| Type 4 Meters | 17,983 | 19.4% | 31.2% | | | | | | | | |
| Post 1 July 2020 | | | | | | | | | | | |
| New | | | | TOU, opt-out | | | | | | | |
| Alt to Supply | | | | TOU, opt-out | | | | | | | |
| Meter Upgrade | | | | TOU, opt-out | | | | | | | |
| Meter Repl Failure | | | | as is | | | | | | | |
| Total Small Bus | 92,688 | 100.0% | 11.0% | | | | | | | | |
| Large LV Business | | | | | | | | | | | |
| BSRT Type 6 | 15 | 0.3% | | BSRT | | | | | | | |
| B2RT Type 6 | 48 | 0.9% | | B2RT | | | | | | | |
| BSRT Type 4 | | | | least cost | | | | | | | |
| B2RT Type 4 | | | | least cost | | | | | | | |
| BDT incl Trans | 137 | 2.6% | | BD | | | | | | | |
| BD | 2,155 | 40.3% | | BD | | | | | | | |
| LV | 2,969 | 55.6% | | least cost | | | | | | | |
| LVN | 17 | 0.3% | | least cost | | | | | | | |
| Post 1 July 2020 | | | | | | | | | | | |
| New | | | | Annual Demand | | | | | | | |
| Alt to Supply | | | | Annual Demand | | | | | | | |
| Meter Upgrade | | | | Annual Demand | | | | | | | |
| Meter Repl Failure (Type 6) | | | | Annual Demand | | | | | | | |
| Total Large LV Bus | 5,341 | 100.0% | 24.1% | | | | | | | | |
| Large HV Business | | | | | | | | | | | |
| HBD | 39 | 16.9% | | HBD | | | | | | | |
| HV <400 (LV) | 41 | 17.7% | | least cost | | | | | | | |
| HV | 119 | 51.5% | | least cost | | | | | | | |
| HVN | 32 | 13.9% | | least cost | | | | | | | |
| Post 1 July 2020 | | | | | | | | | | | |
| New | | | | Annual Demand | | | | | | | |
| Alt to Supply | | | | Annual Demand | | | | | | | |
| Meter Upgrade | | | | Annual Demand | | | | | | | |
| Meter Repl Failure (Type 6) | | | | Annual Demand | | | | | | | |
| Total Large HV Bus | 231 | 100.0% | 22.8% | | | | | | | | |
| Major Business | | | | | | | | | | | |
| ZSN | 16 | 57.1% | | ZSS | | | | | | | |
| ZST | 12 | 42.9% | | STN | | | | | | | |
| Total Major Bus | 28 | 100.0% | 10.7% | | | | | | | | |
| Total | 885,634 | | | | | | | | | | |

17.4 Tariff structures and charging parameters

In this subsection we have set out how we have developed a proposed tariff structure for the 2020-25 RCP for the five tariff classes:

- Residential
- Small business
- Large business - low voltage
- Large business - high voltage
- Large business - major business

By number, the largest customer groups are the residential and small business classes. The residential customers within this group have daily load profiles influenced by the increasing effects of solar. Over 80% of residential and small business customers still use older accumulation meters (type 6), which limits the development and take-up of cost-reflective tariffs. However, the changes in metering that are likely to occur with the ~~introduction of the~~ 'Power of Choice' metering reforms mean that the population of type 4 meters will increase to 50% by the end of the 2020-25 RCP.

There are several factors that we need to respond to in the development of tariffs for the residential and small business classes for the 2020-25 RCP. These factors have been outlined in detail in our TSS Part B explanatory statement. We have responded to these factors and developed a proposed small customer tariff structure which is simple, more cost-reflective and easy to understand. It empowers the customer to make choices if they wish and to change the way they use power when they can.

The tariff reforms are available to all customers. There are limitations in the tariffs available to some customers due to their type 6 metering. These customers can request their retailer to change the meter to a new type 4 meter and access alternative proposed tariff structures set out in this statement if they choose to do so. So, the tariff reforms are not exclusive and are effectively available to all customers through the retail tariff options that retailers are expected to offer in response to these network tariff reforms at their request.

The proposed tariffs set out in this subsection will be applied to the following classes of customer (residential and business) depending on the metering technology available to them.

- Customers with type 6 – an accumulation meter, read by SA Power Networks (typically quarterly).
- Customers with type 5 – an interval meter, read by SA Power Networks (typically quarterly).
- Customers with type 4 – an interval meter, read remotely by the retailer's meter data agent.

Tariffs for use with type 6 meters have been shaded in light orange below. Tariffs shaded in blue represent special customer tariffs for Large LV and HV customers requiring backup or generation supply that involve alternative control services.

A connection (NMI) should not comprise a mix of metering types.

17.4.1 Residential Tariffs

Table 17A-2: Residential tariff structures and charging parameters

| Network tariff | Status/ metering | Components | Measurement | Charging parameter |
|--|---|-------------------------|-------------------------------|---|
| Residential Single rate | Closed Accumulation meter (Type 6) | Fixed | \$/customer/day | Fixed supply charge per annum |
| | | Usage | \$/kWh | Single block usage charge |
| | | Controlled load | \$/kWh | Usage-based companion tariff (see below) |
| Residential Time of Use (ToU) | Default Interval meter, either: remotely read (Type 4); or - manually read (Type 5) | Fixed | \$/customer/day | Fixed supply charge per annum |
| | | Usage – Peak | \$/kWh | Peak Pricing for the 14 hours per day not captured in the off-peak/solar sponge windows at 125% of the single rate price |
| | | Usage – Off-peak | \$/kWh | Five-hour off-peak block every day: 1:00am to 6:00am (local time) at 50% of the single rate price |
| | | Usage – Solar Sponge | \$/kWh | Five-hour off-peak block every day: 10:00am to 3:00pm (local time) at 25% of the single rate price |
| | | Controlled load | \$/kWh | Usage-based companion tariff (see below) |
| Residential Prosumer <i>(Supply Charge 25%, Usage Charges 37.5% and peak demand 37.5%)</i> | Opt-in Remotely read interval meter (Type 4) | Fixed | \$/customer/day | Fixed supply charge per annum |
| | | Usage – Peak | \$/kWh | Peak Pricing for the 14 hours per day not captured in the off-peak/solar sponge windows at 71 25% of the single rate price* |
| | | Usage – Off-peak | \$/kWh | Five-hour off-peak block every day: 1:00am to 6:00am (local time) at 35 0% of the single rate price* |
| | | Usage – Solar Sponge | \$/kWh | Five-hour off-peak block every day: 10:00am to 3:00pm (local time) at 12 5% of the single rate price* |
| | | Demand – Summer | \$/kW/month Nov-March only | Monthly demand charge based on maximum kW demand measured: <ul style="list-style-type: none"> Highest daily average demand over a four-hour period November to March. Between 17:00-21:00hrs local time |
| | | Controlled load | \$/kWh | Usage-based companion tariff (see below) |

*Usage rates for the Residential Prosumer tariff are set at 60% of the equivalent usage rate for the Residential ToU tariff

17.4.2 Off-peak controlled load (OPCL) tariffs

Table 17A-3: Controlled load tariffs ~~proposed~~*

| Network tariff | Status/ metering | Components | Measurement | Charging parameter |
|--|--|-------------------------|-------------|--|
| Companion Controlled Load (hot water) tariffs | | | | |
| Controlled load Residential and Small business | Closed** Legacy meters (Type 5, 6) | Flat rate | \$/kWh | Based on usage - time clock is managed by SA Power Networks, and typically involves supply usage between 11:00pm to 7:00am and from 10:00am to 3:00pm. Priced at 50% of the single-rate prices |
| Controlled load Residential and Small business | Default Interval meter (Type 4) | Usage – Peak | \$/kWh | Peak Pricing for the 14-13 hours per day not captured in the off-peak/solar sponge windows at 125% of the single rate price |
| | | Usage – Off-peak | \$/kWh | Based on usage from 11:30pm to 6:30am (Central Standard Time) with randomised start time of at least one hour. At 50% of the single rate price |
| | | Usage – Solar Sponge | \$/kWh | Based on usage from 9:30pm-30am to 3:30am-30pm (Central Standard Time) with randomised start time of at least one hour. At 25% of the single rate price |

* For Type 4 meters, the time clock is managed through the meter by the retailer and the metering coordinator. For Type 5 meters, the time clock is adjusted manually by SA Power Networks.

** Some customers may currently have a type 6 meter for general supply and type 5 or 6 meter for OPCL. Where the customer’s general supply meter is upgraded to type 4, we expect the customer’s OPCL type 5 or 6 meter would also need to be replaced and upgraded. In this instance, the customer would be reassigned from the OPCL legacy meter tariff to the default CL-TOU type 4 meter type tariff.

17.4.3 Small business tariffs

Table 17A-4: Small business tariff structures and charging parameters (<160MWh pa)

| Network tariff | Status/ metering | Components | Measurement | Charging parameter |
|---|---|-----------------------------|--------------------------------|--|
| Small business Single rate | Closed Accumulation meter (Type 6) | Fixed | \$/customer/day | Fixed supply charge per annum |
| | | Usage | \$/kWh | Anytime based on usage |
| | | Controlled load | \$/kWh | Usage-based companion tariff (see above) |
| Small business two-rate | Closed Two-rate capability Accumulation meter (Type 6) | Fixed | \$/customer/day | Fixed supply charge per annum |
| | | Usage – Peak | \$/kWh | 7:00am to 9:00pm five days a week (Monday to Friday) or possibly all days of the week |
| | | Usage – Off-peak | \$/kWh | All times not picked up in peak usage |
| Small business Time of Use (ToU) | Default <120kVA Interval meter, either: remotely read (Type 4); or - manually read (Type 5) | Fixed | \$/customer/day | Fixed supply charge per annum |
| | | Usage – Peak | \$/kWh | 5:00pm to 9:00pm local time on all days during November through March |
| | | Usage - shoulder | \$/kWh | 7:00am to 5:00pm workdays November to March, and 7:00am to 9:00pm April to October |
| Small business Time of Use (ToU) + Maximum Demand >120kVA | Default >120kVA Opt-in <120kVA Interval meter, either: remotely read (Type 4); or - manually read (Type 5) | Fixed | \$/customer/day | Fixed supply charge per annum |
| | | Usage – Peak | \$/kWh | 5:00pm to 9:00pm local time on all days during November through March, at 80% of TOU price |
| | | Usage - shoulder | \$/kWh | 7:00am to 5:00pm workdays November to March, and 7:00am to 9:00pm April to October, at 80% of TOU price |
| | | Usage – Off-peak | \$/kWh | All times not picked up in peak or shoulder usage, at 80% of TOU price |
| Small business Actual kVA demand - Transition | Closed Interval meter (Type 4) | Demand- annual | \$/kVA/pa All year | Anytime Maximum demand charge based on highest half-hour demand during the last 12 months. |
| | | Fixed | \$/customer/day | Fixed supply charge per annum |
| | | Usage | \$/kWh | Anytime based on usage |
| | | Demand – Peak Actual | \$/kVA/month Nov-March only | Maximum demand charge based on actual monthly maximum kVA demand measured: <ul style="list-style-type: none"> Over a 30-minute time period; and 16:00 to 21:00hrs local time, workdays, Nov-March (Peak). |
| | | Demand – Shoulder Actual | \$/kVA/month All year | Maximum demand charge based on actual monthly maximum kVA demand measured: <ul style="list-style-type: none"> Over a 30-minute time period; and 12:00 to 16:00hrs local time, workdays, 12 months (Shoulder) |

17.4.4 Large Business Tariffs (LV and HV tariff classes)

Table 17A-5: Large business tariff structures and charging parameters (>160MWh pa)

| Network tariff | Status/ metering | Components | Measurement | Charging parameter |
|--|--|-----------------------------|--------------------------------|---|
| Large LV business Single rate | Closed Accumulation meter (Type 6) | Fixed | \$/customer/day | Fixed supply charge per annum |
| | | Usage | \$/kWh | Anytime based on usage at 120% of small business prices <u>single rate</u> |
| | | Controlled load | \$/kWh | Usage-based companion tariff (see above) |
| Large LV business two-rate | Closed Two-rate capability Accumulation meter (Type 6) | Fixed | \$/customer/day | Fixed supply charge per annum |
| | | Usage – Peak | \$/kWh | 7:00am to 9:00pm five days a week (Monday to Friday) or possibly all days of the week at 120% of small business prices <u>two-rate peak</u> |
| | | Usage – Off-peak | \$/kWh | All times not picked up in peak usage at 120% of small business prices <u>two-rate off-peak</u> |
| | | Controlled Load | \$/kWh | Usage-based companion tariff (see above) |
| Large LV business Annual demand | Default Interval meter (Type 4) | Fixed | \$/customer/day | Fixed supply charge per annum |
| | | Usage – Peak | \$/kWh | 7:00am to 9:00pm workdays (Monday to Friday) plus 5:00pm – 9:00pm non-workdays (November to March non-CBD only). |
| HV Business Annual demand | | Usage – Off-peak | \$/kWh | At all other times not picked up in peak window |
| | | Demand – Peak Annual | \$/kVA/pa | Demand charge based on the highest daily average maximum demand on workdays only from November through March. <ul style="list-style-type: none"> • CBD 11:00am-5:00pm <u>workdays only</u> • Non-CBD 5:00pm-9:00pm <u>all days</u> |
| <u>HV Business Annual <500 kVA</u> | | Demand – Anytime actual | \$/kVA/pa | Anytime demand charged on the highest half-hour demand during the year. |
| Large LV business Monthly demand | Opt-in Interval meter (Type 4) | Fixed | \$/customer/day | Fixed supply charge per annum |
| | | Usage – Peak | \$/kWh | 7:00am to 9:00pm workdays. |
| HV Business Monthly demand | | Usage – Off-peak | \$/kWh | At all other times not picked up in peak window |
| | | Demand – Peak actual | \$/kVA/month Nov-March only | Demand charge based on the highest daily average maximum demand for the month from November through March, at 150% of Annual price. <ul style="list-style-type: none"> • CBD 11:00am-5:00pm workdays only • Non-CBD 5:00pm-9:00pm all days |
| | | Demand – Anytime actual | \$/kVA/pa | Anytime demand charged on the highest half-hour demand during the last 12 months. |
| Large LV business Actual demand – Transition | Closed Interval meter (Type 4) | Fixed | \$/customer/day | Fixed supply charge per annum |
| | | Usage | \$/kWh | Anytime based on usage |
| | | Demand – Peak Actual | \$/kVA/month Nov-March only | Maximum demand charge based on actual monthly maximum kVA demand measured: <ul style="list-style-type: none"> • Over a 30-minute time period; and • 4:00pm to 9:00pm, workdays, Nov-March. |
| HV Business Actual demand - Transition | | Demand – Shoulder Actual | \$/kVA/month All year | Maximum demand charge based on actual monthly maximum kVA demand measured: <ul style="list-style-type: none"> • Over a 30-minute time period; and • 12:00 noon to 4:00pm workdays, 12 months |
| | | | | |
| Large LV business Back-up | Special tariff Interval meter (Type 4) | Fixed | \$/customer/day | Fixed supply charge per annum |
| | | Usage – Peak | \$/kWh | 7:00am to 9:00pm workdays. |
| HV business Back-up | | Usage – Off-peak | \$/kWh | At all other times not picked up in peak window |
| | | Demand – Peak Annual | \$/kVA/pa | Not charged, incurred by the parent NMI |
| | | Demand – Anytime actual | \$/kVA/pa | Anytime demand charged on the higher of the back-up requested and the highest half-hour demand during the year. |

| Network tariff | Status/ metering | Components | Measurement | Charging parameter |
|---|--|----------------------------|-----------------|--|
| Large LV business Generation Supplies | Special tariff Interval meter (Type 4) | Fixed | \$/customer/day | Fixed supply charge per annum (applies to LV, not to HV supplies) |
| | | Usage – Peak | \$/kWh | Not applied to Generation supplies. |
| HV business Generation Supplies | | Usage – Off-peak | \$/kWh | Not applied to Generation supplies |
| | | Demand – Peak Annual | \$/kVA/pa | Demand charge based on the agreed firm supply requirements of the generator on extreme summer days. <ul style="list-style-type: none"> • CBD 11:00am-5:00pm workdays only • Non-CBD 5:00pm-9:00pm all days |
| | | Demand – Anytime actual | \$/kVA/pa | Anytime demand charged on the agreed or highest half-hour demand during the last 12 months. |

Table 17A-6: Major business tariff structures and charging parameters

| Network tariff | Status | Components | Measurement | Charging parameter |
|------------------------------------|--|----------------------------|-----------------|---|
| Zone Substation Non-Locational | <i>Tariff amended for individual customers</i> | Fixed | \$/customer/day | Fixed supply charge per annum |
| | | Usage | \$/kWh | Anytime based on usage |
| | | Demand – Peak Agreed | \$/kVA pa | Agreed half-hour maximum demand during peak times, for pricing of transmission |
| | | Demand – Anytime Actual | \$/kVA pa | Anytime demand charged on the agreed or highest half-hour demand during the last 12 months. |
| Sub-Transmission Non-Locational | <i>Tariff amended for individual customers</i> | Fixed | \$/customer/day | Fixed supply charge per annum |
| | | Usage | \$/kWh | Anytime based on usage |
| | | Demand – Peak agreed | \$/kVA pa | Agreed half-hour maximum demand during peak times, for pricing of transmission |
| | | Demand – Anytime Actual | \$/kVA pa | Anytime demand charged on the agreed or highest half-hour demand during the last 12 months. |

17.5 Approach to setting tariffs

The Rules⁹ specify that SA Power Networks' TSS must comply with the pricing principles for direct control services. The network pricing objective as specified within the Rules¹⁰, requires that our tariff charges should reflect our efficient costs of providing these services to customers using these tariffs. The efficient costs of a distributor are determined by the AER during the five-year regulatory reset process.

Our TSS demonstrates how SA Power Networks' network tariffs for the 2020-25 RCP will comply with the requirements of the Rules and the AER's final decision for the 2020-25 RCP in respect of the side constraints and pricing principles. For more information on the consideration that SA Power Networks applied when setting tariffs for the 2020-25 RCP, see the associated detail in our TSS Part B Explanatory statement.

17.5.1 Side constraints

In respect of pricing side constraints, SA Power Networks under the Rules¹¹ is limited to the annual movement of revenue recovery between tariff classes. The AER's Final Decision¹² sets out the pricing side constraints as they apply to SA Power Networks in the 2020 to 2025 regulatory period.

In the interest of simplicity, SA Power Networks has decided to introduce further constraints stating aAny tariff class cannot face increases that are more than 2% higher than the average increase for all tariffs. The side constraint applies to Distribution Use of System (**DUoS**) only and/or the tariff class as a whole, and not to individual tariffs, tariff elements nor individual customer outcomes.

Compliance with this side constraint is a matter for our Annual Pricing Proposals and is not discussed in detail in this TSS. We will ensure that the annual increase of each tariff class, average DUoS price (c/kWh) is not more than 102% of the average DUoS price increase overall.

Section 17.5.6~~0~~ looks at our approach applied to unforeseen changes when preparing our annual pricing proposal. This approach may require different rates of price changes in different tariff classes. The side constraints will apply where any increase to a tariff class is greater than 2% above the average price change, resulting in price changes for that tariff class over multiple years. Unless unforeseen changes require a different tariff increase to the average, the tariff constraint should not bind during the 2020-25 RCP.

17.5.2 Stand-alone and avoidable costs

The Rules¹³ require SA Power Networks to ensure that the revenue recovered for each tariff class lies between:

- an upper bound, representing the stand-alone cost of serving the retail customers who belong to that class; and
- a lower bound, representing the avoidable cost of not serving those retail customers.

Therefore, the stand-alone and avoidable costs for a tariff class must be set between the costs necessary to only supply that tariff class (ie.i.e. a standalone price) and the costs that could be avoided if that tariff class were not supplied at all. This ensures that tariffs cannot be set below the incremental cost to supply these customers and do not exceed the cost of only supplying these customers. These approaches are used to

⁹ NER, clause 6.18.1A(b)

¹⁰ NER, clause 6.18.5(a)

¹¹ NER, clause 6.18.6

¹² AER, Final Decision Attachment 13 Control Mechanisms, May 2020

¹³ NER, clause 6.18.5(e)

calculate the revenues for each standard control services tariff class. The costs are compared with the weighted average revenue derived from SA Power Networks’ proposed tariffs.

Our TSS Part B Explanatory statement, contains a breakdown of the revenue expected to be recovered from each of SA Power Networks’ tariff classes in 2020/21 compared with the stand-alone and avoidable costs.

17.5.3 Long-run marginal costs

The consideration of Long Run Marginal Cost (**LRMC**) applies where price signalling charging parameters (peak period energy and demand related components) form part of a tariff. SA Power Networks aims to ensure that where price signals are varied, they are moved in such a direction as to improve alignment with the LRMC. Charging components that materially over-recover or under-recover the LRMC would not pass on an efficient pricing signal to customers that represents their cost of utilising the network.

In this TSS we have applied the average incremental cost (**AIC**) approach to determine the network LRMC for our tariff classes. The calculations for this approach have been carried out at the following voltage and voltage transformation levels of the network:

- Sub-transmission (33 kV and 66 kV)
- Zone Substation (11 kV busbar)
- HV Feeder (11 kV system connected)
- Distribution Substation (Low Voltage, connected at the substation busbar)

We have not included any LRMC calculation for LV Feeder in this Revised Proposal as any such cost, likely to occur, will be driven by an individual customer increasing demand from that able to be supplied from a shared LV line/transformer to that requiring a dedicated distribution transformer. Such costs are managed through the connection process, not through medium to long-term tariff signals. This is a simplification in our LRMC approach from that in our Original Proposal model.

The marginal cost at each network voltage level has been determined using the following relationship:

$$LRMC(AIC) = \frac{PV(\text{Growth Related capex}) + PV(\text{Growth Related opex})}{PV(\text{incremental demand})}$$

Where:

- *growth related capex* is the annualised capital expenditure to meet the additional demand over the forecast period;
- *growth related opex* is the incremental annual cost of operating and maintaining the newly constructed network assets over the forecast period;
- *incremental demand* is the forecast change in kVA demand compared with the base year; and
- *PV* stands for the present value of that calculation.

We have measured incremental demand for the 45% of our network with growth. We have excluded the 55% of our network that has declining growth. The LRMC signal is applied to the total network. The LRMC of our distribution network (\$/kVA pa) is included in Table 17A-7.

Table 17A-7: LRMC of our distribution network (\$/kVA pa)

| Tariff Class | Step | Total |
|---------------------|-------------|--------------|
| Sub-Transmission | \$ 14.6 | \$ 14.6 |
| Zone Substation | \$ 22.7 | \$ 37.4 |
| HV Feeder | \$ 13.3 | \$ 50.7 |
| LV Transformer | \$ 11.7 | \$ 62.4 |

The way in which the LRMC and the balance of efficient costs has been taken into account by SA Power Networks in establishing the 2020-25 tariffs has involved the following considerations:

- **Ensuring that demand price signalling components reasonably signal the LRMC:** For large business, our peak demand DUoS charges reflect the LRMC of the network upstream of the connection voltage. An anytime demand charge is also applied which targets the connection voltage assets
- **Use of price signalling components where practicable:** In type 6 metering situations where demand cannot be effectively signalled, energy rates have been structured to ensure that efficient costs are recovered. However, the metering does not indicate usage during high consumption periods, so we have retained relatively simple tariff structures which recover the efficient costs for that tariff's assigned customers.
- **Revenue recovery through non-distortionary charging parameters:** For cost-reflective tariffs, demand charging parameters recover a proportion of the total revenue reflecting high network utilisation period future costs. The balance of revenue recovery takes place in the least distortionary manner possible, through fixed supply charges for the efficient costs of local assets and customer service with the balance recovered through energy usage rates. Lower rates apply to usage that is outside of high network utilisation periods for off peak periods (two-rate tariffs) and controlled load.

17.5.4 Our approach to revenue cost allocation across tariff classes

Distribution revenue is allocated across the tariff classes (and the tariffs) according to the usage by customers of the various voltage steps (represented by asset categories) involved. The efficient costs are apportioned across these asset categories, with customers' use of these assets determined by the customers' diversified demand and usage. Some assets are apportioned according to customer numbers e.g.g. the connection services and a portion of the asset LV Lines reflecting house frontage needs. Customers are only charged for an asset category if they use it.

We allocate 50% of asset charges to demand as we have found that these amounts broadly reflect the LRMC of these assets. Note that we price the actual tariffs using the actual LRMC calculation, not the 50% cost allocation. The balance of asset charges is allocated in a non-distortionary manner using energy, apart from those costs which are driven principally by numbers of customers. If we need to consider pricing for a potentially constrained network, we will look at other variations to this for those specific locations and consider an 'opt-in' tariff/rebate. The variation might have a stronger demand signal reflecting the local LRMC. Customers would retain the right to access State-wide prices despite the constraint.

Table 17A-8 below outlines how SA Power Networks allocates the revenue across tariff classes. This ensures that tariffs reflect the efficient costs incurred in supplying customers using those tariffs.

Table 17A-8: 2020/21 Revenue cost allocation across network elements and to tariff classes

| Allocation basis to tariff class | Tariff Classes | | | | |
|---|--|--------------------------------|-------------------|--------------------------|-------------|
| | Major business | High Voltage business | Large LV business | Small business | Residential |
| Number of Customers (NMI's) | 0.00% | 0.02% | 0.54% | 10.769% | 88.875% |
| Diversified Demand (MVA) | 4.34% | 5.33% | 24.42% | 18.434% | 47.659% |
| Usage GWh (at Pool Exit) | 10.548% | 7.64% | 29.08.95% | 15.441% | 3637.852% |
| Distribution (SA Power Networks) | | | | | |
| Sub-transmission lines | 8.0% allocated half demand and half usage | | | | |
| Zone substations | 17.5% allocated half demand and half usage | | | | |
| High Voltage Lines | 33.3% allocated half demand and half usage | | | | |
| Distribution transformers | 17.0% allocated half demand and half usage | | | | |
| Low voltage Lines | 15.0% to NMI/demand/usage | | | | |
| Services, GSLs | 65.5% NMIs only | | | | |
| Customer related | 3.8% customer related | | | | |
| PV FIT Recovery (SA Government Scheme) | | | | | |
| PV FIT Recovery | 37% Allocated on DUoS proportion | | | | 63% |
| Transmission (ElectraNet) | | | | | |
| Transmission exit | 10.0% peak demand allocation | | | | |
| Transmission locational | 65.8% locational price pass through | 2231.7% peak demand allocation | | | |
| Transmission Non-locational | | 2919.8% Demand | | 32.7% allocated on usage | |
| Transmission Common Service | | | | | |

The transmission locational prices (exit and locational) are allocated on the basis of tariff class diversified demand. For the transmission non-locational and common service charges:

- Locational customers have an individually calculated allocation that provides the lowest price.
- Large LV business and HV business have an allocation based on their diversified KW demand as this provides the low price.
- Small business and residential are allocated the balance of these charges on a per MWh basis. This should be at a lower price than the ElectraNet published price adjusted for losses.

This arrangement ensures a reasonable pass through of the ElectraNet price structure and equitable outcomes.

17.5.5 Setting supply charges for individually calculated tariffs (Major business customers)

We will apply individually calculated tariffs for those major businesses that qualify for a locational transmission price. This price will be a direct pass through of the ElectraNet price schedule where possible, with a reasonable allocation of exit charges to the customer.

Where large customers have unique distribution supply arrangements and/or an ability to bypass some components of the network at a lower price, we will include an individually calculated distribution price component for the bypass/supply element and the standard distribution tariff beyond that point. Where possible, the calculation will use published network prices. Historical agreements escalated by Consumer Price Index (CPI) that pre-date these arrangements will continue to apply through the 2020-25 RCP.

17.5.6 Approach applied to unforeseen changes when preparing the Annual Pricing Proposal

Prices for our 2020-25 RCP have been set based on known 2018/19 outcomes for each tariff class, customer numbers, demands and usage applied to the allocation matrix (Table 17A-8).

SA Power Networks will review subsequent years' outcomes, particularly when extreme summers (greater than 50% POE) have impacted all tariff classes. The resulting revenue cost allocations will be used as target tariff recoveries for each tariff class, which will reflect any unforeseen changes in the sales mix across the tariff classes. For example; if the take-up of PV and batteries affects one tariff class more so than the others, this allocation will result in a proportional adjustment to the tariffs within that tariff class.

As discussed above, SA Power Networks' implementation of the side constraint of average price change of greater than 2% could apply if extreme changes occur. In this situation, tariff re-balancing between tariff classes will occur in consecutive years.

17.5.7 Pricing relativity to be retained through the 2020-25 RCP

Certain price relativities have been established in this TSS for tariffs within a tariff class. These relativities ensure that any price changes over the 2020-25 RCP affect all tariff prices equally. This ensures equity between those customers on type 6 and type 4 meters, and between those customers who remain on default tariffs and those on opt-in tariffs. Network prices have not been biased to favour one tariff over another, although the opt-in tariffs will be preferable for a cohort of customers.

These pricing relativities apply to the transmission, the SA Government's PV FIT scheme and distribution components. The cost pass-through of the SA Government's PV FIT scheme has a single price for each tariff class comprising either supply charge plus usage (residential and small business), or usage charge only (large business tariff classes). Rounding may lead to marginal differences between these commitments and the numbers in the annual pricing proposals but these will remain less than 0.5%.

- **Residential:**
 - Residential supply charge (NUoS) increase by \$10 pa
 - ToU peak is 125% of single-rate, as is OPCL-ToU
 - ToU off-peak is 50% of single rate, as is OPCL-ToU
 - ToU solar sponge is 25% of single rate, as is OPCL-ToU
 - Prosumer tariff usage rates are 60% of ToU rates
 - Prosumer tariff distribution demand charge kW pa is equal to 840kWh of distribution single rate. Price is charged on five individual months (November to March).
- **Small business:**
 - Small business supply charge (NUoS) increase by \$20 pa
 - Single rate equals two-rate with 77.5% peak usage
 - Two-rate peak is 112.7% of single rate
 - Two-rate off-peak is 50% of peak and 56.3% of single rate
 - ToU peak is 150% of single rate
 - ToU shoulder is 104.4% of single rate
 - ToU off-peak is 56.4% of single rate
 - ToU+MD usage rates are 80% of ToU
 - ToU+MD distribution demand charge kVA/day is equal to 283.7 kWh of distribution ToU peak rate
 - Unmetered supply usage is 65.4% (DUoS) and 68.7% (TUoS) of single rate
- **Small business, large LV business and HV business actual demand (transition):**
 - Supply charges increase by \$1000 pa post 2020/21

- Demand charges remain at 2019/20 levels
- Usage charges increase by \$0.010/kWh pa post 2020/21
- **Large LV type-6 meter tariffs:**
 - Supply charges as per small business type-6 meter tariff
 - Usage charges 120% of small business type-6 meter charges
- **Large LV and HV business annual demand:**
 - Peak usage charge is 1.6 times off-peak usage
- **Large LV and HV business monthly demand:**
 - Peak annual monthly demand is 1.5 times the peak annual maximum demand price
 - All other rates are per large business annual demand

Appendix A. Compliance checklist

The development and revision of this TSS for the 2020-25 RCP is governed by Chapter 6 of the Rules. The compliance statement shown in Table 17A-9 has been prepared with reference to Version 128 of the Rules (1 December 2019). For context, we have set out the requirements for a 'tariff structure statement' (as defined in the Rules) and a revised proposed tariff structure statement.

Table 17A-9: Compliance with the NER

| Rule Provision | Rule Requirement | Relevant Section |
|--|---|--------------------------|
| PART E: Proposed tariff structure statement | | |
| 6.8.2 | Submission of regulatory proposal and tariff structure statement | |
| 6.8.2(a) | A <i>Distribution Network Service Provider</i> must, whenever required to do so under paragraph (b), submit to the AER a proposed <i>tariff structure statement</i> related to the <i>distribution services</i> provided by means of, or in connection with, the <i>Distribution Network Service Provider's distribution system</i> . | Noted |
| 6.8.2(c)(7) | A regulatory proposal must include a description (with supporting materials) of how the proposed <i>tariff structure statement</i> complies with the <i>pricing principles for direct control services</i> , including: | TSS Part A |
| 6.8.2(c1) | | |
| 6.8.2(c2) | | |
| 6.8.2(d) | <ul style="list-style-type: none"> a description of where there has been any departure from the pricing principles set out in paragraphs 6.18.5 (e) to (g); and an explanation of how that departure complies with clause 6.18.5(c). | |
| 6.8.2(d1) | The proposed <i>tariff structure statement</i> must be accompanied by an <i>indicative pricing schedule</i> . | TSS Part A Appendix B |
| 6.8.2(d2) | The proposed <i>tariff structure statement</i> must comply with the <i>pricing principles for direct control services</i> . | TSS Part A |
| PART E: Proposed tariff structure statement | | |
| 6.10.3 | Submission of revised proposal | |
| 6.10.3(b1) | A revised proposed <i>tariff structure statement</i> must comply with the <i>pricing principles for direct control services</i> . | TSS Part A Appendix B |
| 6.10.3(b1) | A revised proposed <i>tariff structure statement</i> must be accompanied by an <i>indicative pricing schedule</i> . | TSS Part A |
| PART I: Distribution pricing rules | | |
| 6.18.1A | Tariff structure statement | |
| 6.18.1A(a) | A <i>tariff structure statement</i> of a <i>Distribution Network Service Provider</i> must include the following elements: | |
| 6.18.1A(a)(1) | the <i>tariff classes</i> into which <i>retail customers for direct control services</i> will be divided during the relevant <i>regulatory control period</i> ; | TSS Part A 17.2.1 |
| 6.18.1A(a)(2) | the policies and procedures the <i>Distribution Network Service Provider</i> will apply for assigning <i>retail customers</i> to tariffs or reassigning <i>retail customers</i> from one tariff to another (including any applicable restrictions); | TSS Part A 17.2.1 |
| 6.18.1A(a)(3) | the structures for each proposed tariff; | TSS Part A 17.4 |
| 6.18.1A(a)(4) | the <i>charging parameters</i> for each proposed tariff; and | TSS Part A 17.4 |
| 6.18.1A(a)(5) | a description of the approach that the <i>Distribution Network Service Provider</i> will take in setting each tariff in each pricing proposal of the <i>Distribution Network Service Provider</i> during the relevant <i>regulatory control period</i> in accordance with clause 6.18.5. | TSS Part A 17.5 |
| 6.18.1A(b) | A <i>tariff structure statement</i> must comply with the <i>pricing principles for direct control services</i> . | TSS Part A |

| Rule Provision | Rule Requirement | Relevant Section |
|----------------|---|---------------------------|
| 6.18.1A(c) | A <i>Distribution Network Service Provider</i> must comply with the <i>tariff structure statement</i> approved by the AER and any other applicable requirements in the <i>Rules</i> , when the provider is setting the prices that may be charged for <i>direct control services</i> . | Noted |
| 6.18.1A(d) | Subject to clause 6.18.1B, a <i>tariff structure statement</i> may not be amended during a <i>regulatory control period</i> . Note: Rule 6.13 still applies in relation to a <i>tariff structure statement</i> because that rule deals with the revocation and substitution of a distribution determination (which includes a <i>tariff structure statement</i>) as opposed to its amendment. | Noted |
| 6.18.1A(e) | A tariff structure statement must be accompanied by an <i>indicative pricing schedule</i> which sets out, for each tariff for each <i>regulatory year</i> of the <i>regulatory control period</i> , the indicative price levels determined in accordance with the <i>tariff structure statement</i> . | TSS PART A Appendix B |
| 6.18.3 | Tariff classes | |
| 6.18.3(b) | Each <i>retail customer</i> for <i>direct control services</i> must be a member of 1 or more <i>tariff classes</i> . | TSS PART A 17.4 & 17.5 |
| 6.18.3(c) | Separate <i>tariff classes</i> must be constituted for <i>retail customers</i> to whom <i>standard control services</i> are supplied and <i>retail customers</i> to whom <i>alternative control services</i> are supplied (but a <i>retail customer</i> for both <i>standard control services</i> and <i>alternative control services</i> may be a member of 2 or more <i>tariff classes</i>). | TSS PART A 17.4 & 17.5 |
| 6.18.3(d) | A <i>tariff class</i> must be constituted with regard to: | |
| 6.18.3(d)(1) | the need to group <i>retail customers</i> together on an economically efficient basis; and | TSS PART A 17.4 & 17.5 |
| 6.18.3(d)(2) | the need to avoid unnecessary transaction costs. | TSS PART A 17.4 & 17.5 |
| 6.18.4 | Principles governing assignment or re-assignment of retail customers to tariff classes and assessment and review of basis of charging | |
| 6.18.4(a) | In formulating provisions of a distribution determination governing the assignment of <i>retail customers</i> to <i>tariff classes</i> or the re-assignment of <i>retail customers</i> from one <i>tariff class</i> to another, the AER must have regard to the following principles: | Noted |
| 6.18.4(a)(1) | <i>retail customers</i> should be assigned to <i>tariff classes</i> on the basis of one or more of the following factors: (i) the nature and extent of their usage; (ii) the nature of their <i>connection</i> to the <i>network</i> ; (iii) whether remotely read interval metering or other similar metering technology has been installed at the <i>retail customer's</i> premises as a result of a <i>regulatory obligation or requirement</i> ; | TSS PART A 17.2.2 |
| 6.18.4(a)(2) | <i>retail customers</i> with a similar <i>connection</i> and usage profile should be treated on an equal basis; | TSS PART A 17.2.2 |
| 6.18.4(a)(3) | however, <i>retail customers</i> with micro-generation facilities should be treated no less favourably than <i>retail customers</i> without such facilities but with a similar load profile; | TSS PART A 17.2.2 |
| 6.18.4(a)(4) | a <i>Distribution Network Service Provider's</i> decision to assign a customer to a particular <i>tariff class</i> , or to re-assign a customer from one <i>tariff class</i> to another should be subject to an effective system of assessment and review. | TSS PART A 17.2.2 |
| 6.18.4(b) | If the <i>charging parameters</i> for a particular tariff result in a basis of charge that varies according to the usage or load profile of the customer, a distribution determination must contain provisions for an effective system of assessment and review of the basis on which a customer is charged. | Noted |

| Rule Provision | Rule Requirement | Relevant Section |
|--|--|--------------------|
| 6.18.5 | Pricing Principles | |
| Network pricing objective | | |
| 6.18.5(a) | The <i>network pricing objective</i> is that the tariffs that a <i>Distribution Network Service Provider</i> charges in respect of its provision of <i>direct control services</i> to a <i>retail customer</i> should reflect the <i>Distribution Network Service Provider's</i> efficient costs of providing those services to the <i>retail customer</i> . | Noted |
| Application of the pricing principles | | |
| 6.18.5(b) | Subject to paragraph (c), a <i>Distribution Network Service Provider's</i> tariffs must comply with the pricing principles set out in paragraphs (e) to (j). | Noted |
| 6.18.5(c) | A <i>Distribution Network Service Provider's</i> tariffs may vary from tariffs which would result from complying with the pricing principles set out in paragraphs (e) to (g) only: | Noted |
| 6.18.5(c)(1) | to the extent permitted under paragraph (h); and | Noted |
| 6.18.5(c)(2) | to the extent necessary to give effect to the pricing principles set out in paragraphs (i) to (j). | Noted |
| 6.18.5(d) | A <i>Distribution Network Service Provider</i> must comply with paragraph (b) in a manner that will contribute to the achievement of the <i>network pricing objective</i> . | Noted |
| Pricing principles | | |
| 6.18.5(e) | For each <i>tariff class</i> , the revenue expected to be recovered must lie on or between: | |
| 6.18.5(e)(1) | an upper bound representing the stand-alone cost of serving the <i>retail customers</i> who belong to that class; and | TSS PART A 17.5 |
| 6.18.5(e)(2) | a lower bound representing the avoidable cost of not serving those <i>retail customers</i> . | TSS PART A 17.5 |
| 6.18.5(f) | Each tariff must be based on the <i>long run marginal cost</i> of providing the service to which it relates to the <i>retail customers</i> assigned to that tariff with the method of calculating such cost and the manner in which that method is applied to be determined having regard to: | |
| 6.18.5(f)(1) | the costs and benefits associated with calculating, implementing and applying that method as proposed; | TSS PART A 17.5 |
| 6.18.5(f)(2) | the additional costs likely to be associated with meeting demand from <i>retail customers</i> that are assigned to that tariff at times of greatest utilisation of the relevant part of the <i>distribution network</i> ; and | TSS PART A 17.5 |
| 6.18.5(f)(3) | the location of <i>retail customers</i> that are assigned to that tariff and the extent to which costs vary between different locations in the <i>distribution network</i> . | TSS PART A 17.5 |
| 6.18.5(g) | The revenue expected to be recovered from each tariff must: | |
| 6.18.5(g)(1) | reflect the <i>Distribution Network Service Provider's</i> total efficient costs of serving the <i>retail customers</i> that are assigned to that tariff; | TSS PART A 17.5 |
| 6.18.5(g)(2) | when summed with the revenue expected to be received from all other tariffs, permit the <i>Distribution Network Service Provider</i> to recover the expected revenue for the relevant services in accordance with the applicable distribution determination for the <i>Distribution Network Service Provider</i> ; and | TSS PART A 17.5 |
| 6.18.5(g)(3) | comply with sub-paragraphs (1) and (2) in a way that minimises distortions to the price signals for efficient usage that would result from tariffs that comply with the pricing principle set out in paragraph (f). | TSS PART A 17.5 |
| 6.18.5(h) | A <i>Distribution Network Service Provider</i> must consider the impact on <i>retail customers</i> of changes in tariffs from the previous <i>regulatory year</i> and may vary tariffs from those that comply with paragraphs (e) to (g) | |

| Rule Provision | Rule Requirement | Relevant Section |
|----------------|--|--------------------|
| | to the extent the <i>Distribution Network Service Provider</i> considers reasonably necessary having regard to: | |
| 6.18.5(h)(1) | the desirability for tariffs to comply with the pricing principles referred to in paragraphs (f) and (g), albeit after a reasonable period of transition (which may extend over more than one <i>regulatory control period</i>); | TSS PART A 17.5 |
| 6.18.5(h)(2) | the extent to which <i>retail customers</i> can choose the tariff to which they are assigned; and | TSS PART A 17.5 |
| 6.18.5(h)(3) | the extent to which <i>retail customers</i> are able to mitigate the impact of changes in tariffs through their usage decisions. | TSS PART A 17.5 |
| 6.18.5(i) | The structure of each tariff must be reasonably capable of being understood by <i>retail customers</i> that are assigned to that tariff, having regard to: | |
| 6.18.5(i)(1) | the type and nature of those <i>retail customers</i> ; and | TSS PART B |
| 6.18.5(i)(2) | the information provided to, and the consultation undertaken with, those <i>retail customers</i> . | TSS Part A 17.4 |
| 6.18.5(j) | A tariff must comply with the <i>Rules</i> and all <i>applicable regulatory instruments</i> . | Noted |
| 6.18.6 | Side constraints on tariff for standard control services | |
| 6.18.6(a) | This clause applies only to <i>tariff classes</i> related to the provision of <i>standard control services</i> . | TSS PART A 17.5 |
| 6.18.6(b) | The expected weighted average revenue to be raised from a <i>tariff class</i> for a particular <i>regulatory year</i> of a <i>regulatory control period</i> must not exceed the corresponding expected weighted average revenue for the preceding <i>regulatory year</i> in that <i>regulatory control period</i> by more than the permissible percentage. | TSS PART A 17.5 |

Appendix B. Tariff structures~~Indicative pricing schedules~~ – Standard Control Services

The indicative prices for the five years of the 2020-25 regulatory control period were included in SA Power Networks' revised regulatory proposal and will be updated and resubmitted by SA Power Networks in each annual pricing proposal.

The following charts set out which charging parameters (e.g. fixed charges; usage charges; demand charges) for which tariffs are used to recover which network cost components (DUoS costs; alternative control costs; TUoS costs; PV FiT costs).

Table 17A-10: Residential and small business indicative price structure (\$nominal)

| Residential and Small Business Indicative Prices 2020/21 to 2024/25, excl GST | | | DUoS | Alt CS | TUoS | PV FiT | NUoS |
|--|---|--|------|--------|------|--------|------|
| Residential Customers | | | | | | | |
| Residential Type 6 | Tariff Closed | | | | | | |
| Customers/Supply Ch | \$ pa | | X | | - | X | X |
| Usage | \$/kWh | | X | | X | X | X |
| Residential TOU | Default Tariff, Type 4 and 5 meters | | | | | | |
| Customers/Supply Ch | \$ pa | | X | | - | X | X |
| Peak Usage | \$/kWh | | X | | X | X | X |
| Off-Pk Usage | \$/kWh | | X | | X | X | X |
| Solar Sponge Usage | \$/kWh | | X | | X | X | X |
| Residential Prosumer | Opt-in Tariff, Type 4 meters | | | | | | |
| Customers/Supply Ch | \$ pa | | X | | - | X | X |
| Peak Usage | \$/kWh | | X | | X | X | X |
| Off-Pk Usage | \$/kWh | | X | | X | X | X |
| Solar Sponge Usage | \$/kWh | | X | | X | X | X |
| Summer Demand | 1 \$/kW/mth pa | | X | | X | X | X |
| OPCL Hot Water Type 5, 6 | Tariff Closed | | | | | | |
| Usage | \$/kWh | | X | | X | X | X |
| OPCL Hot Water Type 4 | Default Tariff, Type 4 meters OPCL | | | | | | |
| Peak Usage | \$/kWh | | X | | X | X | X |
| Off-Pk Usage | \$/kWh | | X | | X | X | X |
| Solar Sponge Usage | \$/kWh | | X | | X | X | X |
| Small Business Customers | | | | | | | |
| Business Unmetered Supply | Default Tariff Type 7 meters | | | | | | |
| Usage | \$/kWh | | X | | X | X | X |
| Business Single Type 6 | Tariff Closed | | | | | | |
| Customers/Supply Ch | \$ pa | | X | | - | X | X |
| Usage | \$/kWh | | X | | X | X | X |
| Business 2-Rate Type 6 | Tariff Closed | | | | | | |
| Customers/Supply Ch | \$ pa | | X | | - | X | X |
| Peak usage | \$/kWh | | X | | X | X | X |
| Off-Pk Usage | \$/kWh | | X | | X | X | X |
| Business TOU Type 4, 5 | Default Tariff <120 kVA demand (incl all Whole Current meters), Type 4 and 5 meters | | | | | | |
| Customers/Supply Ch | \$ pa | | X | | - | X | X |
| Peak usage | \$/kWh | | X | | X | X | X |
| Shoulder Usage | \$/kWh | | X | | X | X | X |
| Off-Peak Usage | \$/kWh | | X | | X | X | X |
| Business TOU+MD >120 kVA | Default Tariff >120 kVA demand, type 4 and 5 meters, Opt-in <=120 kVA | | | | | | |
| Customers/Supply Ch | \$ pa | | X | | - | X | X |
| Anytime Max Demand | 3 \$/kVA pa | | X | | - | - | X |
| Peak usage | \$/kWh | | X | | X | X | X |
| Shoulder Usage | \$/kWh | | X | | X | X | X |
| Off-Peak Usage | \$/kWh | | X | | X | X | X |
| Small Business Actual Demand | Tariff Closed | | | | | | |
| Customers/Supply Ch | \$ pa | | X | | - | X | X |
| Peak Actual Demand | 1 \$/kVA/mth pa | | X | | X | - | X |
| Shoulder Actual Demand | 2 \$/kVA/mth pa | | X | | X | - | X |
| Usage | \$/kWh | | X | | X | X | X |
| Small Business OPCL Type 5, 6 | Tariff Closed. Not available with type 4 meters | | | | | | |
| Usage | \$/kWh | | X | | X | X | X |

Notes on Demand Elements

- 1 highest daily demand each of five months Nov-March charged per month
- 2 highest daily demand each of twelve months July-June charged per month
- 3 12 month rolling reset charged proportionally each month
- 4 agreed demand charged proportionally each month
- 5 Peak demand not applicable to backup, incurred by principal supply

Table 17A-11: Large LV business ~~indicative-price structure (\$nominal)~~

| Large LV Business Indicative Prices 2020/21 to 2024/25, excl GST | | DUoS | Alt CS | TUoS | PV FIT | NUoS |
|--|-----------------|------|--------|------|--------|------|
| Large LV Business Customers | | | | | | |
| Large LV Bus Actual Demand Tariff Closed | | | | | | |
| Customers/Supply Ch | \$ pa | X | | - | - | X |
| Peak Actual Demand | 1 \$/kVA/mth pa | X | | X | - | X |
| Shoulder Actual Demand | 2 \$/kVA/mth pa | X | | X | - | X |
| Usage | \$/kWh | X | | X | X | X |
| Large Bus Monthly Demand Opt-In Tariff, Same prices apply to CBD and Rest of SA, Peak demand period differs | | | | | | |
| Customers/Supply Ch | \$ pa | X | | - | - | X |
| Peak Actual Monthly Dem. | 1 \$/kVA/mth pa | X | | X | - | X |
| Anytime Actual Demand | 3 \$/kVA pa | X | | - | - | X |
| Peak Usage | \$/kVA pa | X | | X | X | X |
| Off-Peak Usage | \$/kWh | X | | X | X | X |
| Large Bus Annual Demand Default Tariff, Same prices apply to CBD and Rest of SA, Peak demand period differs | | | | | | |
| Customers/Supply Ch | \$ pa | X | | - | - | X |
| Peak Annual Max Demand | 3 \$/kVA pa | X | | X | - | X |
| Anytime Actual Demand | 3 \$/kVA pa | X | | - | - | X |
| Peak Usage | \$/kWh | X | | X | X | X |
| Off-Peak Usage | \$/kWh | X | | X | X | X |
| Large Bus Back-Up Special Tariff | | | | | | |
| Customers/Supply Ch | \$ pa | | X | - | - | X |
| Peak Annual Max Demand | 5 \$/kVA pa | | X | - | - | X |
| Anytime Actual Demand | 4 \$/kVA pa | | X | - | - | X |
| Peak Usage | \$/kWh | X | | X | X | X |
| Off-Peak Usage | \$/kWh | X | | X | X | X |
| Large Bus Generation Supplies Special Tariff | | | | | | |
| Customers/Supply Ch | \$ pa | | X | - | - | X |
| Peak Annual Max Demand | 4 \$/kVA pa | | X | X | - | X |
| Anytime Actual Demand | 4 \$/kVA pa | | X | - | - | X |
| Peak Usage | \$/kWh | - | | - | - | - |
| Off-Peak Usage | \$/kWh | - | | - | - | - |
| Large Bus Trans Type 6 Single Closed | | | | | | |
| Customers/Supply Ch | \$ pa | X | | - | X | X |
| Usage | \$/kWh | X | | X | X | X |
| Large Bus Trans Type 6 2-rate Closed | | | | | | |
| Customers/Supply Ch | \$ pa | X | | - | X | X |
| Peak usage | \$/kWh | X | | X | X | X |
| Off-Pk Usage | \$/kWh | X | | X | X | X |

Notes on Demand Elements

- 1 highest daily demand each of five months Nov-March charged per month
- 2 highest daily demand each of twelve months July-June charged per month
- 3 12 month rolling reset charged proportionally each month
- 4 agreed demand charged proportionally each month
- 5 Peak demand not applicable to backup, incurred by principal supply

Table 17A-12: Large HV business and Major business Indicative price structure (\$nominal)

| HV and Major Business Indicative Prices 2020/21 to 2024/25, excl GST | | DUoS | Alt CS | TUoS | PV FIT | NUoS |
|--|-----------------|------|--------|------|--------|------|
| HV Business Customers | | | | | | |
| HV Business Actual Demand Tariff Closed | | | | | | |
| Customers/Supply Ch | \$ pa | X | | - | - | X |
| Peak Actual Demand | 1 \$/kVA/mth pa | X | | X | - | X |
| Shoulder Actual Demand | 2 \$/kVA/mth pa | X | | X | - | X |
| Usage | \$/kWh | X | | X | X | X |
| HV Business Monthly Demand Opt-In Tariff, Same prices apply to CBD and Rest of SA, Peak demand period differs | | | | | | |
| Customers/Supply Ch | \$ pa | X | | - | - | X |
| Peak Actual Monthly Dem: | 1 \$/kVA/mth pa | X | | X | - | X |
| Anytime Actual Demand | 3 \$/kVA pa | X | | - | - | X |
| Peak Usage | \$/kVA pa | X | | X | X | X |
| Off-Peak Usage | \$/kWh | X | | X | X | X |
| HV Business Annual Demand Default Tariff, Same prices apply to CBD and Rest of SA, Peak demand period differs | | | | | | |
| Customers/Supply Ch | \$ pa | X | | - | - | X |
| Peak Annual Max Demand | 3 \$/kVA pa | X | | X | - | X |
| Anytime Actual Demand | 3 \$/kVA pa | X | | - | - | X |
| Peak Usage | \$/kWh | X | | X | X | X |
| Off-Peak Usage | \$/kWh | X | | X | X | X |
| HV Business Annual <500 Opt-In Tariff, Same prices apply to CBD and Rest of SA, Peak demand period differs | | | | | | |
| Customers/Supply Ch | \$ pa | X | | - | - | X |
| Peak Annual Max Demand | 1 \$/kVA pa | X | | X | - | X |
| Anytime Actual Demand | 3 \$/kVA pa | X | | - | - | X |
| Peak Usage | \$/kWh | X | | X | X | X |
| Off-Peak Usage | \$/kWh | X | | X | X | X |
| HV Business Back-Up Special Tariff | | | | | | |
| Customers/Supply Ch | \$ pa | | X | - | - | X |
| Peak Annual Max Demand | 5 \$/kVA pa | | X | - | - | X |
| Anytime Actual Demand | 4 \$/kVA pa | | X | - | - | X |
| Peak Usage | \$/kWh | X | | X | X | X |
| Off-Peak Usage | \$/kWh | X | | X | X | X |
| HV Bus Generation Supplies Special Tariff | | | | | | |
| Customers/Supply Ch | \$ pa | | - | - | - | - |
| Peak Annual Max Demand | 4 \$/kVA pa | | X | X | - | X |
| Anytime Actual Demand | 4 \$/kVA pa | | X | - | - | X |
| Peak Usage | \$/kWh | - | | - | - | - |
| Off-Peak Usage | \$/kWh | - | | - | - | - |
| Major Business Customers | | | | | | |
| Zone S-Stn Non-Loc Tariff amended for individual Customers, eg TUoS and some DUoS fixed charges | | | | | | |
| Customers/Supply Ch | \$ pa | - | | - | - | - |
| Peak Agreed Demand | 4 \$/kVA pa | X | | X | - | X |
| Anytime Agreed Demand | 4 \$/kVA pa | X | | - | - | X |
| Usage | \$/kWh | X | | X | X | X |
| Sub-Trans Non-Loc Tariff amended for individual Customers, eg TUoS and some DUoS fixed charges | | | | | | |
| Customers/Supply Ch | \$ pa | - | | - | - | - |
| Peak Agreed Demand | 4 \$/kVA pa | - | | X | - | X |
| Anytime Agreed Demand | 4 \$/kVA pa | X | | - | - | X |
| Usage | \$/kWh | X | | X | X | X |

Notes on Demand Elements

- 1 highest daily demand each of five months Nov-March charged per month
- 2 highest daily demand each of twelve months July-June charged per month
- 3 12 month rolling reset charged proportionally each month
- 4 agreed demand charged proportionally each month
- 5 Peak demand not applicable to backup, incurred by principal supply

Appendix C. Tariff structures~~Indicative pricing schedules~~ – Alternative Control Services

Please note the Alternative Control Services approved prices for the first year of the regulatory control period can be found in the AER’s alternative control services attachment (15) to the AER’s final decision for SA Power Networks 2020-25 regulatory control period. The information on how these prices will be escalated over the regulatory control period can be found in the control mechanisms attachment (13), as well as ~~and~~ the Alternative Control Services attachment, to this decision.

C.1 Ancillary Network Services price schedule

C.1.1 Fee-based services

Table 17A-13: Proposed Fee-based charges service descriptions (~~June 2020~~)

| Service Group | Service | Service Description | Fee code |
|---|--|--|----------|
| Network Ancillary Services – customer and third-party initiated services related to common distribution services | | | |
| Access permits, oversight and facilitation | Standard Charge Network Access Permit (8am - 3pm) | Organisation of switching requirements and field work to allow 3 rd party access to de-energised assets <u>or to work in close proximity of SA Power Networks assets</u> , where work is completed between 8am and 3pm. This fee includes the administration associated with arranging the permit, and field work to issue the permit and relinquish the permit once work is completed. | NDS 450 |
| | Standard NAP Extended daytime hours (6am - 6pm) (Weekdays) | Organisation of switching requirements and field work to allow 3 rd party access to de-energised assets <u>or to work in close proximity of SA Power Networks assets</u> , where the issuing of the permit or relinquishing of the permit is required to be completed between the hours of 6am and 6pm on weekdays. | NDS 451 |
| | Emergency NAP / Weekends / night shift | Organisation of switching requirements and field work to allow 3 rd party access to de-energised assets <u>or to work in close proximity of SA Power Networks assets</u> , where the issuing of the permit or relinquishing of the permit is required to be completed outside of business hours or in an emergency. | NDS 452 |
| | Network access management fee - cancellation | Cancellation of network access permit within 2 full business days of confirmed date. | NDS 429 |
| Network safety services | Temporary line insulation (eg tiger tails) | Temporary insulation of LV mains, eg to erect and remove ‘Tiger Tails’ on LV mains. | NDS 371 |
| Inspection and auditing services | Site Inspection | Site inspection to determine nature of the requested connection service < 2 hrs. | NDS 398 |
| | Re-inspection for compliance | Re-inspection of an asset issued with a non-compliance notice (including travel time) – up to 3 hours normal time. | NDS 345 |
| | Re-inspection for compliance > 3hrs | Re-inspection of an asset issued with a non-compliance notice – hourly rate after 3 hours normal time. | NDS 346 |
| | Re-inspection for compliance – after hours | Re-inspection of an asset issued with a non-compliance notice – hourly rate after hours. | NDS 347 |

| Service Group | Service | Service Description | Fee code |
|---|--|--|----------|
| Security Lights | Security Lighting - HID <=400W | Floodlight capital cost recovery and maintenance of installed security lights up to 400W (non-LED). This fee also includes removal of the light, installation costs are recovered as a quoted fee upon request. | NDS453 |
| | Security Lighting - HID >400W | Floodlight capital cost recovery and maintenance of installed security lights greater than 400W (non-LED). This fee also includes removal of the light, installation costs are recovered as a quoted fee upon request. | NDS454 |
| | Security Lighting - LED <=200W | Floodlight capital cost recovery and maintenance of installed LED security lights up to 200W. This fee also includes removal of the light, installation costs are recovered as a quoted fee upon request. | NDS455 |
| | Security Lighting - LED >200W | Floodlight capital cost recovery and maintenance of installed LED security lights greater than 200W. This fee also includes removal of the light, installation costs are recovered as a quoted fee upon request. | NDS456 |
| Customer requested provision of electricity network data | Location of underground mains – provision of plans from office | Location of underground mains at the request of a customer – provision of plans from the office (no site visit required). | NDS 373 |
| | Asset information request | Provision of asset information relating to condition, rating or available capacity to engineering consultants and electrical contractors and the supply of GIS information to customers or authorities < 1 hours work per request. | NDS 377 |
| | Asset info request - Ground level transformers (site visit to open and visually see equipment) | Confirmation of available equipment in ground level transformers where the door needs to be opened by a SA Power Networks employee. | NDS 379 |
| | Swing & Sag Calculations up to 11kV | Project management and survey work undertaken to prepare and issue a swing and sag calculation letter for the customer – up to 11kV. | NDS 419 |
| | Swing & Sag Calculations > 11kV | Project management and survey work undertaken to prepare and issue a swing and sag calculation letter for the customer - > 11KV. | NDS 428 |
| Metering services— activities relating to the measurement of electricity supplied to and from customers through the distribution system (excluding network meters) | | | |
| Auxiliary metering services (type 5 to 7 metering installations) | Meter test – single phase | Customer requested meter test where SA Power Networks is the Metering Coordinator (MC) and when a test is required due to high account or a subsequent incorrect functioning solar installation. | NDS 356 |
| | Meter test – additional single-phase meter | Testing of each additional single-phase meter in conjunction with single phase meter test. | NDS 357 |
| | Meter test – three-phase | Customer requested meter test where SA Power Networks is the Metering Coordinator (MC) and when a test is required due to high account or a subsequent incorrect functioning solar installation. | NDS 358 |
| | Meter test – additional three phase meter | Testing of each additional three-phase meter in conjunction with single phase meter test. | NDS 359 |
| | Solar installation enquiry – single phase | Customer requests SA Power Networks to attend a single-phase solar installation which is not functioning correctly, and it is determined by the SA Power Networks' personnel that the problem is a result of the customer's solar installation being incorrectly set / malfunctioning. | NDS 360 |
| | Solar installation enquiry – three-phase | Customer requests SA Power Networks to attend a three-phase solar installation which is not functioning correctly, and it is determined by the SA Power Networks' personnel that the problem is a result of the | NDS 362 |

| Service Group | Service | Service Description | Fee code | |
|--|---|--|---|---------|
| | | customer's solar installation being incorrectly set / malfunctioning. | | |
| | Meter inspection fee | Request to complete physical inspection where SA Power Networks is the Metering Coordinator (MC) due to suspected meter tampering, equipment damage, or requested by the customer or their retailer. | NDS 364 | |
| | Meter inspection fee – each additional meter | Request to complete physical inspection where SA Power Networks is the Metering Coordinator (MC) - each additional meter. | NDS 365 | |
| | Special meter read visit – normal hours | A special meter reading visit occurs when a customer requests a check read or special read at premises. | NDS 386 | |
| | Special meter read visit – after hours | A special meter reading visit occurs when a customer requests a check read or special read at premises (where after-hours visit is requested). | NDS 387 | |
| | Special Read / Disco / Reco - Cancellation | Special meter reading, disconnection, or reconnection visit which is subsequently cancelled. This fee will be charged for all service orders cancelled prior to the work being completed. | NDS 388 | |
| | Meter read – subsequent attempt | Subsequent attempts to read a meter after reasonable attempt has been made but has been unsuccessful due to access difficulties. | NDS 389 | |
| | Third party requested outage for purpose of replacing a meter | At the request of a retailer or metering coordinator provide notification to affected customers and facilitate the disconnection / reconnection of customer metering installations where a retailer planned interruption cannot be conducted. | NDS 457 | |
| Connection services—services relating to the electrical or physical connection of a customer to the network | | | | |
| Connection application and management services | Temporary supply -overhead or underground on existing pole | Provision of a temporary over to under service on an existing Stobie pole that is located up to 25 metres from the customer's property boundary on the mains side of the street. | BCS 141 | |
| | Temporary supply - Existing pit/pillar | Provision of a temporary service from an existing low voltage service pit/pillar that is located up to 25 metres from the property boundary. | BCS 145 | |
| | Permanent abolishment of LV service | Request for permanent abolishment of the LV supply provision (this does not include the removal of additional distribution assets ie poles and transformers) | NDS 301 | |
| | Temporary disconnect and reconnect - customer | | Requests for a temporary disconnection and reconnection, requiring a line truck attendance. | NDS 302 |
| | | | Requests for a temporary disconnection and reconnection, requiring a single person crew attendance. | NDS 330 |
| | Excess kVAr incentive | The Excess kVAr incentive charge is applied to each excess kVAr required over and above the implied kVAr allowance provided in the South Australian Electricity Distribution Code to meet a customer's agreed maximum demand on their recorded power factor at the time of their Actual Maximum Demand. The charge is applied to customers currently assigned to a network | NDS 366 | |

| Service Group | Service | Service Description | Fee code |
|------------------------------|---|--|--------------------|
| | | demand tariff who are not code compliant with respect to power factor at the time of their Actual Maximum Demand requiring greater than 10kVAr of correction. | |
| | Connections specification fee - \$0-\$200k project | Work undertaken in preparing and issuing the specification including one site visit for customer extension works. Project value \$0 - \$200k based on contestable value of project. | NDS 340 |
| | Connections specification fee - >\$200k project | Work undertaken in preparing and issuing the specification including one site visit for customer extension works. Project value greater than \$200k based on contestable value of project. | NDS 341 |
| | Priority or out of hour appointment – less than 3 hours | Provision of a priority connection at the customer's request. Work will be undertaken out of hours or during normal hours in which case another job will be done after hours to accommodate the requested connection date. | NDS 401 |
| | Retailer fee - disconnection & reconnection – Disconnection at meter | Disconnection of supply. | NDS 403 |
| | Retailer fee - disconnection & reconnection – reconnection at meter | Reconnection of supply. | NDS 404 |
| | Retailer fee - disconnection & reconnection – reconnect meter after hours | Reconnection of supply after hours. | NDS 405 |
| | Embedded generation firm offer - >30kW-200kW | Work undertaken for the network analysis, preparing and issuing an offer letter, contract and associated commissioning for the customer's embedded generation system. | NDS 427 |
| | Retailer fee - Temporary disconnection and reconnection O/head – retailer truck attendance | Retailer requests for a temporary disconnection and reconnection of supply where, requiring a line truck attendance is required (e.g. for a pole top disconnection). | NDS 430 |
| | | Requests for a temporary disconnection and reconnection, requiring a single person crew attendance. | NDS 431 |
| Enhanced connection services | Alter/relocate/replace of overhead/underground service | Customer request for relocation / alteration or replacement of an existing overhead or underground service. | BCS 106 |
| | Multiphase upgrade - O/under or O/head | Provision of an over to under service on an existing low voltage stobie pole or an overhead service from an existing low voltage stobie pole and the requested number of phases are available. | BCS 109 |
| | Multiphase upgrade - O/under or O/head | Connection provided from an existing suitable low voltage service pit / pillar and the requested number of phases are available at the service point. | BCS 110 |
| | Multiphase upgrade - existing pit/pillar | Provision of an over to under service on an existing low voltage stobie pole or from an existing service pit/pillar that is located up to 25 metres from the customer's property boundary on the same side of the street and the requested number of phases are available. | BCS 111 |

C.1.2 Quoted services

We provide a range of non-standard services on a quoted basis including:

- access permits, oversight and facilitation;
- sale of approved materials or equipment;
- notices of arrangement and completion notices;
- network safety services (eg high load escorts);
- customer requested planned interruption;
- attendance at a customer’s premises to perform a statutory right where access is prevented;
- inspection and auditing services;
- provision of training to third parties for network related access;
- authorisation and approval of third-party service providers’ design, work and materials;
- customer initiated or triggered network asset relocations / re-arrangements;
- customer requested provision of electricity network data;
- third party funded network alterations or other improvements;
- auxiliary metering services (type 5 – 7 metering installations);
- meter recovery and disposal – type 5 and 6 (legacy meters);
- emergency maintenance of failed metering equipment not owned by SA Power Networks;
- standard and negotiated connection services (premises connections, excluding extensions and augmentations);
- connection application and management services (eg, connection point alterations, temporary supply, technical / engineering studies, specification fees, specification re-compliance, works / design compliance / network infrastructure connection re-appointments, and pole top disconnections / reconnections);
- enhanced connection services (large embedded generators (>200kW)); and
- public lighting, including LED cleaning where cleaning required prior 10 year scheduled clean.

C.1.3 Quoted services formula

We propose to apply the following formula for our quoted services:

$$\text{Price} = \text{Labour} + \text{Contractor Services} + \text{Materials} + \text{Margin}$$

Where:

Labour consists of all labour costs directly incurred in the provision of the service which may include labour on-costs, fleet on-costs, and overheads. Proposed labour rates are set out in section C.1.4 below.

Contractor Services reflect all costs associated with the use of the external labour including overheads and any direct costs incurred. The contracted services charge applies the rates under existing contractual arrangements. Direct costs incurred are passed on to the customer.

Materials reflect the cost of materials directly incurred in the provision of the service, material on-costs and overheads.

Margin is equal to 6 per cent of the total costs of labour, contractor services and materials.

C.1.4 Quoted service labour rates

Proposed labour rates applicable for quoted services are contained in Table 17A-14. Overtime rates will be applicable to all after hours work.

Table 17A-14: Proposed labour rates ~~applicable to components for~~ quoted charges ~~(\$ June 2020)~~

| Labour Code | Description |
|-------------|-----------------------------------|
| Admin | Administrative Officer |
| PM | Project Manager |
| FW | Field Worker |
| Tech | Technical Specialist |
| Eng | Engineer |
| SEng | Senior Engineer |
| Admin OT | Administrative Officer - Overtime |
| PM OT | Project Manager - Overtime |
| FW OT | Field Worker - Overtime |
| Tech OT | Technical Specialist - Overtime |
| Eng OT | Engineer - Overtime |
| SEng OT | Senior Engineer - Overtime |

C.2 Metering services price component schedule

Indicative price schedule for legacy metering services – effective from 1 July 2020

SA Power Networks will charge a legacy metering service charge for all NMIs where we provide legacy metering services. Charges will be applied as a fixed daily charge on a ‘per NMI’ basis.

There are four different combinations of legacy metering service charges possible:

- **Existing customers using SA Power Networks’ meters that were installed prior to 1 July 2015** - These customers continue to pay the capital and non-capital charges;
- **Existing customers using SA Power Networks’ meters that were installed after 1 July 2015** - These customers will have incurred an upfront capital charge and will continue to pay the non-capital charge;
- **Existing customers using SA Power Networks’ meters at 30 June 2015 with meters subsequently replaced by 3rd party meters** – These customers will continue to pay the capital charge and will cease paying the non-capital charge. This will apply to all metering upgrades and replacements undertaken by retailers under metering contestability arrangements post December 2017; and
- **New customers¹⁴ after 1 July 2015 with 3rd party meters installed** – These customers are not liable for any annual metering charges to SA Power Networks. From December 2017 (metering contestability commencement), where a new customer connects to the network the retailer will arrange metering.

Table 17A-15: Proposed annual metering service charges (~~\$nominal~~) components

| | |
|--------------------------------|-------------------------|
| Legacy metering service charge | Non-capital |
| | Capital |
| | Non-capital and capital |

¹⁴ I.e. new connection to the distribution network

C.3 Public Lighting price component schedule

Table 17A-16: ~~Proposed Annual public lighting charges components~~ – LED lights ~~(\$June 2020)~~

| Category | Service Description | Code | Light |
|-------------------|---------------------|-------------|-----------------------------------|
| All Lights | Energy Only | | All lights |
| P | | LED17 | Sylvania StreetLED 17W |
| Category | | LED29 | Sylvania StreetLED 25W |
| | | LED22 | Sylvania StreetLED 18W |
| | | LED46 | Advanced Edge40 D350P 46W |
| | | LED43 | Pecan SAT-48S 44W |
| | | LED17 PT | Kensington 17W PT |
| | | LED35 | Pecan NXT-24S 450 35W |
| | | LED39 | Alt Ledway 30 D350 39W |
| | | LED26 | Alt Ledway 20 D350 26W |
| | | LED20 | Pecan NXT-12S 525 20W |
| | | LED28 | Pecan NXT-24S 350 29W |
| | | LED23 PT | Bourke Hill 22W LED |
| | | LED16 | StreetLED 17W Mk3 (inc. SAPNS) |
| | | LED24 | StreetLED 24W Mk3 |
| | | LED18 PT | B2001 PT 17W Neo |
| | | LED19 PT | B2001 PT 17W Shade |
| | | LED32 PT | B2001 PT 34W Neo |
| | | LED33 PT | B2001 PT 34W Shade |
| | | LED17 | Sylvania StreetLED 17W |
| | | LED29 | Sylvania StreetLED 25W |
| | | LED22 | Sylvania StreetLED 18W |
| | | LED46 | Advanced Edge40 D350P 46W |
| | | LED43 | Pecan SAT-48S 44W |
| | | LED17 PT | Kensington 17W PT |
| | | LED35 | Pecan NXT-24S 450 35W |
| | | LED39 | Alt Ledway 30 D350 39W |
| | | LED26 | Alt Ledway 20 D350 26W |
| | | LED20 | Pecan NXT-12S 525 20W |
| | | LED28 | Pecan NXT-24S 350 29W |
| | | LED23 PT | Bourke Hill 22W LED |
| | | LED16 | StreetLED 17W Mk3 (inc. SAPNS) |
| | | LED24 | StreetLED 24W Mk3 |
| | | LED18 PT | B2001 PT 17W Neo |
| | | LED19 PT | B2001 PT 17W Shade |
| | | LED32 PT | B2001 PT 34W Neo |
| | | LED33 PT | B2001 PT 34W Shade |
| | | LED17 | Sylvania StreetLED 17W |
| | | LED29 | Sylvania StreetLED 25W |
| | | LED22 | Sylvania StreetLED 18W |
| | | LED46 | Advanced Edge40 D350P 46W |

| Category | Service Description | Code | Light | |
|----------|---------------------|-------------|--------------------------------|---------------------------|
| SAPN | | LED43 | Pecan SAT-48S 44W | |
| | | LED17 PT | Kensington 17W PT | |
| | | LED35 | Pecan NXT-24S 450 35W | |
| | | LED39 | Alt Ledway 30 D350 39W | |
| | | LED26 | Alt Ledway 20 D350 26W | |
| | | LED20 | Pecan NXT-12S 525 20W | |
| | | LED28 | Pecan NXT-24S 350 29W | |
| | | LED23 PT | Bourke Hill 22W LED | |
| | | LED16 | StreetLED 17W Mk3 (inc. SAPNS) | |
| | | LED24 | StreetLED 24W Mk3 | |
| | | LED18 PT | B2001 PT 17W Neo | |
| | | LED19 PT | B2001 PT 17W Shade | |
| | | LED32 PT | B2001 PT 34W Neo | |
| | | LED33 PT | B2001 PT 34W Shade | |
| | | LED17 | Sylvania StreetLED 17W | |
| | | LED29 | Sylvania StreetLED 25W | |
| | | LED22 | Sylvania StreetLED 18W | |
| | | LED46 | Advanced Edge40 D350P 46W | |
| | | LED43 | Pecan SAT-48S 44W | |
| | | LED17 PT | Kensington 17W PT | |
| | | LED35 | Pecan NXT-24S 450 35W | |
| | | LED39 | Alt Ledway 30 D350 39W | |
| | | LED26 | Alt Ledway 20 D350 26W | |
| | | LED20 | Pecan NXT-12S 525 20W | |
| | | LED28 | Pecan NXT-24S 350 29W | |
| | | LED23 PT | Bourke Hill 22W LED | |
| | | LED16 | StreetLED 17W Mk3 (inc. SAPNS) | |
| | | LED24 | StreetLED 24W Mk3 | |
| | | LED18 PT | B2001 PT 17W Neo | |
| | | LED19 PT | B2001 PT 17W Shade | |
| | | LED32 PT | B2001 PT 34W Neo | |
| | | LED33 PT | B2001 PT 34W Shade | |
| | V Category | CLER | LED200 | Pecan SAT-96M 200W |
| | | | LED105 | Aldridge LED 105W |
| | | | LED198 | Aldridge LED 198W |
| | | | LED88 | Alt Ledway 40 D700 88W |
| | | | LED70 | Advanced Edge40 D525P 70W |
| LED150 | | | A1 Insights 150W | |
| LED90 | | | Advanced Edge40 D700 88W | |
| LED72 | | | Pecan SAT-48S 72W | |
| LED117 | | | Pecan NXT-72M 117W | |
| LED158 | | | Pecan NXT-72M 158W | |
| LED298 | | | Aldridge ALS216 298W | |
| LED178 | | | Pecan SAT-96M 178W | |

| Category | Service Description | Code | Light |
|----------|---------------------|---------------------------|---------------------------|
| PLC | | LED175 | Sylvania RoadLED 175W |
| | | LED79 | Pecan NXT-72M 350 78W |
| | | LED80 | Sylvania RoadLED 80W |
| | | LED60 | Sylvania RoadLED 60W |
| | | LED155 | |
| | | TM | Parkville 155W |
| | | LED81 | |
| | | TM | Parkville 80W |
| | | LED101 | |
| | | TM | Parkville 100W |
| | | LED58 | RoadLED Midi 60W |
| | | LED78 | RoadLED Midi 80W |
| | | LED151 | RoadLED Midi 150W |
| | | LED180 | Kanon 180W Flood |
| | | F | |
| | | LED360 | Kanon 2x180W Flood |
| | | F | |
| | | LED200 | Pecan SAT-96M 200W |
| | | LED105 | Aldridge LED 105W |
| | | LED198 | Aldridge LED 198W |
| | | LED88 | Alt Ledway 40 D700 88W |
| | | LED70 | Advanced Edge40 D525P 70W |
| | | LED150 | A1 Insights 150W |
| | | LED90 | Advanced Edge40 D700 88W |
| | | LED72 | Pecan SAT-48S 72W |
| | | LED117 | Pecan NXT-72M 117W |
| | | LED158 | Pecan NXT-72M 158W |
| | | LED298 | Aldridge ALS216 298W |
| | | LED178 | Pecan SAT-96M 178W |
| | | LED175 | Sylvania RoadLED 175W |
| | | LED79 | Pecan NXT-72M 350 78W |
| | | LED80 | Sylvania RoadLED 80W |
| | LED60 | Sylvania RoadLED 60W | |
| | LED155 | | |
| | TM | Parkville 155W | |
| | LED81 | | |
| | TM | Parkville 80W | |
| | LED101 | | |
| | TM | Parkville 100W | |
| | LED58 | RoadLED Midi 60W | |
| | LED78 | RoadLED Midi 80W | |
| | LED151 | RoadLED Midi 150W | |
| | LED180 | Kanon 180W Flood | |
| | F | | |
| | LED360 | Kanon 2x180W Flood | |
| | F | | |
| | LED200 | Pecan SAT-96M 200W | |
| | LED105 | Aldridge LED 105W | |
| | LED198 | Aldridge LED 198W | |
| | LED88 | Alt Ledway 40 D700 88W | |
| | LED70 | Advanced Edge40 D525P 70W | |
| TFI | | LED150 | A1 Insights 150W |
| | | LED90 | Advanced Edge40 D700 88W |
| | | LED72 | Pecan SAT-48S 72W |
| | | LED117 | Pecan NXT-72M 117W |
| | | LED158 | Pecan NXT-72M 158W |
| | | LED298 | Aldridge ALS216 298W |

| Category | Service Description | Code | Light |
|----------|---------------------|--------------------|---------------------------|
| SAPN | | LED178 | Pecan SAT-96M 178W |
| | | LED175 | Sylvania RoadLED 175W |
| | | LED79 | Pecan NXT-72M 350 78W |
| | | LED80 | Sylvania RoadLED 80W |
| | | LED60 | Sylvania RoadLED 60W |
| | | LED155 | |
| | | TM | Parkville 155W |
| | | LED81 | |
| | | TM | Parkville 80W |
| | | LED101 | |
| | | TM | Parkville 100W |
| | | LED58 | RoadLED Midi 60W |
| | | LED78 | RoadLED Midi 80W |
| | | LED151 | RoadLED Midi 150W |
| | | LED180 | Kanon 180W Flood |
| | | F | |
| | | LED360 | Kanon 2x180W Flood |
| | | F | |
| | | LED200 | Pecan SAT-96M 200W |
| | | LED105 | Aldridge LED 105W |
| | | LED198 | Aldridge LED 198W |
| | | LED88 | Alt Ledway 40 D700 88W |
| | | LED70 | Advanced Edge40 D525P 70W |
| | | LED150 | A1 Insights 150W |
| | | LED90 | Advanced Edge40 D700 88W |
| | | LED72 | Pecan SAT-48S 72W |
| | | LED117 | Pecan NXT-72M 117W |
| | | LED158 | Pecan NXT-72M 158W |
| | | LED298 | Aldridge ALS216 298W |
| | | LED178 | Pecan SAT-96M 178W |
| | | LED175 | Sylvania RoadLED 175W |
| | | LED79 | Pecan NXT-72M 350 78W |
| | | LED80 | Sylvania RoadLED 80W |
| | | LED60 | Sylvania RoadLED 60W |
| | | LED155 | |
| | | TM | Parkville 155W |
| | | LED81 | |
| | | TM | Parkville 80W |
| | | LED101 | |
| | | TM | Parkville 100W |
| | LED58 | RoadLED Midi 60W | |
| | LED78 | RoadLED Midi 80W | |
| | LED151 | RoadLED Midi 150W | |
| | LED180 | Kanon 180W Flood | |
| | F | | |
| | LED360 | Kanon 2x180W Flood | |
| | F | | |

Table 17A-17: ~~Proposed a~~Annual public lighting charges ~~components~~ - HID lights ~~(\$June)~~

| Category | Service Description | Code | Light |
|---------------|---------------------|--------|-----------------------------------|
| P Category | Energy Only | | All lights |
| | | F42 | Compact Fluorescent-42 |
| | | F14x2 | Fluorescent 2x14 |
| | | F2x8 | Fluorescent 2x8 |
| | CLER | F32 | Compact Fluorescent 32 |
| | | PT F42 | Compact Fluorescent 42 – Post Top |
| | | F11X2 | Fluorescent 11x2 |

| Category | Service Description | Code | Light |
|----------|---------------------|----------|-----------------------------------|
| | | F20 | Fluorescent 20 |
| | | F2X20 | Fluorescent 2x20 |
| | | F2X40 | Fluorescent 2x40 |
| | | F40 | Fluorescent 40 |
| | | F40X3 | Fluorescent 3x40 |
| | | F40X4 | Fluorescent 4x40 |
| | | F8X2 | Fluorescent 8x2 |
| | | I100 | Incandescent 100 |
| | | M50 | Mercury 50 |
| | | M70 | Mercury 70 |
| | | M80 | Mercury 80 |
| | | PT M50 | Mercury 50 – Post top |
| | | PT M80 | Mercury 80 – Post top |
| | | S50 | High pressure sodium 50 |
| | | L18 | Sodium 18 LP |
| | | L26 | Sodium 26 LP |
| | | PT L18 | Sodium 18 LP – Post top |
| | | MH100 | Metal Halide 100 |
| | | MH125 | Metal Halide 125 |
| | | MH150 | Metal Halide 150 |
| | | MH250 | Metal Halide 250 |
| | | MH400 | Metal Halide 400 |
| | | MH50 | Metal Halide 50 |
| | | MH70 | Metal Halide 70 |
| | | PT MH100 | Metal Halide 100 – Post top |
| | | PT S70 | Sodium 70 – Post top |
| | | S70 | Sodium 70 |
| | | PT S50 | Sodium 50 – Post top |
| PLC | | F32 | Compact Fluorescent 32 |
| | | PT F42 | Compact Fluorescent 42 – Post Top |
| TFI | | F32 | Compact Fluorescent 32 |
| | | PT F42 | Compact Fluorescent 42 – Post Top |
| | | F42 | Compact Fluorescent-42 |
| | | F14x2 | Fluorescent 2x14 |
| | | F2x8 | Fluorescent 2x8 |
| | | F32 | Compact Fluorescent 32 |
| | | PT F42 | Compact Fluorescent 42 – Post Top |
| | | F11X2 | Fluorescent 11x2 |
| | | F20 | Fluorescent 20 |
| | | F2X20 | Fluorescent 2x20 |
| | | F2X40 | Fluorescent 2x40 |
| | | F40 | Fluorescent 40 |
| | | F40X3 | Fluorescent 3x40 |
| | | F40X4 | Fluorescent 4x40 |
| | | F8X2 | Fluorescent 8x2 |
| | | I100 | Incandescent 100 |
| | | M50 | Mercury 50 |
| | | M70 | Mercury 70 |
| | | M80 | Mercury 80 |
| | | PT M50 | Mercury 50 – Post top |
| | | PT M80 | Mercury 80 – Post top |
| | | S50 | High pressure sodium 50 |
| | | L18 | Sodium 18 LP |
| | | L26 | Sodium 26 LP |
| | | PT L18 | Sodium 18 LP – Post top |
| | | MH100 | Metal Halide 100 |
| | | MH125 | Metal Halide 125 |
| SLUOS | | | |

| Category | Service Description | Code | Light |
|----------|---------------------|---------|------------------------|
| | | I750 F | Incandescent Flood 750 |
| | | M1000 F | Mercury Flood 1000 |
| | | M250 F | Mercury Flood 250 |
| | | M400 F | Mercury Flood 400 |
| | | M750 F | Mercury Flood 750 |
| | | M80 F | Mercury Flood 80 |
| | | S360 F | Sodium Flood 360 |
| | | S400 F | Sodium Flood 400 |

Glossary

| Abbreviation | Definition or description |
|-----------------------------|---|
| ACS | Alternative control services |
| AER | Australian Energy Regulator |
| AEMO | Australian Energy Market Operator |
| AEMC | Australian Energy Market Commission |
| Augmentation | Investment in new network assets to meet increased demand. |
| BD | Business actual demand |
| B2R | Small business two-rate |
| BSR | Small business single-rate |
| <u>BTOU</u> | <u>Business time of use</u> |
| Capacity | The amount of electrical power that a part of the network is able to carry. |
| Capital Contributed Works | Works for which the customer(s) contribute towards the cost of supplying assets, typically because they are the sole users. |
| CBD | Central business district |
| COAG | Council of Australian Governments |
| Contestability | Customer choice of electricity or related service supplier. |
| Controlled Load | The DNSP controls the hours in which the supply is made available. |
| Cost of Supply Model | Theoretical and algorithmic model used to calculate prices, which conform to the pricing goals. |
| Cross subsidy | Where the price to a tariff class falls outside the range between the avoidable incremental cost of supply and the cost of stand-alone supply, an economic cross subsidy from or to other customers is said to exist. |
| CSIRO | Commonwealth Scientific and Industrial Research Organisation |
| CT | Current Transformer – used in metering high voltage customers |
| Demand | Electricity consumption at a point in time. |
| Demand Management | Attempt to modify customer behaviour so as to constrain customer demand at critical times. |
| DER | Distributed Energy Resources, such as solar |
| Distribution Network | The assets and service which links energy customers to the transmission network. |
| Distributor, DNSP | Distribution Network Service Provider |
| DUoS | Distribution Use of System. The utilisation of the distribution network in the provision of electricity to consumers (a component of NUoS). |
| DAPR | Distribution Annual Planning Report |
| ESCoSA | Essential Services Commission of South Australia, a South Australian Regulator of energy and other infrastructure. |
| ESOO | Electricity Statement of Opportunities – prepared by the Australian Energy Market Operator |
| EV | Electric vehicle |
| EWOSA | Energy and Water Industry Ombudsman of South Australia |
| FiT | Feed-in Tariff paid to customers that have solar generators. |
| FRMP | Financially Responsible Market Participant |
| GSL | Guaranteed Service Level |
| GWh | Gigawatt hours (a thousand-megawatt hours or a million-kilowatt hours) |
| HBD | Large business HV actual monthly demand |
| HV/High Voltage | Equipment or supplies at voltages of 7.6kV or 11kV Tariff: large business annual agreed demand |
| HV400 | Large business HV annual agreed demand <400 kVA |
| IBT, Inclining Block Tariff | A network tariff energy rate in which the rate increases above specific consumption thresholds. |
| JSA | Jurisdictional Scheme Amount, a component of the Network Use of System charge to fund Feed-in Tariff payments to customers that have solar generators. |

| Abbreviation | Definition or description |
|---------------------------|--|
| kVA, MVA | Kilo-volt amps and Mega-volt amps, units of apparent total electrical power demand. Usually the peak demand is referenced. See also PF for the relationship between power demand quantities. |
| kVAr, MVAr | Kilo-volt amps (reactive) and Mega-volt amps (reactive) units of instantaneous reactive electrical power demand. Usually the peak demand is referenced. See also PF for the relationship between power demand quantities. |
| kW, MW | Kilo-watts and Mega-watts, units of instantaneous real electrical power demand. Usually the peak demand is referenced. See also PF for the relationship between power demand quantities. |
| kWh, MWh | Kilo-watt hours and Mega-watt hours, units of electrical energy consumption |
| LB2R | Large business two-rate |
| LBSR | Large business single-rate |
| LV/Low Voltage | Equipment or supply at a voltage of 230V single phase or 400V, three phase Tariff: LV annual demand |
| LV 1000 | Business tariffs - annual demand with more than 1000 kVA |
| LRMC | Long run marginal cost |
| Marginal Cost | The cost of providing a small increment of service – the Long Run Marginal Cost (LRMC) includes future investment, Short Run Marginal Cost (SRMC) considers only the costs involved without extra investment |
| Market Participant | Businesses involved in the electricity industry are referred to as Market or Code Participants |
| MD | Maximum Demand |
| Supply Rate | The fixed daily cost component of a Network price |
| NEL | National Electricity Law |
| NEM | National Electricity Market |
| NER | National Electricity Rules |
| NUoS | Network Use of System – the utilisation of the total electricity network in the provision of electricity to consumers (NUoS = DUoS + TUoS + PV FIT). |
| NMI | National metering identifier |
| NWD | A non-work day, Saturday and Sunday |
| OPCL | Off-peak Controlled Load (includes electric hot water systems) |
| Opex | Operating expenditure |
| POE | %POE refers to the forecasting scenario as a percentage Probability of Exceeding the forecast proposed |
| PV FIT | Solar Photo Voltaic Feed-in Tariff |
| PVNSG | Solar PV – non-scheduled generator – a commercial solar installation designed to inject power into the network rather than for self-consumption |
| PF | Power Factor, a measure of the ratio of real power to total power of a load. The relationship between real, reactive and apparent power is as follows: Power Factor = Real Power (kW) / Apparent Power (kVA) Apparent Power (kVA) = $\sqrt{[\text{Real Power (kW)}]^2 + [\text{Reactive Power (kVAr)}]^2}$ |
| Price Signal | Prices set to convey a desired behaviour because of the costs associated with supplying the service. |
| Price Structure | The components that make up a Price available to customers. |
| RCP | Regulatory Control Period (usually 5 years) |
| RSR | Residential Supply Rate |
| Retailer | A Full Retail Contestability market participant (business) supplying electricity to customers. |
| <u>RTOU</u> | <u>Residential time-of-use</u> |
| <u>RPRO</u> | <u>Residential Prosumer</u> |
| Rules | National Electricity Rules |
| SBD | Small business actual demand |
| SBDT | Small business actual demand transition |
| SCS | Standard control service |

| Abbreviation | Definition or description |
|-----------------------------|---|
| SLV | Small business agreed demand |
| Sub-transmission | Equipment or supplies at voltage levels of 33kV or 66 kV |
| SWER | Single wire earth return |
| Tariff | Network price components and conditions of supply for a tariff class |
| Tariff class | A class of customers for one or more direct control services who are subject to a particular tariff or particular tariffs with similar electricity demand and usage requirements |
| ToU | Time-of-Use, a system of pricing where energy or demand charges are higher in periods of peak utilisation of the network |
| Transmission Network | The assets and service that enable generators to transmit their electrical energy to population centres. Operating voltage of equipment is 275kV and 132kV with some at 66kV |
| TSS | Tariff structure statement |
| TUoS | Transmission Use of System charges for the utilisation of the transmission network |
| Unmetered supply | A connection to the distribution system which is not equipped with a meter and has estimated consumption. Connections to public lights, phone boxes, traffic lights and the like are not normally metered |
| VPP | Virtual power plant |
| WD | A work day, Monday through to Friday excluding public holidays |