

# Attachment 14

## Alternative Control Services

2020-25  
Regulatory Proposal  
31 January 2019

### This section outlines:

- › how we have developed proposed prices, and the proposed price control mechanisms, for customer-specific services to be provided during the 2020-25 Regulatory Control Period; and
- › how we have incorporated customer and stakeholder feedback into our proposals.





## Company information

SA Power Networks is the registered Distribution Network Service Provider (**DNSP**) for South Australia. For information about SA Power Networks visit [www.sapowernetworks.com.au](http://www.sapowernetworks.com.au)

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This document contains certain predictions, estimates and statements that reflect various assumptions concerning, amongst other things, economic growth and load growth forecasts. The Proposal includes documents and data that are part of SA Power Networks' normal business processes, and are therefore subject to ongoing change and development.

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## Note

This attachment forms part of our Proposal for the 2020-25 RCP. It should be read in conjunction with the other parts of the Proposal.

Our Proposal comprises the overview and attachments listed below, and the supporting documents that are listed in Attachment 18:

Document	Description
	Regulatory Proposal overview
	Customer and stakeholder engagement report
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Attachment 15	Negotiated services framework and criteria
Attachment 16	Connection policy
Attachment 17	Tariff Structure Statement
Attachment 18	List of Proposal documentation

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## 14. Alternative Control Services

### 14.1 Overview

Alternative control services (**ACS**) are direct control services that are initiated by and/or are directly attributable to specific customers (ie where the cost of the service can be assigned to an individual customer), that are subject to direct regulatory oversight.

The costs of these services:

- are recovered directly from the customer who requests or otherwise initiates (by action or inaction) the provision of the service; and
- do not form part of our revenue requirements for standard control services (**SCS**).

In July 2018, the Australian Energy Regulator (**AER**) published the final Framework and Approach (**F&A**) paper to apply to SA Power Networks for the 2020–25 regulatory control period (**RCP**). In its F&A, 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.

The AER subsequently published in October 2018 the first Electricity Distribution Service Classification Guideline (**EDSC Guideline**) and indicated that any changes made in the final version of the EDSC Guideline may constitute a material change of circumstances that justifies a departure by the AER from the position stated in the F&A.<sup>1</sup>

The service classification in the EDSC Guideline is substantially similar to the final F&A but distinguishes three types of connection services – basic connection services, standard connection services and negotiated connection services – with each type of connection service involving different degrees of work to connect a premises, or to extend and/or augment our network. The AER proposed that basic connection services, standard connection services and negotiated connection services relating to premises be classified as ACS.

For the 2015-20 RCP, some metering services (eg meter testing at a customer's request), non-standard connection services, public lighting services and a wide range of other ancillary services were classified as negotiated distribution services (**NDS**). The proposed change in classification from NDS to ACS will improve consistency in how services are classified across jurisdictions and provide greater regulatory oversight on price setting.

We accept the AER's approach to classify legacy metering services, various other metering related services, connection services (other than basic connection services relating to premises which we maintain should be classified as SCS in accordance with the final F&A), network ancillary services, and public lighting services as ACS and to apply a price cap form of control to those ACS. Details of our proposed service classification are set out in Attachment 12- Classification of services.

For this Proposal, we have grouped the ACS under three sub-headings:

- legacy metering services – type 5 and 6 meter maintenance, reading and data services and legacy capital cost recovery;
- fee-based and quoted services – customer or third-party initiated services; and

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<sup>1</sup> Clauses 6.12.3(b),(c) and (c1) of the NER set out the circumstances where the AER can depart from the position stated in the F&A in the distribution determination.

- public lighting – including the provision, construction and maintenance of public lighting installations and emerging public lighting technology.

## 14.2 Rule requirements

Clause 6.8.2(c)(3) of the National Electricity Rules (**NER**) states that our Proposal must include:

- a demonstration of the application of the control mechanism for ACS set out in the F&A; and
- necessary supporting information for that demonstration.

Clause 6.2.6(b) of the NER provides that for ACS, the control mechanism must have a basis stated in the distribution determination for the 2020-25 RCP.

In addition, clause 6.2.6(c) of the NER provides that the control mechanism for ACS may (but need not) utilise elements of Part C of Chapter 6 of the NER (relating to building block determinations – with or without modification).

## 14.3 Metering Services

### 14.3.1 Overview

Metering assets are used to measure electrical energy flows at a connection point on our network for a particular premises to record consumption for the purposes of billing.

In 2015, the Australian Energy Market Commission (**AEMC**) made a rule introducing metering contestability effective from 1 December 2017, as part of its broader Power of Choice reform package.<sup>2</sup> From 1 December 2017, all electricity meters that are installed must be a remotely read interval (or 'smart') meter, where the provision of the new or replacement smart meter is the responsibility of the metering coordinator (**MC**) appointed for the connection point, by the customer's retailer. Currently, legacy meters are being replaced at an average rate of about 6% per annum.

On the introduction of metering contestability on 1 December 2017, distribution network service providers (**DNSPs**), including SA Power Networks, were deemed to be the initial MC for all existing 'legacy' type 5 and type 6 meters. As the initial MC, we are responsible for just under 1 million legacy meters, with the majority of these being type 6 basic accumulation meters which record electrical energy flow on an accumulation basis. We have about 9,000 type 5 meters (manually read interval meters), which are generally installed on smaller commercial or rural premises. We will continue to be responsible for reading and maintaining these legacy meters in accordance with the NER until they are replaced with smart meters. However, as noted above we no longer install or replace electricity meters, with this work now being the responsibility of the retailer appointed MC.

In the AER's distribution determination for SA Power Networks for the 2010-15 RCP (**2010 Determination**), the AER reclassified these legacy metering services as ACS in preparation for the commencement of metering contestability.<sup>3</sup>

Up until 30 June 2015, the capital cost of installing type 5 and type 6 meters was added to our regulated metering asset base (**MAB**) and recovered over the life of the asset. From 1 July 2015, in accordance with the 2015 Determination<sup>4</sup>, the capital costs associated with customer requested new meter installations

<sup>2</sup> *National Electricity Amendment (Expanding competition in metering and related services) Rule 2015 No. 12.*

<sup>3</sup> *AER, Final Framework and approach paper ETSA Utilities 2010-15, November 2008*

<sup>4</sup> *AER, Final decision – SA Power Networks determination 2015-16 to 2019-20, Attachment 16 – Alternative control services, October 2015, p 8.*



were funded up-front by customers, with these costs no longer being added to the MAB. Meter replacements, initiated by us, continued to be added to the MAB for ongoing capital recovery.

The AER in its F&A proposed to retain the classification of ACS for legacy metering services,<sup>5</sup> and apply a price cap to these services using the formulae set out in Figures 2.2 and 2.3 of the F&A.<sup>6</sup> As an ACS, cost reflective prices for legacy metering services are applied, enabling customers to make effective decisions regarding their future metering requirements.

We agree with the AER's classification and form of control mechanism, as well as the formulae set out in the F&A, and propose to apply a 'building block approach' to determine prices for legacy metering services under the price cap control mechanism for the 2020-25 RCP.

Our proposed legacy metering service charges for the 2020-25 RCP have been developed in accordance with the AER's price cap formula set out in the F&A. These charges are set out in Attachment 17 - Tariff Structure Statement (Appendix I).<sup>7</sup>

### 14.3.2 Scope of legacy metering services

As the initial MC for legacy metering services, we are responsible for providing the following metering services for legacy meters installed on our distribution network:

- routine meter reading (either monthly or quarterly);
- undertaking special reads initiated by us to validate routine meter reading data<sup>8</sup>;
- validating meter reading data and forwarding this data to market participants in accordance with the Australian Energy Market Operator's (AEMO's) meter data provision procedures;
- undertaking visual inspection of meters where required to confirm effective operation of the metering equipment;
- completion of in-service compliance testing to ensure the meters continue to comply with the accuracy requirements of the NER;
- inspection and testing of our low voltage current transformers, in accordance with the NER; and
- notifying the retailer of any failed legacy metering installation, either due to in-service failure of an individual meter or failure of a family of meters.

As mentioned above, we are no longer permitted to complete any new meter installation or replacement activities. When a legacy meter needs to be replaced due to failure, we will notify the retailer for the relevant connection point. Following notification, the retailer must appoint a MC, who is then required to replace the meter within the timeframe requirements as prescribed within the NER.

The detailed strategy and approach used to manage metering assets, for which we are the MC, are documented within our asset management plan for metering (see Supporting Document 14.1 – Metering Asset Management Plan).

<sup>5</sup> AER, *Final framework and approach – SA Power Networks Regulatory control period commencing 1 July 2020*, July 2018, p 30.

<sup>6</sup> Ibid, p 58 to 59.

<sup>7</sup> Approved charges for legacy metering services for the 2015-20 RCP are contained within Supporting Document 14.2 – Metering Model and PTRM.

<sup>8</sup> Special reading of legacy meters requested by retailers form part of our fixed-fee services, refer to section 14.4 within this Attachment.

### 14.3.3 Current and forecast legacy meter population

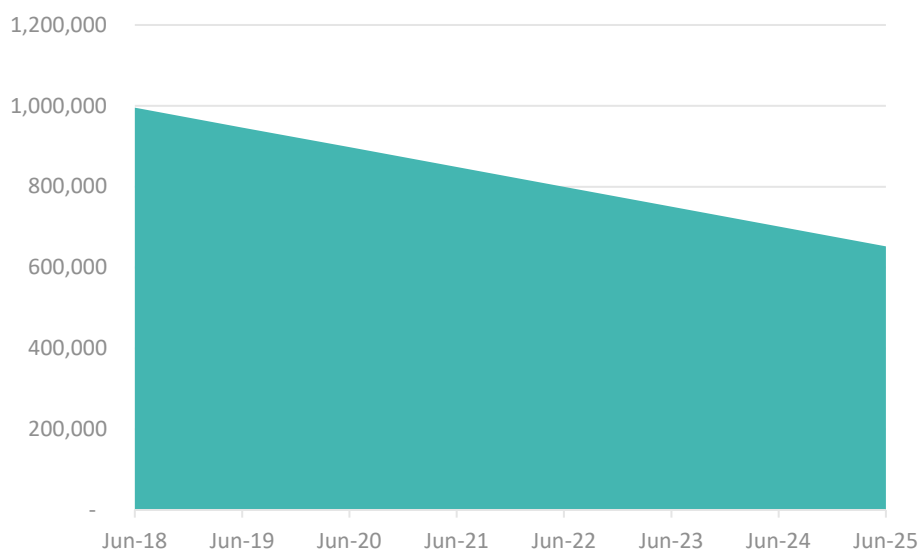
As mentioned above, we currently manage just under 1 million legacy meters, with these legacy meters forecast to be steadily replaced with contestably provided smart meters. The drivers for legacy meter removal include:

- individual meter failure;
- family meter failures (resulting from testing against AS1284.13 – Electricity Metering In-service Compliance Testing);
- connection alterations, including solar installations, requiring meter upgrade; and
- retailer-initiated replacements.

Historical data has been used to forecast the reduction in our legacy meter population, with the population estimated to reduce by approximately 50,000 meters per year. Each premise with legacy metering has an estimated average of 1.3 meters installed, therefore a reduction of 50,000 meters will reduce the number of premises for which legacy metering services are provided by SA Power Networks by approximately 39,000 premises each regulatory year. Approximately 26,600 legacy meters were replaced with smart meters between 1 December 2017 and 31 December 2018. We expect this number to continue to grow as maturity in the contestable metering market improves.

Figure 14.1 illustrates our forecast population of legacy meters to June 2025.

**Figure 14.1: Forecast remaining legacy meter population**



The number of legacy meters installed on premises connected to our distribution network will drive the quantity of legacy metering services that are required to be provided by SA Power Networks over the 2020-25 RCP.

### 14.3.4 Metering service charges

To develop our proposed price caps, we have applied a ‘building block approach’, where the total revenue reflects the forecast return on capital, return of capital (depreciation), operating expenditure (**opex**), and tax liability.

**Table 14.1: Proposed building blocks for the 2020-25 RCP**

<b>\$m, nominal</b>	<b>2020/21</b>	<b>2021/22</b>	<b>2022/23</b>	<b>2023/24</b>	<b>2024/25</b>	<b>Total</b>
Return on capital	1.87	1.53	1.18	0.80	0.41	5.79
Return of capital (depreciation)	6.20	6.53	6.87	7.22	7.59	34.42
Operating Expenditure	9.08	9.08	9.06	9.02	8.93	45.18
Net tax allowance	-	-	-	-	-	-
<b>Annual revenue requirement<sup>9</sup></b>	<b>17.16</b>	<b>17.14</b>	<b>17.11</b>	<b>17.05</b>	<b>16.94</b>	<b>85.39</b>

We propose legacy metering service charges for the 2020-25 RCP that consist of two components:

- A capital charge – associated with MAB return on and return of (depreciation) capital, which will be charged to all customers who had legacy meters installed as at 1 July 2015<sup>10</sup>; and
- A non-capital charge – reflecting our efficient opex that will be charged to all customers with a current legacy meter installed.

This is consistent with the charges for the 2015-20 RCP set out in the 2015 Determination, apart from the upfront metering charge for the installation of new type 5 and type 6 meters. This upfront metering charge is no longer applicable as SA Power Networks has not been responsible for installing or replacing meters since the introduction of metering contestability on 1 December 2017.

We also propose to simplify our legacy metering service charges for the 2020-25 RCP by removing price variations associated with whole current and current transformer connected metering. As discussed in section 14.3.6 below, we propose to use a ‘base-step-trend’ methodology to determine opex for our legacy metering services for the 2020-25 RCP. This base-step-trend approach does not forecast operating costs by meter type, therefore we are no longer able to accurately allocate costs between whole current and current transformer connected metering installations. The proposed annual revenue requirement (as provided in Table 14.1) will be recovered uniformly across all legacy meter types. This will improve the simplicity of the legacy metering pricing structures for SA Power Networks, retailers and customers.

The proposed legacy meter service charges have been developed using our metering pricing model, comprising of the AER’s post tax revenue model (**PTRM**) and roll forward model (**RFM**) as provided in Supporting Document 14.2 – Metering Model and PTRM and 14.3 – Metering Roll Forward Model. The key inputs to our pricing proposal are discussed further below.

### 14.3.5 Metering asset base

The MAB consists of the unrecovered capital cost of legacy metering equipment installed on a customer’s premises. We have used the AER’s RFM to calculate the opening value of the MAB as at 1 July 2020 of \$34.4 million (\$June 2020).

The MAB is predominantly made up of legacy meters installed prior to 1 July 2015, with metering equipment installed after this date funded through an upfront metering charge.

No new capital is forecast for legacy metering services during the 2020-25 RCP.

The opening MAB value of \$34.4 million, has an estimated remaining life of 5.49 years, which would leave a closing balance of \$3.6m as at 30 June 2025 (refer to Table 14.2).

<sup>9</sup> Annual revenue requirement for these ACS is as provided within the Metering Pricing Model, this may not balance to the sum of the components in Table 14.1 due to rounding.

<sup>10</sup> The capital charge will continue to be charged for all premises where a legacy (type 5 or type 6) meter was installed as at 1 July 2015, even if the meter has been subsequently removed. This charge will continue to apply until the MAB is fully recovered.

**Table 14.2: Roll forward of MAB for the 2020-25 RCP**

<b>\$m, nominal</b>	<b>2020/21</b>	<b>2021/22</b>	<b>2022/23</b>	<b>2023/24</b>	<b>2024/25</b>
Opening MAB (1 July 2020)	34.4	29.1	23.4	17.5	10.7
Forecast capex / additions	-	-	-	-	-
Depreciation	(6.2)	(6.4)	(6.5)	(7.2)	(7.4)
Inflation on Opening MAB	0.9	0.7	0.6	0.4	0.3
Closing balance (30 June 2025)	29.1	23.4	17.5	10.7	3.6

The remaining life of the MAB as at 30 June 2025 is half a year. We propose to accelerate the depreciation of the MAB during the 2020-25 RCP to enable the MAB to be fully depreciated by the end of the 2020-25 RCP. This will result in an increase in depreciation of approximately \$3.4 million over the 2020-25 RCP, with a marginal average increase in capital recovery charges of about \$0.84 per customer per regulatory year<sup>11</sup>.

Accelerating the depreciation of the MAB in the 2020-25 RCP will provide the following benefits:

- Reduced administrative burden for SA Power Networks, retailers and the AER – with only operating and maintenance costs to be included within the 2025-30 RCP for legacy metering services; and
- Ease of communication – customers will cease paying MAB capital recovery fees at the end of the 2020-25 RCP, enabling clear and concise communication to customers regarding the cessation of capital recovery charges. Customers who had a legacy meter installed as at 30 June 2015<sup>12</sup> and who have since had these meters replaced with smart meters, will no longer receive a metering charge from SA Power Networks after 30 June 2025.

We discussed the proposed accelerated depreciation of the MAB with the SA Power Networks Customer Consultative Panel (CCP), who supported this proposal as a sensible way forward.

The roll forward of the MAB with accelerated depreciation is provided in Table 14.3 below.

**Table 14.3: Roll forward of MAB for 2020-25 RCP (accelerated)**

<b>\$m, nominal</b>	<b>2020/21</b>	<b>2021/22</b>	<b>2022/23</b>	<b>2023/24</b>	<b>2024/25</b>
Opening MAB (1 July)	34.4	28.2	21.7	14.8	7.6
Forecast capex / additions	-	-	-	-	-
Depreciation	(7.1)	(7.2)	(7.4)	(7.6)	(7.8)
Inflation on Opening MAB	0.9	0.7	0.5	0.4	0.2
Closing balance (30 June)	28.2	21.7	14.8	7.6	-

### 14.3.6 Operating costs

We have used a ‘base-step-trend’ methodology to determine our opex forecast for legacy metering services for the 2020-25 RCP, consistent with the AER’s preferred approach to assessing opex categories<sup>13</sup>.

Our base opex for legacy metering services has been calculated on a per customer basis, using the average opex for legacy metering services for the 2015/16, 2016/17, and 2017/18 regulatory years divided by average customer numbers over the same regulatory years, refer to Table 14.4 below. To

<sup>11</sup> Accelerated PTRM provides increased capital recovery of \$3.4 million over the 2020-25 RCP (\$June 2020). This is recovered across 806,550 customers who had legacy meters installed as at 1 July 2015. Resulting in increased annual charge of approximately \$0.84 per customer.

<sup>12</sup> Meters installed after 30 June 2015 were subject to an upfront charge and were no longer added to the MAB.

<sup>13</sup> AER, *Better regulation: Expenditure forecast assessment guideline for distribution*, November 2013, p. 32.

minimise the impact of cyclical variability in some legacy metering cost elements, we propose to use average opex for legacy metering services across three regulatory years as the base. These years were selected as most representative of the actual cost of providing legacy metering services, noting that the full retail contestability (meter energy data services) costs were only reported in ACS from 1 July 2015. The actual opex for legacy metering services for the 2015/16, 2016/17, and 2017/18 regulatory years are derived from Regulatory Information Notice (**RIN**) data, as provided annually to the AER.

**Table 14.4: Base opex per customer (\$June 2020)**

<b>\$ June 2020</b>	<b>2015/16</b>	<b>2016/17</b>	<b>2017/18</b>	<b>Average</b>
Opex	10,658,970	9,660,182	8,462,054	9,593,735
Customer numbers	813,093	812,834	794,582	806,836
Average Opex / Customer				11.89

We do not propose any step changes to our proposed base level opex.

To derive our forecast opex for legacy metering services, we trended forward the base opex for legacy metering services over the 2020-25 RCP, applying forecast customer numbers, real price growth, and a metering contestability productivity adjustment, which are discussed further below.

#### 14.3.6.1 Customer numbers

Legacy metering service charges are applied per National Metering Identifier (**NMI**), irrespective of the number of physical meters installed on the premises. Each premise with legacy metering is estimated to have an average of 1.3 meters installed.

Using historical installation and maintenance data for type 5 and type 6 meters, we have forecast legacy meters to be replaced at a rate of approximately 50,000 meters per annum, this equates to about 39,000 premises, with meters removed due to:

- individual meter failure;
- failure of a family of meters (resulting from testing against AS1284:13);
- customer requested connection alterations, including solar installations, requiring meter upgrade; or
- a retailer-initiated replacement.

This meter churn forecast has been used to estimate the remaining volume of premises with legacy metering installed for the 2020-25 RCP.

#### 14.3.6.2 Real price growth

A real price change adjusts the base opex to account for forecast changes in input costs above or below the Consumer Price Index (**CPI**). Consistent with SCS, we have included a real increase in labour price growth, adopting an average of BIS Oxford Economics and Deloitte Access Economics (**DAE**) utilities sector labour price growth forecasts for metering opex (see section 6.7.3.2 of Attachment 6 – Operating expenditure for further information).

**Table 14.5: Forecast labour price growth for the 2020-25 RCP**

	<b>2020/21</b>	<b>2021/22</b>	<b>2022/23</b>	<b>2023/24</b>	<b>2024/25</b>
BIS Oxford Economics %	1.16%	1.53%	1.72%	1.62%	1.36%
Deloitte Access Economics %	0.40%	0.60%	0.70%	0.57%	0.57%
<b>Average labour price growth %</b>	<b>0.78%</b>	<b>1.07%</b>	<b>1.21%</b>	<b>1.09%</b>	<b>0.96%</b>



### 14.3.6.3 Metering contestability productivity adjustment

Metering opex is composed of fixed and variable components, where only some cost components will be avoided as customer numbers reduce and legacy meters are progressively replaced with smart meters. As customer numbers and consequently legacy meter numbers decline, fixed costs will need to be spread over a smaller number of meters, resulting in an increase in opex per customer even though the total metering opex will decline.

Some costs are fixed in the short term, including for meter sample testing and meter data services. Sample testing is cyclical; each population of meters is tested to maintain compliance with the NER, with the compliance period determined based on previous test results. A population may be deemed compliant for 7 years, 5 years, or 2 years, with a requirement to complete sample testing prior to the end of this compliance period to confirm ongoing compliance. Sample sizes are determined in accordance with AS1284.13 – Electricity Metering In-service Compliance Testing. While costs for sample testing are cyclical, they are expected to remain relatively fixed until there are significant movements in customer numbers. To minimise cyclical variations in metering testing costs, an average cost has been used over the past three regulatory years, with this component forecast to remain fixed over the 2020-25 RCP.

Meter data services encompass the function of receiving meter readings, validating and substituting these readings, and forwarding these readings to market participants in accordance with AEMO's meter data provision procedures. Meter data services includes the cost of our meter data management systems and processing meter reading exceptions, where operating and maintenance costs are attributed or allocated to ACS in accordance with our approved Cost Allocation Method (**CAM**). These costs will remain fixed over the 2020-25 RCP with approximately 650,000 legacy meters expected to be in service as at 30 June 2025.

Meter reading costs are variable, driven by the number of legacy meters read each period. While these costs are considered variable, we expect the cost of meter reading to increase on a per unit basis, as the distance between reads increases due to lower density of legacy meters.

To cater for the change in fixed and variable components of costs over time as our legacy metering sites reduce, we propose to apply a metering contestability productivity factor to legacy meter costs for the 2020-25 RCP. We have applied the same methodology to calculate our metering contestability productivity factor for ACS as the AER used in its draft decisions for NSW DNSPs in November 2018.<sup>14</sup>

To calculate this productivity factor, we have constructed a bottom up build of opex for the 2018-25 period, using RIN data. To develop this forecast, costs are classified as fixed or variable for the period. The productivity factor represents the relationship between change in customer numbers and change in opex by comparing an independent variable of the natural log of opex and the natural log of forecast customer numbers, as provided in Table 14.6 below.

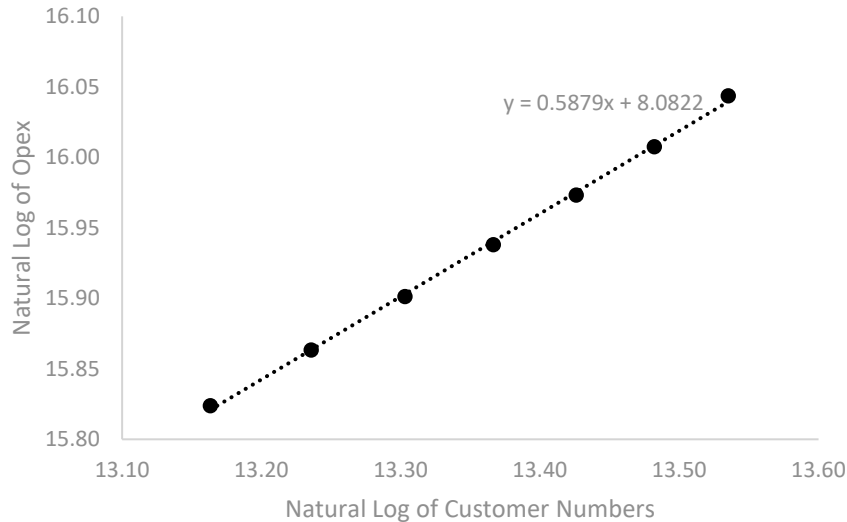
**Table 14.6: Base opex and customer number forecast for the 2018-25 period (pre-productivity adjustment)**

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Customer Forecast	755,471	716,360	677,249	638,138	599,027	559,916	520,805
Natural Log of Customer Forecast	13.54	13.48	13.43	13.37	13.30	13.24	13.16
Opex Forecast	9,280,968	8,951,845	8,651,437	8,351,028	8,050,620	7,750,212	7,449,803
Natural Log of Opex	16.04	16.01	15.97	15.94	15.90	15.86	15.82

<sup>14</sup> See, eg, AER, Draft decision – Essential Energy distribution determination 2019-24, Attachment 15 – Alternative control services, p 30 to 33.

The results of applying a fit trend line to the opex set out in Table 14.6 as it relates to forecast legacy meter numbers are contained in Figure 14.2. The proposed metering contestability productivity factor of 58.79% has been applied to determine required opex for the 2020-25 RCP as provided in Supporting Document 14.2 –Metering Model and PTRM. This means a 1% reduction in customers numbers will result in a 0.59% drop in legacy metering opex.

**Figure 14.2: Forecast productivity factor for legacy metering services opex for the 2020-25 RCP**

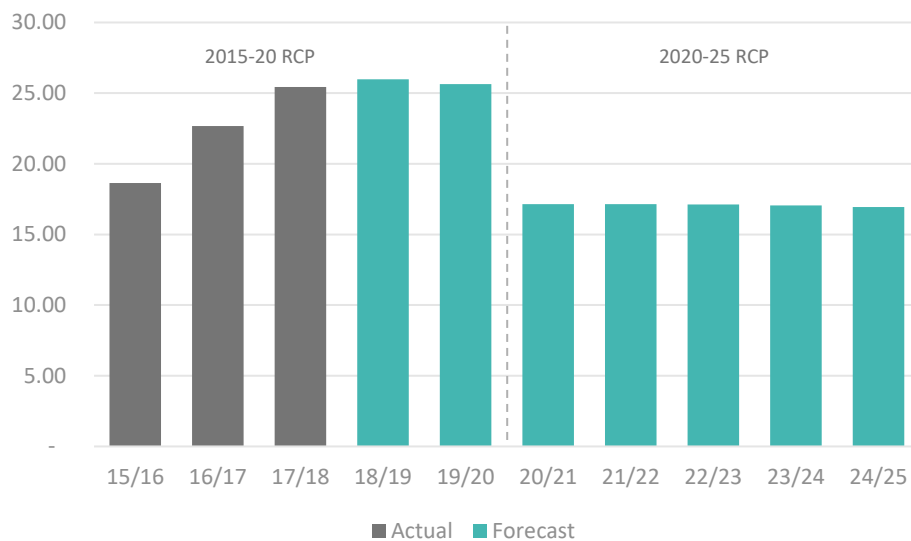


### 14.3.7 Metering services revenue

Our proposed revenue forecast for legacy metering services for the 2020-25 RCP is \$85m .

Actual and forecast revenue associated with providing legacy metering services for the 2015-20 RCP and the 2020-25 RCP is provided in Figure 14.3 and below. While legacy metering services opex is reducing year on year following the introduction of metering contestability, the reduction in proposed revenue for the 2020-25 RCP is predominantly driven by the declining MAB value, reducing the return on and return of capital for the 2020-25 RCP.

**Figure 14.3: Revenue for legacy metering services for the 2015-20 and 2020-25 RCPs (\$m, nominal)**



**Table 14.7: Revenue for legacy metering services for the 2015-20 and 2020-25 RCPs (\$m, nominal)**

	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
Actual / Forecast	18.65	22.66	25.43	25.98	25.63	17.16	17.14	17.11	17.05	16.94

## 14.4 Fee-based and quoted services

### 14.4.1 Overview

Fee-based and quoted services are customer or third-party initiated services related to our services classified as common distribution services.

These services include the individual fee-based or quoted services in the following service classification groupings:

- network ancillary services;
- metering services – for services other than metering services discussed in section 14.3;
- connection services – for services other than basic premises connections and extensions and augmentations; and
- public lighting.

Our fee-based and quoted services are provided to customers as either:

- **Fee-based services** – The work involved in some service activities is relatively standard and is charged on a fixed-fee basis. Fees are derived from the relevant labour rates, average time to perform the work, and other known costs. For fee-based services, the fixed-fee is charged irrespective of the actual time taken to provide the service; or
- **Quoted services** – Some service activities may vary considerably between jobs. This is often the case for one-off activities that are specific to a particular customer's request. For quoted services, charges are levied on a time and materials basis.

A detailed listing of our proposed fee-based and quoted services is provided in Attachment 17 - Tariff Structure Statement (Appendix I).

As an ACS, the full cost of providing fee-based and quoted services is recovered from the customer or third-party who requested, initiated or triggered the service.

The AER in its final F&A has proposed to classify network ancillary services, metering services, some connection services and public lighting services as ACS for the 2020–25 RCP, which is consistent with the classification of these services in other jurisdictions. This is a significant change from the current classification in South Australia, where these services are currently classified as NDS. As ACS, the AER will approve the prices we can charge our customers for these services.

Our proposed fee-based and quoted service charges have been developed in accordance with the price cap formulas set out in the F&A as detailed in section 14.6. Our proposed indicative prices for fee-based and quoted service for the 2020-25 RCP are contained in Attachment 17 - Tariff Structure Statement (Appendix I).<sup>15</sup>

<sup>15</sup> Charges applicable for negotiated services for the 2015-20 RCP are contained within Supporting Documents 14.9 - Network Negotiated Services & Public Lighting – 2015\_16, 14.10 - Network Negotiated Services & Public Lighting – 2016\_17, 14.11 - Network Negotiated Services & Public Lighting – 2017\_18 and 14.12 - Network Negotiated Services & Public Lighting – 2018\_19.

#### 14.4.2 Service costs

The build-up of costs to provide each fee-based and quoted service has been developed using historical data. We have employed a full absorption methodology for determining the costs to provide fixed-fee and quoted services for the 2020-25 RCP. Our 2020-25 RCP fee-based services, have been developed to provide full cost recovery for each individual service. In developing our fee-based service charges, we have identified a few instances where our negotiated service charge is not currently cost reflective. We have proposed increases in these fee-based charges to make them cost reflective from the commencement of the 2020-25 RCP.

All direct costs of undertaking the services have been attributed to ACS in accordance with the CAM, as provided in Table 14.8 below.

**Table 14.8: Directly attributed costs for ACS fee-based and quoted services**

Cost category	Description	Basis of attribution (driver)
<b>Labour and related costs</b>	Includes the following: <ul style="list-style-type: none"> <li>• Normal and overtime salaries and wages, associated payroll on-costs and employee / industry allowances.</li> <li>• Supplementary labour support from external providers.</li> </ul>	Standard rates specific to location and job type, directly attributed by employee timesheet to job/work order.
<b>Materials</b>	Stock items or purchases of irregular or low turnover items.	Directly attributed to job/work order. Stock materials incur a percentage on-cost for warehousing and delivery costs.
<b>Contractors</b>	Provision of services by external parties.	Directly attributed to job/work order.
<b>Operational vehicles</b>	Heavy fleet operating costs including fuel, registration, maintenance and repairs, and fleet management <sup>16</sup> .	Standard rates specific to vehicle type, directly attributed by employee timesheet to job/work order.

Further details on the build-up of costs directly attributed to our fee-based and quoted services is provided in the sections below.

Indirect costs are allocated to fixed-fee and quoted services in accordance with the CAM. A fixed overhead percentage, consistent with the rate currently applied to negotiated services in accordance with the CAM, has been utilised for the 2020-25 RCP. The overhead rates are made up of two components:

- Labour overhead – Accounts for the non-billable time (excluding travel<sup>17</sup>) of employees completing work. Non-billable time includes time planning work, attending safety briefing and other meetings, and completing training.
- Corporate overhead – Includes corporate costs, relating to the organisational groups supporting the operational functions of SA Power Networks. Examples of corporate support groups are Finance, Information Technology, Human Relations, Work, Health & Safety and Property Services.

For the 2020-25 RCP, we propose to include a margin for fee-based and quoted services in our indicative prices. The inclusion of a margin is consistent with the principle of competitive neutrality, with margins included in prices that would be observed for similar services in a competitive market.

The application of a margin is consistent with the revenue and pricing principles contained within the National Electricity Law (NEL), where ‘a price or charge for the provision of a direct control network

<sup>16</sup> Light fleet vehicles are allocated as indirect costs, included in business overheads

<sup>17</sup> Average travel time has been included in the time build-up assigned to each fixed-fee service. For quoted services, travel time will reflect the actual travel time required to travel to and from the work site.

service should allow for a return commensurate with the regulatory and commercial risks involved in providing the direct control network service to which that price or charge relates<sup>18</sup>. A 6% margin is proposed for fee-based and quoted services, this is commensurate with the typical margins applied for other DNSPs and accepted by the AER for this type of work.

This margin will be applied to the price build up for fee-based and quoted services, in a similar way to the application of indirect costs, with the margin applied at the end of the calculation.

#### 14.4.2.1 Labour

Labour is a major cost component in the provision of fixed-fee and quoted services. The cost of labour is determined by applying the employees applicable hourly rate with the time required to efficiently complete the service. SA Power Networks has a large range of pay rates applicable to employees who perform fixed-fee and quoted services. To simplify the development of our proposed prices for fixed fee services and inputs for quoted services, we propose to group our labour categories into 6 groups, where similar labour classifications are grouped under one labour code, as set out in Table 14.9. This process is consistent with the approach adopted by DNSPs in other jurisdictions.

**Table 14.9: Labour classifications**

Labour Code	Description	Labour categories covered	Proposed labour rate (excluding indirect costs)
Admin	Administrative Officer	Business support officers, project creation and close-out, administration relating to projects (invoicing, rebates)	\$58.94
PM	Project Manager	Network project officers, powerline network designers, network and field services project managers	\$102.40
FW	Field Worker	Trade skilled worker, asset locators, customer connect officers, compliance officers, substation construction, maintenance, testing, supervisors, transformer / recloser workshop, metering services	\$81.52
Tech	Technical Specialist	SCADA, telecommunication officers, network facilities, quality of supply officers, telecommunications network operating, network standards, network access, substation estimators, surveyors	\$105.80
Eng	Engineer	Substation design, network planning, network protection, earthing, project engineers	\$98.83
SEng	Senior Engineer	Protection engineers	\$119.50

The labour rate for each group has been calculated using the average base labour rate for employees performing the work, following analysis of labour costs allocated within our accounting systems. The base labour rates reflect the labour rates contained within SA Power Network's enterprise bargaining agreement (EBA)<sup>19</sup>, inclusive of statutory on-costs<sup>20</sup>.

For fee-based services, we have applied a quantity of labour to develop proposed prices for services. The efficient quantity of labour has been estimated using historical work order data taking into consideration:

<sup>18</sup> NEL section 7A (5)

<sup>19</sup> Utilities Management Pty Ltd Enterprise Agreement 2018

<sup>20</sup> For example, superannuation, workers compensation, leave and leave loading and payroll tax.



- the number of employees required to complete the work;
- the average time to travel to and from the worksite; and
- the average time required on-site to complete the work task.

Consistent with SCS, we have included a real increase in labour price growth, adopting an average of 1% labour price growth (refer to Attachment 6 – Operating expenditure for further information).

The labour cost build-up for fee-based services is contained within Supporting Document 14.4 – Fixed-fee and Quoted Services Pricing Model.

#### **14.4.2.2 Materials**

Materials are directly assigned to job/work orders at cost. They include stock items distributed through SA Power Networks' centralised warehouse and specific purchases of irregular or low turnover items. An on-cost is added to stock materials to cover the cost of warehousing and delivery of materials held in the central store. This is in the form of a percentage applied to the direct cost of material (calculated as the cost of warehousing and delivery over the value of materials distributed).

The materials worksheet contained in Supporting Document 14.4 – Fixed-fee and Quoted Services Pricing Model provides a list of material stock items and unit prices. Historical material usage has been used to build-up fixed-fee service costs. For quoted services, materials will be charged based on the requirements of the specific service.

#### **14.4.2.3 Contractors**

Contractor costs (or services costs), relating to services provided by external parties, are treated similarly to materials in that they are directly assigned to job/work orders at cost. Rates for common contract services are determined through a competitive tendering process.

Contracted services applicable for proposed fixed-fee and quoted services include:

- traffic management;
- trenching;
- meter reading; and
- disconnection and reconnection activities.

#### **14.4.2.4 Vehicles**

Operational vehicles (ie heavy fleet) are centrally managed by SA Power Networks fleet group and assigned to work groups. An average hourly rate per vehicle class is calculated to incorporate the total operating cost of vehicles including fuel, registration, maintenance and repairs, and fleet management, and divided by the expected productive hours of utilisation. The operating costs associated with light fleet (ie passenger vehicles) are incorporated in business overheads.

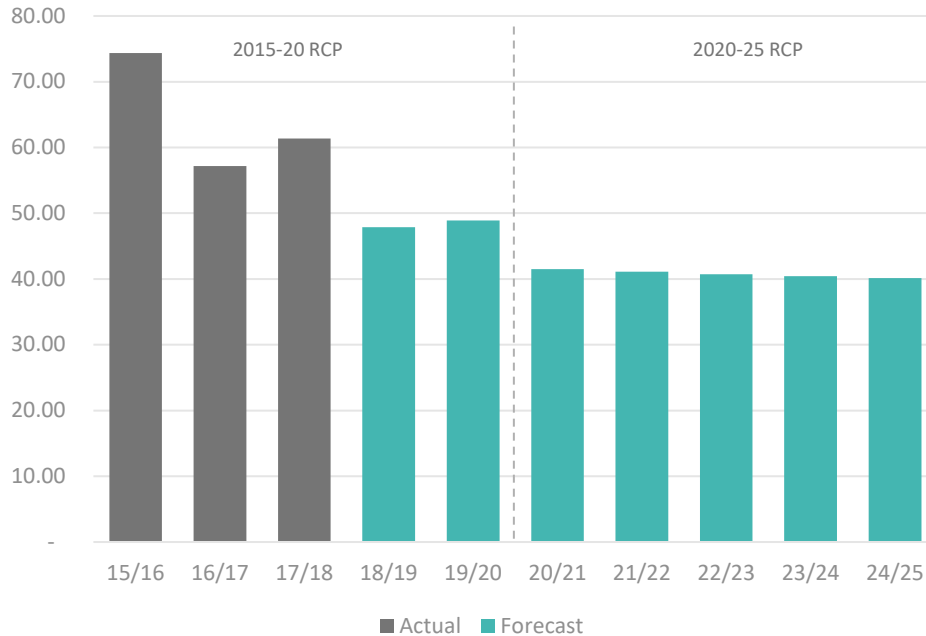
Operational vehicle costs are charged at standard rates directly to job/work orders by way of employee timesheets. Base vehicle rates have been calculated using rates applicable for the 2017/18 regulatory year.

### **14.4.3 Fee-based and quoted services revenue**

Our proposed revenue forecast for fee-based and quoted services for the 2020-25 RCP is \$204m.

Actual and forecast revenue associated with providing fee-based and quoted services for the 2015-20 RCP and the 2020-25 RCP are set out in Figure 14.4 and Table 14.10 below. Revenue varies annually according to the volume of individual services requested by our customers. Forecast volumes for the 2020-25 RCP have been estimated based on historical data. We have forecast volumes to remain stable for most services. Services impacted by metering contestability have been forecast to decline in line with expected reductions in legacy meters.

**Figure 14.4: Revenue for fee-based and quoted services for the 2015-20 and 2020-25 RCPs (\$m, June 2020)**



**Table 14.10: Revenue for fee-based and quoted services for the 2015-20 and 2020-25 RCPs (\$m, June 2020)**

	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
Actual / Forecast	74.34	57.16	61.38	47.86	48.89	41.48	41.09	40.74	40.43	40.14

## 14.5 Public lighting

### 14.5.1 Overview

We provide public lighting services for 67 customers throughout South Australia, including local councils and the South Australian Department of Planning, Transport and Infrastructure (**DPTI**).

Public lighting services are defined as:

- the operation, maintenance, repair and replacement of public lighting assets;
- the alteration and relocation of public lighting assets; and
- the provision of new public lights.

Public lighting improves the safety and amenity of our local communities through the supply, installation and maintenance around 230,000 public lights across South Australia. We are actively working with our public lighting customers to upgrade street lighting with energy efficient light emitting diodes (**LEDs**), providing improved outcomes for our customers and local communities.

The AER in its final F&A proposed to classify public lighting services as an ACS for the 2020–25 RCP, which is consistent with the classification of public lighting services by DNSPs in other jurisdictions. This is a change from the current classification in South Australia, where public lighting services are classified as NDS. As ACS, the AER will set price caps for public lighting services that reflect the efficient costs of providing the service.

We accept the AER’s approach to classify public lighting services as ACS and apply a price cap form of control. We propose to apply a building block approach to determine the efficient costs of providing public lighting services under the price cap control mechanism. Our detailed response to the AER’s proposed classification of services is set out in Attachment 12 – Classification of services.

As a NDS, SA Power Networks currently enters into formal contracts with public lighting customers for the provision of public lighting services. The term of these contracts often spans the useful life of luminaires installed.

The matter of long term contracts was raised during the F&A process but was not formally considered by the AER in the final F&A issued in June 2018. To understand the level of importance of this matter to our public lighting customers, we sought feedback as part of our public lighting survey issued in November 2018. In this survey, 94% of respondents indicated that price certainty is important for their organisation. Of these respondents, 93% indicated a 5-year price certainty period is acceptable to their organisation. Only 1 respondent provided a preference for a 10-year pricing period. Further detail on the public lighting survey is contained in section 14.5.2 below.

In line with feedback from our public lighting customers, we have not proposed any alternate long-term pricing options for public lighting. We will instead adopt the AER’s price cap form of control for all public lighting services for the 2020-25 RCP, with all public lighting customers transitioning to the AER approved prices from 1 July 2020.

Proposed price outcomes vary according to the build-up of costs for each individual light and the selected service package. Preliminary forecasts indicate customers would see an average increase of approximately 6% in their annual bill for public lighting services from 1 July 2020 (based on public lighting assets installed as at December 2018). The actual charges for public lighting will be determined based on the public lighting assets installed at the time of billing.

Our proposed public lighting charges for the 2020-25 RCP have been developed in accordance with the AER’s price cap formula set out in the F&A and as detailed in section 14.6. Our proposed indicative prices for public lighting services are set out in Attachment 17 - Tariff Structure Statement (Appendix I).<sup>21</sup>

#### **14.5.2 Customer feedback**

Our customer engagement program sought to understand the expectations and priorities of our customers, so we could make sure that our proposal for 2020-25 RCP is in their long-term interests.

In recent years we have engaged extensively with public lighting customers on service levels and pricing options. Individual arrangements are currently negotiated directly with public lighting customers. Our customers are supportive of the negotiated outcomes achieved to date. We proposed to transition all public lighting services to a consistent service level framework from 1 July 2020, where the current negotiated services agreement will form the basis of this framework. Amendments will be developed in consultation with our public lighting customers.

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<sup>21</sup> Charges applicable for negotiated services for the 2015-20 RCP are contained within Supporting Documents 14.9 - Network Negotiated Services & Public Lighting – 2015\_16, 14.10 - Network Negotiated Services & Public Lighting – 2016\_17, 14.11 - Network Negotiated Services & Public Lighting – 2017\_18 and 14.12 - Network Negotiated Services & Public Lighting – 2018\_19.

## Public Lighting engagement



In April 2018, we conducted a workshop with public lighting customers to consult on the reclassification of public lighting services as an ACS. Further workshops were held in August and November 2018.

We have used a building block approach to determine the efficient costs of providing public lighting services, which include luminaire capital, luminaire operating, infrastructure capital, infrastructure operating, and administration and systems support costs. This building block approach enables us to continue to support pricing flexibility and customer choice, aligned with the current negotiating framework, as approved by the AER in 2015. Price options vary depending on the service 'package' selected by customers. In a November 2018 workshop attended by public lighting customers and the AER, we outlined our building block approach which received wide support.

Following this workshop, we issued a public lighting survey to all public lighting customers to gather direct feedback on key topics of relevance in preparing our public lighting proposal. We received responses from 22 councils, representing a 33% response rate. Feedback is detailed in Table 14.11 below.

In collaboration with the Local Government Association (**LGA**), a smaller Public Lighting Working Group (representative of the broader public lighting customer base) has been established. This working group will assist with the ongoing consultation associated with our Proposal, the transition to ACS, and the development of our service level framework for public lighting services.

Constructive feedback received through our engagement has assisted with the build-up of our overall proposal and is summarised in Table 14.11.

**Table 14.11: Customer engagement survey feedback summary for public lighting services**

What we heard	Our Response	Evidence
<b>Technology development</b> Majority of our public lighting customers are supportive of the transition to LED lighting.	We are continuing to consult with councils and DPTI to proactively upgrade the remaining lights to LEDs where cost effective	97% supported the transition to LED lighting, with 3 respondents having completed a large part of their upgrade, 8 with roll-outs underway, and 8 in active discussions. For those customers who have not yet commenced upgrades, most expect to upgrade in the next 1 – 4 years.
Majority of our public lighting customers are also interested	We will continue to collaborate with public lighting customers on the introduction of new	94% of respondents indicated an interest in smart lighting services.

What we heard	Our Response	Evidence
in smart lighting services (including smart controls).	technology. New services will be introduced through our Annual Pricing Proposal ( <b>APP</b> ).	
<b>Price certainty</b> Majority of our public lighting customers value price certainty for public lighting services.	We have not proposed any alternate long-term pricing options for customers. We will adopt the AER's price cap control mechanism for all public lighting services.	94% supported price certainty, with most indicating the 5-year regulatory period provided adequate certainty. Only 1 respondent indicated a preference for 10-year price certainty.
<b>Access gateway/portal</b> Most of our public lighting customers support the development of a new access gateway/portal to improve access to information.	We have proposed \$300,000 in capex 2020/21 to finalise the development of a dedicated public lighting customer portal. This work is expected to commence in 2018/19 in collaboration with the public lighting working group.	84% of respondents were either very supportive or fairly supportive of the initiative. Only 2 respondents indicated they are fairly unsupportive of the initiative.
<b>Levels of service</b> The level of support for service levels varied greatly across our public lighting customers, with most customers comfortable with the levels of service proposed.	We have further engaged with the public lighting working group to understand survey results and any changes that may be required to the service levels we have used to develop our pricing proposal.	An average of 76% of respondents were comfortable with service levels, with 45% very or fairly supportive of service levels and 31% remaining neutral. Most negative responses were associated with billing, current reporting, and cost-effective services.
<b>Postage stamp pricing</b> Most public lighting customers support the retention of postage stamp pricing for all operating and maintenance costs, with metro/regional pricing for luminaire installations.	We have retained postage stamp pricing for all operating and maintenance costs, with a new metro/regional price introduced for luminaire installations.	68% of respondents support postage stamp pricing for operating and maintenance costs, with a metro/regional price for new installations or upgrades.
<b>Column pricing</b> Most public lighting customers support the recovery of infrastructure capital (column, cable replacement) costs through the public lighting asset base ( <b>PLAB</b> ), with costs recovered across all customers.	We propose to add all infrastructure capital costs as additions to the PLAB, with these costs recovered through PLAB recovery over a 28-year period.	71% of respondents support the continued recovery of column infrastructure replacement costs through the PLAB.
<b>Luminaire recovery period</b> Public lighting customers had mixed views about the recovery period for new luminaires, while most supported a 17-year recovery period, a number of customers recommended a 20-year period, with a small number	We propose to retain the luminaire recovery period at 17 years.	58% of respondents supported a 17-year capital recovery period for new luminaires installed, with 7 respondents supporting 20 years, 2 supporting 15 years, and 2 supporting 10-year recovery.



What we heard	Our Response	Evidence
<p>suggesting a shorter recovery period apply.</p> <p><i>“Can SAPN develop a standard contract clause that addresses the ACS changes commencing in 2020?”</i></p>		<p><i>“Thank you for providing the workshop and your efforts to collaborate openly.”</i></p> <p><i>“I believe postage stamp pricing should apply for both installation and maintenance of lights in both city and regional areas. It seems unfair to postage stamp price everything else except charge for regional installations.”</i></p>

### 14.5.3 Public lighting assets

There are approximately 230,000 luminaires / public lighting installations across our network. The delivery of public lighting services requires the ongoing maintenance, inspection, and operation of these public lighting installations. Public lighting services also include the design, procurement and construction of new public lighting installations as requested by public lighting customers.

Each public lighting installation has several asset components:

- **Lamp** – Light globe that produces the illumination, lamps are mounted inside traditional high intensity discharge (**HID**) luminaires.
- **PE Cell** – Photo-electric cell which switches the light on in low light conditions<sup>22</sup>.
- **Luminaire** – Luminaire that distributes, filters or transforms the light transmitted from a light source, including lamps or LED modules.
- **Bracket** – Supporting structure to hold or extend the luminaire from a pole.
- **Pole / Column** – Structure that elevates the luminaire assembly above the ground, may be distribution network poles or dedicated lighting columns and poles.

The public lighting asset consists of a range of lamps, luminaires, PE cells, brackets, columns and associated wiring. SA Power Networks has a wide range of lamp types (globes) on its public lighting system. This has developed as technology changes have occurred and trends have altered across the world.

As at July 2018, about 35,000 (15%) of luminaires installed have been upgraded to more energy efficient LEDs, providing improved energy and maintenance outcomes for our public lighting customers<sup>23</sup>. 97% of public lighting customers have indicated their support for the transition to LED lighting. As a result, we are continuing to work with public lighting customers to proactively upgrade the remaining HID public lighting installations to LEDs where cost effective.

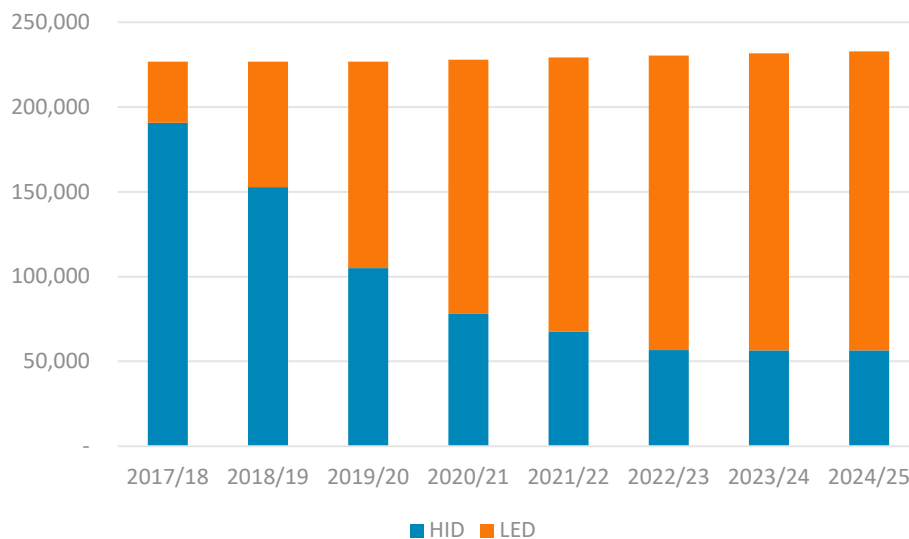
Figure 14.5 provides the expected transition from HID lights to LED's, with 74% of public lighting installations forecast to be converted to LEDs by 30 July 2025. We expect a growth rate of 1,200 public lighting installations per annum, with these installations expected to be LED installations.

The remaining volume of HID public lighting installations reflects:

- **'Post top' (decorative) luminaires** – which do not currently have a suitable LED replacement; and
- **Customer luminaires** – where replacement is the responsibility of the public lighting customer (Energy Only (**EO**) and Customer Light Equipment Rate (**CLER**) lights).

<sup>22</sup> D2 PE Cells are used in 'P' category (pedestrian / minor roads) HID lights, with NEMA PE cells used for all 'V' category (vehicular / main roads) and LED lights.

<sup>23</sup> With each new LED installed, public lighting customers reduce energy costs and greenhouse emissions by about 80%.

**Figure 14.5: Forecast transition from HID to LED luminaires**

Public lighting technology is continuing to change, with the evolution of smart lighting services. We are working with smart city technology providers to develop a cost-effective and ongoing smart lighting management platform that we can roll out in South Australia. Smart street lighting with remote monitoring enable automatic reporting of failures, improving maintenance outcomes for public lighting customers. Smart lighting services, such as smart controls can allow lights to be dimmed when streets are not used or ensure enhanced brightness for specific events or safety reasons. We will continue to explore this technology in collaboration with our public lighting customers, with approximately 94% of our public lighting customers indicating they are interested in smart control technology.

The AER has recognised this ongoing technology evolution, classifying emerging public lighting technology as ACS for the 2020-25 RCP. This classification enables SA Power Networks to introduce emerging public lighting technology products in a timely manner, without having to wait until the commencement of the 2025-30 RCP. We propose to include any new products as part of our APP.

#### 14.5.4 Public lighting services

The provision of public lighting services, and associated maintenance and replacement responsibility, is determined in accordance with the public lighting service ‘package’ selected by public lighting customers.

Public lighting customers can choose which public lighting service offering best suits their individual circumstances, including who funds the initial asset installation and future replacement, and who is responsible for the operational maintenance of the public lighting installations once installed. Our pricing proposal has been developed to continue to provide this flexibility in public lighting service offerings to our public lighting customers.

Our proposed public lighting service packages are as follows:

- **SA Power Networks (SAPN) or Street Light Use of System (SLUOS)** – Where we have funded the public lighting installation and provide a full maintenance service for approximately 85% of installed public lighting assets (poles and lights).
- **Transferred Infrastructure (TFI)** - Customers or developers fund the installation of new public lighting assets and gift the public lighting installation to us following completion. We then assume full maintenance responsibility for the public lighting installation, including responsibility for future replacement of the installation at the end of its useful life.

- **EO** - Customers fund the installation of the public lighting assets and retain ongoing responsibility for maintenance and replacement of these public lighting installations. Our responsibility for these assets is administrative only, with the public lighting installations recorded in our Geographic Information System (**GIS**) and any faults received forwarded to the public lighting customer for their action.
- **CLER** - Customers fund the installation of the public lighting assets, with SA Power Networks maintaining minor components (eg lamps). The customer retains responsibility for the future replacement of all major public lighting installation components.
- **Public Light Customer (PLC)** - With the introduction of LED lighting, a further service offering was introduced. Under this service offering, we undertake routine maintenance of the public lighting installation and have responsibility for future replacement of public lighting infrastructure (poles). The public lighting customer will retain financial ownership and be responsible for replacement cost of the luminaire.

Table 14.12 provides further details on the ownership and maintenance responsibilities for each public lighting service package.

**Table 14.12: Public lighting maintenance and replacement responsibilities by service package**

<b>Service Package</b>	<b>Description</b>	<b>Ownership</b>	<b>Installation / Replacement</b>	<b>Operation and Maintenance</b>
<b>SAPN / SLUOS</b>	SA Power Networks funds luminaire / infrastructure installation or upgrade.	SA Power Networks	SA Power Networks	SA Power Networks
<b>TFI</b>	Lighting luminaire / infrastructure is transferred ('gifted' or 'vested') to SA Power Networks.	SA Power Networks	SA Power Networks	SA Power Networks
<b>PLC</b>	Customer funds the luminaire installation or upgrade. SA Power Networks funds the installation and upgrade of infrastructure. SA Power Networks maintains assets over their life.	Public Lighting Customer (Luminaire) SA Power Networks (Infrastructure)	Public Lighting Customer (Luminaire) SA Power Networks (Infrastructure)	SA Power Networks
<b>CLER</b>	Customer funds all public lighting assets. SA Power Networks maintains assets over their life.	Public Lighting Customer	Public Lighting Customer	SA Power Networks (minor components)
<b>EO</b>	Customer funds and retains ownership of all public lighting equipment and maintenance responsibilities.	Public Lighting Customer	Public Lighting Customer	Public Lighting Customer

Where we are responsible for maintenance, we will maintain the public lighting installation to ensure public lighting installation continues to provide the initially agreed lighting levels.

SA Power Networks will offer to install new public lighting installations or replace existing public lighting installations under a PLC offering, where the customer will fund the installation up-front. This public lighting installation service has been included, and will be priced, as a quoted service (refer to section 14.4).

A summary of the components of our public lighting services is set out below, with further detail available in Supporting Document 14.5 – Public Lighting Asset Management Plan.

#### 14.5.4.1 Luminaire maintenance

Luminaire maintenance revolves around three key processes:

- the reactive repair of lights on failure via the Single Light Out (**SLO**) system;
- a proactive bulk replacement process for HID public lighting installations; and
- the testing and cleaning of LED public lighting installations.

Public lighting faults are reported by customers through our online SLO reporting tool or by phoning our call centre. Field crews will attend the relevant site with the aim of rectifying 98% of faults within 5 business days for metro areas and 10 business days for regional areas. Faults may be associated with the lamp, PE cell, wiring or the luminaire. Crews carry spares when attending faults to reduce the need for a second visit to rectify the fault. For SLO maintenance, we utilise a services contract in the metro area (which has a high density of lights) and local depot staff in regional areas (which has a low density of lights), with this mix providing the most efficient outcome for public lighting customers.

Bulk lamp replacement is a proactive program to minimise the failure rate of lighting components (eg lamps) and to maintain lighting levels. Bulk lamp replacement is only applicable for Category ‘P’ (minor road) lighting. The replacement period (as detailed in Table 14.13) is determined based on the age of the component and their associated failure rates. The luminaire will be visually inspected and cleaned at each lamp or PE cell change.

**Table 14.13: Planned bulk replacement of HID components**

Luminaire Type	Size (W)	Lamp Replacement	PE Cell Replacement
<b>Category ‘P’</b>			
Compact Fluorescent	32, 42	4 Years	8 Years
Fluorescent	20, 40	2 Years	8 Years
High Pressure Sodium	50	3 Years	8 Years
Mercury Vapour	50, 70, 80	4 Years	8 Years

Historically the bulk lamp replacement program has resulted in the replacement of approximately 30,000 lamps per year, with this number reducing in line with the penetration of LEDs. Bulk replacement activities are delivered through a services contract for both metro and regional public lights.

Bulk lamp replacement is not completed on Category ‘V’ (main road) lights. Due to the high cost associated with these lights, they are maintained on a ‘run to fail’ basis. Further detail on the maintenance strategy for Category ‘V’ lighting is provided within our public lighting asset management plan (see Supporting Document 14.5 – Public Lighting Asset Management Plan)

LED globes are integrated into the luminaire and do not require any component replacement over the life of the luminaire. LEDs are also installed with a NEMA PE cell, with an estimated useful life of 20 years<sup>24</sup>. These PE cells will only be changed on failure.

<sup>24</sup> NEMA PE cell 20-year life aligns with the useful life of the LED luminaires



While no lamp or PE cell replacement program is required for LED lights, the lights will require regular cleaning to maintain lumen output in accordance with lighting standards. We propose to clean LED lights every 5 years. To assist us in validating the prudence of a 5-year cleaning cycle, we propose to undertake lux testing of a portion of installed LEDs. This testing is proposed to be completed after the LED has been installed for 4 years, 1 year prior to the scheduled LED cleaning cycle. We propose to test approximately 25% of LED's, covering high pollution and low pollution areas. This test will be conducted from the ground and confirm the light output from the LED compared to installed standards. We will use this data to adjust our cleaning cycles in the future if required.

If a LED fault occurs, the entire luminaire will be replaced. A warranty period is applicable to new LEDs installed, where we will return faulty luminaires to the manufacturer for replacement. While warranty will cover the cost of a replacement luminaire, it does not extend to the labour costs associated with completing the replacement activity.

It is important to note that following the introduction of LED technology, manufacturers of public lighting equipment are responding by ceasing HID manufacturing. This means some HID luminaires and lamps are no longer commercially available. In this instance, we will replace the luminaire with an equivalent output LED luminaire on lamp or HID luminaire failure, with this light placed on a 'SAPN LED tariff' to enable capital recovery over the life of the asset.

#### **14.5.4.2 Pole / column maintenance**

Public lights may be attached to a distribution stobie pole (shared pole) or a dedicated streetlight column or pole. Inspection and maintenance activities associated with shared poles is included within SCS. Public lighting customers only bear the inspection and maintenance costs associated with dedicated streetlight columns.

We are responsible for approximately 70,000 dedicated streetlight columns across our network, with the oldest columns installed in 1956. Columns are inspected on average every 7.5 years. Columns in high corrosion zones are inspected on a 5-year cycle and columns in low corrosion zones on a 10-year cycle. Inspections are focussed on the condition of the column, enabling identification of assets for replacement prior to asset failure. We plan to replace approximately 150 columns (0.2% of columns) annually, with these columns identified through our column inspection program. Currently 6% of the 9,000 columns inspected annually need replacement, where the columns inspected are in older areas and high corrosion zones. We forecast this replacement volume to reduce to around 2% of inspected columns from 2020/21 as inspection moves to lower corrosion zones.

Columns will also be replaced reactively when faults are reported that require immediate rectification (eg a customer reported fault). Reactive column replacements are forecast using the average replacements for the past 4 years.

#### **14.5.5 Minimum service standards**

Our public lighting proposal has been developed based on delivering the following minimum service levels for public lighting customers:

- operate public lighting assets safely, efficiently and effectively over their economic life;
- maintain compliance of the lighting levels to within 70% of the level applicable when public lighting installation was initially commissioned;
- repair 98% of public lighting faults, for which we are responsible, within 5 business days (metro) or 10 business days (for all other areas);

- where faults are not repaired within 5 business days (metro) or 10 business days (for all other areas), we will pay the first person who reported the fault \$25 for each period (5 business days or 10 business days depending on its location) in which the streetlight is not repaired<sup>25</sup>;
- replace HID category 'P' road lamps at least every 4 years or otherwise as required to maintain luminance output and minimise SLO lamp failures;
- clean luminaires to maintain luminance output, with HID lights cleaned at the time of a lamp change and LED lights cleaned every 5 years;
- operate a 24-hour call centre and online reporting tool for members of the public and public lighting customers to report faults;
- where a fault is reported, for which we are not responsible, we will notify the public lighting customer of the outage within one business day of receiving the outage report;
- invoices for public lighting services, specifying lamp types and volumes, will be issued by the 6<sup>th</sup> working day of the month, for the preceding month;
- public lighting asset data, including luminaire details and locations, will be provided to public lighting customers monthly;
- operational reports, detailing fault performance, will be provided to public lighting customers quarterly for the preceding quarter;
- all public lights assets mapped in SA Power Networks' GIS system, with GIS data provided to public lighting customers annually; and
- energy / carbon reporting will be provided to all major customers every six months.

SA Power Network will provide performance reports to each public lighting customer detailing performance against minimum service standards on an annual basis.

The proposed service levels are contained within our public lighting asset management plan. These service levels will also be incorporated into the proposed public lighting service level framework, which is intended to apply from 1 July 2020. This service level framework will be developed in consultation with our public lighting customers.

As part of our engagement with public lighting customers, we asked our customers for their views on our proposed service level. Of the 33% of public lighting customers who responded to our survey, 76% indicated they are either supportive (45%) or neutral (31%) about the proposed service levels.

Currently, a GSL payment of \$25 for each period (5 business days for metropolitan areas, and 10 business days for all other areas) in which the street light is not repaired is payable to the first person to report the fault. The Essential Services Commission of South Australia (**ESCoSA**) has recently completed a review of the reliability framework that will apply to SA Power Networks for the 2020-25 RCP, with no changes made to the GSL payment arrangements for public lighting.

#### 14.5.6 Pricing methodology

We have used a building block approach to determine the efficient cost of providing public lighting services. This building block approach enables us to continue to support pricing flexibility and customer choice, aligned with the current negotiated pricing framework. Charges vary depending on the service package selected by customers.

We have developed a Public Lighting Pricing Model for the purposes of determining the public lighting prices for the 2020-25 RCP (see Supporting Document 14.6 – Public Lighting Pricing Model). The model contains the proposed unit costs for labour and materials categories using the building block approach to determine the efficient cost of providing public lighting services.

<sup>25</sup> Electricity Distribution Code 12.1, section 2.3.1(c)

There are five components used in determining public lighting prices – luminaire capital, luminaire operating, infrastructure capital, infrastructure operating, and administration and systems costs. Table 14.14 details the components that apply to build up pricing for each service package.

**Table 14.14: Price components applicable to each service package**

Component	EO	CLER	PLC	TFI	SAPN	SLUOS
Luminaire Capital				✓ <sup>26</sup>	✓	✓
Luminaire Operating		✓	✓	✓	✓	✓
Infrastructure Capital			✓	✓	✓	✓
Infrastructure Operating			✓	✓	✓	✓
Administration & Systems	✓	✓	✓	✓	✓	✓

#### 14.5.6.1 Luminaire capital

Luminaire capital provides for the recovery of capital costs associated with the installation of new luminaires where SA Power Networks funds the installation, this is applicable for public lighting assets within the SAPN and SLUOS service packages<sup>27</sup>. The luminaire capital price component is calculated as an annuity. The rate of return is consistent with that applied for SCS (see Attachment 3 – Rate of Return).

As part of our engagement, we asked our public lighting customers if they were supportive of a 17-year recovery period for new luminaires installed, this is consistent with our current negotiated pricing. Most customers (58% of respondents) supported the 17-year recovery period, with 23% recommending a 20-year recovery period (which aligns with the useful life of the luminaire), and a small number suggesting a shorter recovery period of 10 or 15 years.

Following consideration of customer feedback, we propose to continue to apply the 17-year recovery period for new luminaires installed. At the end of this period, these lights will transition to a PLC price, where no further luminaire annuity charges are applicable. SA Power Networks bears the risk associated with luminaire recovery beyond the 10-year warranty period. If the luminaire fails after the 10-year warranty period, but prior to the end of the 17-year recovery period, the light will move across to a new luminaire annuity associated with the new installation. In this instance, we will forfeit the unrecovered capital from the initial installation.

Where a public lighting customer chooses to replace a luminaire or transition to a different service package (such as the PLC) prior to the end of the recovery period, a transition cost will be applicable. This transition cost will reflect the written down value of the luminaire. The written down value is calculated as the present value of the luminaire installation cost less the cumulative payments made in respect of the luminaire. These values will be determined in accordance with our Public Lighting Pricing Model (see Supporting Document 14.6 – Public Lighting Pricing Model).

To improve the cost reflectivity of public lighting services, we propose to retain a regional price for the luminaire annuity, including the additional costs associated with mobilisation of work crews in regional areas. This is consistent with current negotiated public lighting prices for new installations. These installation costs will be recovered over the annuity period, providing an estimated increased regional annuity charge per light of up to 5% per annum. This proposal received support from 68% of public lighting customers. Noting some customers suggested that installation services should be subject to the same postage stamp pricing arrangements as operating and maintenance costs.

TFI lights will attract a small luminaire capital annuity to recover the future costs associated with the replacement of the luminaire at the end of its useful life. For these assets initial installation was funded by the public lighting customer or developer, with the asset then transferring to SA Power Networks at

<sup>26</sup> Limited to capital associated with future replacement of the luminaire at the end of its useful life

<sup>27</sup> Luminaire capital is applied to TFI category lights associated with the replacement of the luminaire at the end of its useful life

completion. Replacement of TFI luminaires on failure or at the end of its life is the responsibility of SA Power Networks. This capital cost will be recovered over the life of the asset.

#### 14.5.6.2 Luminaire operating

The luminaire operating component reflects the costs associated with luminaire maintenance. This includes reactive SLO work, proactive inspection and cleaning, and bulk replacement activities (for applicable HID installations).

Historical fault data has been used to forecast future failure rates for luminaires and their components, resulting in different operating costs for each luminaire installed.

We propose to retain postage stamp pricing for the recovery of operating and maintenance costs, where metro and regional customers will pay the same for operation and maintenance of the same light type irrespective of the location of the public lighting installation. This is consistent with the SA Government policy position on regional pricing for small customers. Postage stamp pricing is supported by our public lighting customers, with 68% of customers preferring to retain postage stamp pricing for the 2020-25 RCP.

#### 14.5.6.3 Infrastructure capital

Infrastructure capital provides for the return of and on the PLAB.

The opening PLAB valuation for public lighting services as at 1 July 2020 has been determined within the RFM, allowing for actual and forecast public lighting capital expenditure and depreciation<sup>28</sup>.

In July 2016, we commenced recovering the costs of newly installed luminaires through an annuity, with these luminaires no longer resulting in additions to the PLAB. We propose to continue to apply an annuity model to the luminaire recovery for the 2020-25 RCP.

For the 2020-25 RCP, we propose to continue to assign infrastructure capital costs associated with column, bracket, and cable replacements to the PLAB. These costs will be recovered across the broader public lighting customer base. As part of our engagement, we asked our public lighting customers if they were supportive of this approach to infrastructure recovery. 71% of public lighting customers indicated their support for this funding arrangement.

We have adopted straight-line depreciation to calculate the depreciation allowance. A standard life of 28 years has been applied for public lighting assets, with a remaining life of approximately 18 years as at 1 July 2020. Forecast depreciation schedules have been determined based on the roll forward of the opening asset base and the forecast capex for non-contributed public light assets. The AER's PTRM has been used to calculate the depreciation forecast for the 2020-25 RCP (as shown in Table 14.15).

As discussed in section 7.5 of Attachment 7 – Corporate Income Tax, as new AER models reflecting the recommendations from the AER's final report in relation to its review of the regulatory tax approach are not currently available to properly calculate the estimated costs of corporate income tax and the regulatory tax allowance, our Proposal does not contain detailed workings for the tax building block. Instead, we have used a placeholder value of \$1 for the building block for the estimated costs of corporate income tax.

**Table 14.15: Roll forward of PLAB for 2020-25 RCP**

<b>\$m, nominal</b>	<b>2020/21</b>	<b>2021/22</b>	<b>2022/23</b>	<b>2023/24</b>	<b>2024/25</b>
Opening PLAB (1 July)	43.3	43.5	43.1	42.8	42.5

<sup>28</sup> The PLAB valuation is subject to an open dispute which is currently before the AER for decision. The outcome of this dispute may result in changes to the opening PLAB value as at 1 July 2020. Updates, as may be required, will be applied to our Revised Proposal once the final decision is handed down by the AER.

<b>\$m, nominal</b>	<b>2020/21</b>	<b>2021/22</b>	<b>2022/23</b>	<b>2023/24</b>	<b>2024/25</b>
Forecast capex / additions	1.5	1.1	1.4	1.4	1.5
Depreciation	(2.4)	(2.6)	(2.7)	(2.8)	(3.0)
Inflation on opening PLAB	1.1	1.1	1.1	1.1	1.0
Closing balance (30 June)	43.5	43.1	42.8	42.5	42.1

We have applied a consistent rate of return to ACS, as applied to SCS set out in Attachment 3 – Rate of Return.

#### **14.5.6.4 Infrastructure operating**

The infrastructure operating component reflects the costs of completing column inspections, associated column repairs, and cables repairs, resulting from SLO faults. Historical data has been used to forecast future infrastructure operating expenditure.

Columns are inspected on average every 7.5 years, with high corrosion zones inspected on a 5-year cycle and low corrosion zones on a 10-year cycle. Inspections are focussed on the condition of the column, wiring, and earth, reducing risk of in-service column failure and potential for the column to cause an electric shock. Further detail is available in our public lighting asset management plan (refer to Supporting Document 14.5 – Public Lighting Asset Management Plan).

#### **14.5.6.5 Administration and systems**

Administration and systems costs reflect the administrative costs directly attributed to provision of public lighting services. This includes systems and GIS data maintenance, SLO reporting, customer management, and asset management functions.

Following feedback from our public lighting customers, we propose to undertake a detailed asset data audit to validate public lighting billing data with assets physically installed in the field. This audit is estimated to cost on average \$0.60 per light per annum over the 2020-25 RCP.

We do not propose to charge public lighting customers for the direct costs associated with the operation and maintenance of shared poles used to support public lighting infrastructure, with these costs forming part of SCS. Consistent with current negotiated service agreements, we propose to charge a use of pole charge for public lighting installations on shared poles. This use of pole charge is for the right to access stobie poles to attach public lights. It is not associated with the act of attaching lights to poles. Rather it is analogous to the provision of an easement for the right to attach a light to a pole as an alternative to charging a customer for the erection of a dedicated lighting column for that light. The presence of public lighting means that it takes longer to perform standard functions than would otherwise be the case, these costs would be avoided if the public lighting installations were not there.

ESCoSA reviewed the application of use of pole charges for public lighting in 2000<sup>29</sup> and 2009<sup>30</sup>, in both cases confirming that some form of use of pole charge would be “fair and reasonable”. We also engaged Incenta Economic Consulting to conduct an independent review of the use of pole charge and application to public lighting in 2017<sup>31</sup>. This review concluded that a charge for use of pole with respect to the public lighting service is justified in the context of economic efficiency and the National Electricity Objective (NEO). We have proposed a use of pole charge of \$8 per Stobie pole, which is the minimum rate recommended by Incenta Economic Consulting in its final report.

<sup>29</sup> SAIIR PUBLIC STREET LIGHTING TARIFFS FINAL REPORT - November 2000 Section 3.7 Table 3.5 page 41.

<sup>30</sup> ESCoSA ETSA UTILITIES' PUBLIC LIGHTING EXCLUDED SERVICES CHARGES FAIR AND REASONABLE DETERMINATION – December 2009 Section 4 paragraphs 199 and 170 page 32

<sup>31</sup> Incenta Economic Consulting - 'Economic justification for a public lighting elevation charge' report for SA Power Networks October 2017

### 14.5.7 Public lighting revenue

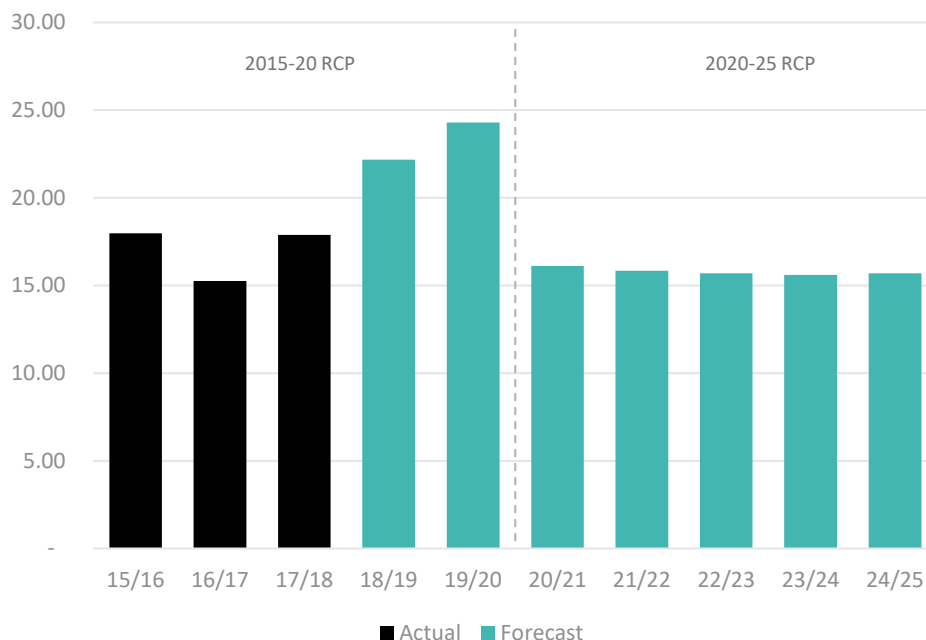
Our proposed revenue forecast for public lighting services for the 2020-25 RCP is \$79m.

Public lighting revenue for the 2015-20 RCP and forecast revenue for the 2020-25 RCP is provided in Figure 14.6 and Table 14.16 below. Revenue will vary as the volume and type of lights installed changes.

Actual revenue for 2017/18 regulatory year and forecast for 2018/19 and 2019/20 regulatory years includes revenue associated with the installation of LED's, where the installation cost was wholly funded by the customer at the time of installation. No forecast for customer funded LED installations has been included for 2020-25 RCP, this will be treated as a quoted service from 1 July 2020.

We expect about 65% of lights to be converted to LED by 1 July 2020, with an additional 10% of lights expected to be converted prior to the end of the 2020-25 RCP. We also forecast about 1,200 new lights to be installed each year, with these lights expected to be LED installations.

**Figure 14.6: Actual and forecast public lighting revenue for the 2015-20 and 2020-25 RCPs (\$m, June 2020)**



**Table 14.16: Actual and forecast public lighting revenue for the 2015-20 and 2020-25 RCPs (\$m, June 2020)**

	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
Actual / Forecast	17.97	15.26	17.88	22.17	24.30	15.84	15.70	15.61	15.61	15.64

## 14.6 Form of control mechanism

As mentioned above, the AER proposes to apply caps on the prices of individual services (price caps) for ACS in the 2020-25 RCP, in accordance with clause 6.2.5 of the NER.

The basis of the control mechanism is the method used to calculate the prices to be set for a group of services. The basis of control has been built into the pricing models developed for each service as follows:

- **Legacy metering services (type 5 and type 6)** – A building block approach has been applied for the 2020-25 RCP.
- **Services charged on a fixed fee or quoted basis** – A formula-based approach (cost-build up approach) will be applied in the first regulatory year and then a price path for the remaining regulatory years of the 2020-25 RCP.
- **Public lighting services** – A building block approach has been applied for the 2020-25 RCP.

SA Power Networks has proposed prices and pricing parameters that comply with the AER’s pricing control mechanism and formula as set out in the final F&A. Refer to the pricing models for detail of the basis of control. The X-factors for the 2020-25 RCP will reflect the change in annual prices (on top of CPI) as detailed in our pricing models. See Supporting Documents 14.2 – Metering Model and PTRM, 14.4 – Fixed-fee and Quoted Services Pricing Model, and 14.6 – Public Lighting Pricing Model.

SA Power Networks will demonstrate compliance with the pricing control mechanism and formula for ACS by proposing prices that comply with the formula in its APP for each year of the 2020-25 RCP.

#### 14.6.1 Fee based services

The price cap formula to be applied to legacy metering, public lighting and ancillary fee-based services is as follows:

$$p_t^{-i} \geq p_t^i \quad i=1, \dots, n \text{ and } t=1, 2, \dots, 5$$

$$p_t^{-i} \geq p_{t-1}^{-i} \times (1 + CPI_t) \times (1 - X_t^i) + A_t^i$$

Where:

$p_t^{-i}$  is the cap on the price of service i in year t.

$p_t^i$  is the price of service i in year t. The initial value is to be decided in the 2020-25 distribution determination.

$p_{t-1}^{-i}$  the cap on price of service i in year t-1.

t is the regulatory year.

$\Delta CPI_t$  is the annual percentage change in the ABS consumer price index (CPI) All Groups, Weighted Average of Eight Capital Cities<sup>32</sup> from the December quarter in year t-2 to the December quarter in year t-1, calculated using the following method:

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the December quarter in regulatory year t-1

divided by

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the December quarter in regulatory year t-2

minus one.

<sup>32</sup>If the ABS does not, or ceases to, publish the index, then CPI will mean an index which the AER considers is the best available alternative index



$X_t^i$  is the X factor for service i in year t. The X factors are to be decided in the 2020-25 distribution determination and will be based on the approach SA Power Networks undertakes to develop its initial prices.

$A_t^i$  is the sum of any adjustments for service i in year t. Likely to include, but not limited to, adjustments for any approved cost pass through amounts (positive or negative) with respect to regulatory year t, as determined by the AER.

#### 14.6.2 Quoted services

The price cap formula we propose to apply to quoted services is as follows:

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

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. Labour is escalated annually by  $(1 + \Delta CPI_t)(1 - X_t^i)$  where:

$\Delta CPI_t$  is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities<sup>33</sup> from the December quarter in year t–2 to the December quarter in year t–1, calculated using the following method:

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for December quarter in regulatory year t–1

divided by

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the December quarter in regulatory year t–2

minus one.

For example, for the 2020/21 regulatory year, year t–2 is the December quarter 2018 and year t–1 is the December quarter 2019.

$X_t^i$  is the X factor for service i in year t. The X factor is to be decided in the 2020-25 distribution determination and will be based on the approach SA Power Networks undertakes to develop its initial prices.

*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 percent of the total costs of labour, contractor services and materials.

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<sup>33</sup> If the ABS does not, or ceases to, publish the index, then CPI will mean an index which the AER considers is the best available alternative index.

The first three terms are defined in accordance with the AER’s F&A. For the 2020-25 RCP, we propose to include a margin as a fourth term. As provided in section 14.4.2, the inclusion of a margin for fee-based and quoted services is consistent with the principle of competitive neutrality and the revenue and pricing principles contained within the NEL, where customers pay an amount that is commensurate with the prices that would be observed in a competitive market.

We note that TasNetworks’ proposed a similar change to their quoted services formula in its recent regulatory proposal.<sup>34</sup> This proposal was accepted by the AER in its draft decision in September 2018.<sup>35</sup> This decision was not available at the time of the finalisation of SA Power Networks’ F&A. The inclusion of the margin in the form of control formula for quoted services provides a more simplistic approach to applying the margin to quoted services, with the margin able to be applied at the end of the quoted services charge calculation as a fixed percentage. We consider this meets the criteria for a material change in circumstances.

### 14.6.3 New service identified within the 2020-25 RCP

We seek to be able to introduce new charges as part of our APP, where a new service is identified that falls within an existing ACS service group classification. This will provide us with the flexibility to provide new services to our customers without having to wait until the 2025-30 RCP.

For example, 94% of our public lighting customers have indicated an interest in new public lighting technology such as smart controls. As this technology is not yet fully developed, we are unable to propose a price for this service at this time. We propose to continue to collaborate with public lighting customers on the introduction of this new technology, with new services introduced through our APP when required.

New prices will be introduced in one of two ways:

- **Fixed-fee services** – where the service is consistent with the other fixed-fee services approved by the AER as part of our distribution determination for the 2020-25 RCP, we will create a new price using our approved pricing model with updates to the relevant inputs. This updated model will be submitted to the AER for approval with our APP; or
- **Quoted services** – where a fixed-fee price is unable to be developed the service will be charged on a time and materials (quoted) basis. New quoted services will be provided to the AER for approval as part of our APP.

<sup>34</sup> TasNetworks – Tasmanian Transmission Revenue and Distribution Regulatory Proposal 2019-2024, section 20.3, page 209.

<sup>35</sup> AER – TasNetworks Distribution Determination 2019 – 2024, Attachment 13 Control Mechanisms, September 2018, section 13.5.

## Shortened Forms

Alternative Control Services .....	ACS
Annual Pricing Proposal .....	APP
Australian Bureau of Statistics .....	ABS
Australian Energy Market Commission .....	AEMC
Australian Energy Market Operator .....	AEMO
Australian Energy Regulator .....	AER
Capital Expenditure .....	Capex
Cost Allocation Method .....	CAM
Consumer Price Index .....	CPI
Customer Light Equipment Rate .....	CLER
Deloitte Access Economics .....	DAE
Direct Control Services .....	DCS
Distribution Network Service Provider .....	DNSP
Department of Planning, Transport and Infrastructure .....	DPTI
Electricity Distribution Service Classification Guideline .....	EDSC Guideline
Electricity, Gas, Water and Waste Services .....	EGWWS
Energy Only .....	EO
Enterprise Bargaining Agreement .....	EBA
Essential Services Commission of South Australia .....	ESCoSA
Framework and Approach .....	F&A
Geographic Information System .....	GIS
High Intensity Discharge .....	HID
Light Emitting Diode .....	LED
Local Government Association .....	LGA
Metering Asset Base .....	MAB
Metering Coordinator .....	MC
National Electricity Law .....	NEL
National Electricity Objective .....	NEO
National Electricity Rules .....	NER
National Metering Identifier .....	NMI
Negotiated Distribution Service .....	NDS
Operating Expenditure .....	Opex
Public Lighting Asset Base .....	PLAB
Public Light Customer .....	PLC
Post Tax Revenue Model .....	PTRM
Regulatory Control Period .....	RCP
Regulatory Information Notice .....	RIN
Roll Forward Model .....	RFM
Standard Control Services .....	SCS
SA Power Networks .....	SAPN
Single Light Out .....	SLO
Street Light Use of System .....	SLUOS
Tariff Structure Statement .....	TSS
Transferred Infrastructure .....	TFI
Wage Price Index .....	WPI
Weighted Average Costs of Capital .....	WACC