

Attachment 14 Alternative Control Services

2020-25 Revised Regulatory Proposal 10 December 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 for South Australia. For information about SA Power Networks visit <u>sapowernetworks.com.au</u>

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Disclaimer

This document forms part of SA Power Networks' Regulatory Proposal to the Australian Energy Regulator for the 1 July 2020 to 30 June 2025 regulatory control period. The Proposal and its attachments were prepared solely for the current regulatory process and are current as at the time of lodgement.

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 Regulatory Control Period. 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
Attachment 1	Annual revenue requirement and control mechanism
Attachment 2	Regulatory Asset Base
Attachment 3	Rate of Return
Attachment 4	Regulatory Depreciation
Attachment 5	Capital expenditure
Attachment 6	Operating expenditure
Attachment 7	Corporate income tax
Attachment 8	Efficiency Benefit Sharing Scheme
Attachment 9	Capital Expenditure Sharing Scheme
Attachment 10	Service Target Performance Incentive Scheme
Attachment 11	Demand management incentives and allowance
Attachment 12	Classification of services
Attachment 13	Pass through events
Attachment 14	Alternative Control Services
Attachment 15	Negotiated services framework and criteria
Attachment 16	Connection Policy
Attachment 17	Tariff Structure Statement Part A
Attachment 17	Tariff Structure Statement Part B - Explanatory 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 provided to individual customers where the cost of each service can be assigned to, and recovered from, an individual customer. The AER sets price caps for ACS.

SA Power Networks submitted its regulatory proposal for the 2020-25 regulatory control period (**RCP**) in January 2019 (**Original Proposal**). In its draft decision on our Original Proposal (**Draft Decision**), the Australian Energy Regulator (**AER**) classified type 5 and 6 metering services (legacy metering services), various other metering related services, connection services (other than basic connection services), network ancillary services and public lighting services as ACS. We accept the AER's approach to service classification for ACS. Further details on service classification are set out in Attachment 12 - Classification of services.

This Attachment provides an outline of our Original Proposal and the AER's Draft Decision, and sets out our revised proposal for the 2020-25 RCP (**Revised Proposal**), for ACS.

For our Revised Proposal, we have grouped ACS under three sub-headings:

- legacy metering services including type 5 and 6 meter maintenance, reading and data services and legacy capital cost recovery;
- ancillary network services services closely related to common distribution services but for which a separate charge applies; and
- public lighting including the provision, construction and maintenance of public lighting installations and emerging public lighting technology.

Each of the three areas outlined above are covered in a separate section within this Attachment.

14.2 Metering Services

14.2.1 Overview

Following the introduction of metering contestability on 1 December 2017, distribution network service providers (**DNSPs**), including SA Power Networks, were deemed to be the initial metering coordinator (**MC**) for all existing 'legacy' type 5 and type 6 meters.

SA Power Networks no longer installs or replaces electricity meters, with this work being the responsibility of the relevant retailer's appointed MC. As the initial MC, we continue to be 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 data¹;
- 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;
- completing of in-service compliance testing to ensure the meters continue to comply with the accuracy requirements of the National Electricity Rules (**NER**);

¹ Special reading of legacy meters requested by retailers forms part of our fixed-fee services; refer to section 14.3 within this Attachment.

- inspecting and testing of our low voltage current transformers, in accordance with the NER; and
- notifying the relevant retailer of any failed legacy metering installation, either due to in-service failure of an individual meter or failure of a family of meters.

SA Power Networks substantially accepts the AER's Draft Decision for metering services, with the exception of labour cost escalation. We have applied the AER's Draft Decision Post Tax Revenue Model (**PTRM**) and Roll Forward Model (**RFM**) as the base for our Revised Proposal, but updated with the actual results for the 2018/19 regulatory year.

Our proposed indicative prices for legacy metering services for the 2020-25 RCP are set out in Attachment 17 - Tariff Structure Statement (Part A).

Table 14-1 below, provides a summary of the AER's Draft Decision and our Revised Proposal response.

	AER Draft Decision	Revised Proposal
Form of Control	In its Draft Decision the AER maintained its final Framework and Approach (F&A) to apply price caps to individual services as the form of control with prices to be set for the first year of the RCP and then escalated by Consumer Price Index (CPI) and an X-factor for subsequent years. The AER smoothed the prices for the 2020-25 RCP, and the X-factor will be nil value for the period.	SA Power Networks accepts the AER's form of control for metering services. We also accept the smoothing of prices for the 2020-25 RCP, with an X-factor of zero to apply.
Building block approach	The AER accepted SA Power Networks' building block approach.	We have retained the proposed building block approach and applied the AER's Draft Decision PTRM and RFM as the base for our Revised Proposal.
Accelerated depreciation	The AER accepted SA Power Networks' proposed accelerated depreciation. The AER considered the accelerated depreciation of half a year to have an immaterial impact on prices and would result in a lower administrative burden in the 2025-30 RCP.	We did not incur any new capital expenditure (capex) in 2018/19, resulting in the Metering Asset Base (MAB) remaining substantially the same as that originally proposed. Our Revised Proposal accelerates the MAB as accepted by the AER, with the MAB fully depreciated over the 2020-25 RCP.
Operating expenditure	The AER accepted SA Power Networks base- step-trend approach to operating expenditure. The AER expressed concerns about the absence of 2018/19 estimates in SA Power Networks calculations.	Our Metering Pricing Model and PTRM, submitted as part of our Revised Proposal, has been updated with 2018/19 actual results. We note that these updates provide only marginal changes from the AER's Draft Decision.
Labour escalators and rate of return	The AER applied labour escalators and rate of return consistent with Standard Control Services (SCS). We note that the AER changed its approach to forecasting labour escalators for the utilities sector in South Australia. Instead of applying an average of two consultants' forecasts, labour escalation was solely based on forecasts prepared by Deloitte Access Economics (DAE).	Consistent with SCS, BIS Oxford Economics (BISOE) identified additional factors that are influencing actual results that should be considered when applying the labour escalators for South Australia. As a result of this analysis, we have again applied an average of the latest BISOE and DAE labour escalation forecasts for the 2020-25 RCP.

Table 14-1: Summary of feedback on Original Proposal - Metering Services

14.2.2 Original Proposal

Legacy metering services charges for the 2020-25 RCP were developed in accordance with the AER's price cap formula set out in the AER's F&A.

Consistent with the 2015-20 RCP, we proposed legacy metering charges for the 2020-25 RCP that comprised two components:

- a capital charge associated with MAB return on and return of (depreciation) capital, to be charged to all customers who had legacy meters installed as at 1 July 2015²; and
- a non-capital charge reflecting our efficient operating expenditure (**opex**) to be charged to all customers with a current legacy meter installed.

To develop our proposed metering services charges, we applied a 'building block approach', where the total revenue reflected the forecast return on capital, return of capital (depreciation), opex, and tax liability. A summary is provided in Table 14-2 below.

\$m, nominal2020/212021/222022/232023/242024/25TotalReturn on capital1.871.531.180.800.415.79Return of capital (depreciation)6.206.536.877.227.5934.42Opex9.089.089.069.028.9345.18Net tax allowanceAnnual revenue requirement ³ 17.1617.1417.1117.0516.9485.39	Table 14-2. Wetering Services prop	osea ballallig bit	JCK3 101 the 2020		lari roposar			
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 Opex 9.08 9.06 9.02 8.93 45.18 Net tax allowance - - - - - Annual revenue requirement ³ 17.16 17.14 17.05 16.94 85.39	\$m, nominal	2020/21	2021/22	2022/23	2023/24	2024/25	Total	
Return of capital (depreciation) 6.20 6.53 6.87 7.22 7.59 34.42 Opex 9.08 9.08 9.06 9.02 8.93 45.18 Net tax allowance - - - - - - Annual revenue requirement ³ 17.16 17.14 17.05 16.94 85.39	Return on capital	1.87	1.53	1.18	0.80	0.41	5.79	
Opex 9.08 9.08 9.06 9.02 8.93 45.18 Net tax allowance -	Return of capital (depreciation)	6.20	6.53	6.87	7.22	7.59	34.42	
Net tax allowance -	Opex	9.08	9.08	9.06	9.02	8.93	45.18	
Annual revenue requirement ³ 17.16 17.11 17.05 16.94 85.39	Net tax allowance	-	-	-	-	-	-	
	Annual revenue requirement ³	17.16	17.14	17.11	17.05	16.94	85.39	

Table 14-2: Metering Services proposed building blocks for the 2020-25 RCP – Original Proposal

The MAB consists of the unrecovered capital cost of legacy metering equipment installed on customers premises prior to 1 July 2015. No new capital was forecast for legacy metering services during the 2020-25 RCP. We used the AER's RFM to calculate an opening value of the MAB as a 1 July 2020 of \$34.4 million (\$June 2020), with an estimated remaining life of 5.49 years. Noting the remaining life of the MAB as at 30 June 2025 is half a year, we proposed to accelerate the depreciation of the MAB during the 2020-25 RCP. This would increase depreciation by approximately \$3.4 million, with a marginal increase in capital recovery charges over the 2020-25 RCP. Accelerating depreciation over 2020-25 would reduce the administrative burden for the 2025-30 RCP with only operating and maintenance costs included in the proposal from that point forward.

We used a 'base-step-trend' methodology to determine our opex forecast for legacy metering services. Our base opex was calculated on a per customer basis over the 2015/16, 2016/17 and 2017/18 regulatory years. To cater for the change in fixed and variable components of costs over time as our legacy metering sites reduce, we proposed to apply a metering contestability productivity factor to legacy metering costs for the 2020-25 RCP. We applied a consistent methodology to calculate our metering contestability productivity factor as the AER had used in its draft decisions for New South Wales DNSPs in November 2018. We did not propose any step changes.

Approximately 900,000 legacy meters were estimated to remain installed on SA Power Networks distribution network as at 1 July 2020. SA Power Networks estimated that these legacy meters will be replaced at an average rate of about 6% per year.

14.2.3 AER's Draft Decision

In its Draft Decision, the AER accepted our building block approach, accelerated depreciation of our metering asset base, and approach to capital and operating expenditure. The AER replaced the Weighted Average Cost of Capital (**WACC**), labour escalators, and other related inputs consistent with its methodology for SCS. A summary is provided in Table 14-3 below.

Table 14-5. ALL Dialt Decision - Metering Services building blocks for the 2020-25 Ker							
\$m, nominal	2020/21	2021/22	2022/23	2023/24	2024/25	Total	
Return on capital	1.69	1.35	1.01	0.67	0.33	5.05	
Return of capital (depreciation)	6.14	6.46	6.80	7.14	7.50	34.05	

Table 14-3: AER Draft Decision - Metering Services building blocks for the 2020-25 RCP

² The capital charge 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 was to be subsequently removed. This charge to continue to apply until the MAB is fully recovered.

³ Annual revenue requirement for these ACS is as provided within the Metering Pricing Model, this may not balance to the sum of the components due to rounding.

\$m, nominal	2020/21	2021/22	2022/23	2023/24	2024/25	Total
Opex	9.00	8.94	8.85	8.75	8.63	44.17
Net tax allowance	-	-	-	-	-	-
Annual revenue requirement ⁴	16.83	16.75	16.66	16.57	16.47	83.28

The AER expressed concerns regarding the absence of 2018/19 estimates in the calculation of our operating expenditure base amount, indicating that the 2018/19 operating expenditure would provide a better base in light of the Power of Choice reforms and resultant metering churn. Noting this, the AER accepted our proposed operating expenditure, adjusted for inflation and labour escalators consistent with SCS. Table 14-4 shows the movement in total operating expenditure between our Original Proposal and the AER's Draft Decision.

Table 14-4: Metering Services Operating Expenditure – Draft Decision (\$2019-20)

_ i	• •					
	2020/21	2021/22	2022/23	2023/24	2024/25	Total
SA Power Networks Proposal	8.83	8.62	8.41	8.17	7.90	41.93
AER Draft Decision	8.78	8.51	8.22	7.94	7.64	41.09

The prices for the 2020-25 RCP were smoothed, with the X-factor being a nil value for the RCP. The AER considered this approach involves less complexity and provides stakeholders with consistency in the movement of charges from one regulatory year to the next.

14.2.4 SA Power Networks' response to the AER Draft Decision

SA Power Networks substantially accepts the AER's Draft Decision for metering services, except for labour cost escalation. We have used the AER's Draft Decision PTRM and RFM as the base for our Revised Proposal, with updates made to reflect 2018/19 actual results where appropriate.

14.2.4.1 Form of Control

SA Power Networks accepts the AER's price cap for individual metering services as the form of control. Prices will be set for the first year of the RCP, with prices escalated by CPI and an X-factor for subsequent years. The AER has smoothed the prices for the 2020-25 RCP, and the X-factor will be a nil value for the RCP.

We accept the use of price smoothing for metering services charges, with an X-factor of zero to apply. We acknowledge this will provide stakeholders with consistency in the movement of charges from one regulatory year to the next, with prices adjusted annually by CPI.

14.2.4.2 Labour escalation

Consistent with our approach for SCS, our Original Proposal adopted an average of our consultant, BISOE, and the AER's consultant, DAE, utilities sector labour price growth forecasts. The AER, in its Draft Decision, changed its approach to real labour price growth, and only applied the labour forecast of its own independent consultant, DAE, differing from the approach it has applied in its latest round of determinations.

We do not agree with the changes to the AER's approach and do not believe that it affords us an opportunity to recover a realistic expectation of our cost inputs in accordance with the NER.⁵ Table 14-5 below, provides the real labour price growth percentages applied in our Revised Proposal (and we refer to Attachment 6 – Operating Expenditure of our Revised Proposal for further information as well as a more

⁴ Annual revenue requirement for these ACS is as provided within the Metering Pricing Model. This may not balance to the sum of the components due to rounding.

⁵ NER 6.5.6(c)(3).

detailed analysis as to why the continued averaging of two consultants' forecasts is the appropriate course).

Table 14-5. SA Power Networks annual labour price growth for the 2020-25 Ner									
	2020/21	2021/22	2022/23	2023/24	2024/25				
BISOE %	1.13%	1.28%	1.44%	1.60%	1.33%				
DAE %	0.41%	0.37%	0.34%	0.45%	0.44%				
Average labour price growth %	0.77%	0.83%	0.89%	1.02%	0.89%				

Table 14-5: SA Power Networks annual labour price growth for the 2020-25 RCP

14.2.4.3 Customer Numbers

At the time of submitting our Original Proposal, SA Power Networks was responsible for just under 1 million legacy meters. As legacy meters fail or are proactively upgraded (at the request of the customer or retailer), legacy meters will be replaced with contestably provided smart meters. Historical data was used to forecast the reduction in our legacy meter population, with the population estimated to reduce by approximately 50,000 meters per year.

As at 1 July 2019, SA Power Networks had approximately 950,000 legacy meters installed on our distribution network, with 45,000 meters churning to smart meters over the previous 12 months. We expect our forecast churn rate of 50,000 meters per year to continue to be reasonable, with the churn rate likely to continue to increase as maturity of the contestable metering market increases.

The Metering Pricing Model has been updated as part of our Revised Proposal to reflect the actual customer numbers at June 2019, resulting in an increase in the expected number of metering customer numbers of approximately 3,500 customers per year.

14.2.4.4 Operating Expenditure

We proposed a 'base-step-trend' method to forecast our opex for legacy metering services for the 2020-25 RCP. Our base opex for legacy metering services was calculated on a customer basis, using the average opex for the 2015/16, 2016/17 and 2017/18 regulatory years divided by the average customer numbers over the same period. These years were selected as being the most representative of the actual costs of providing legacy metering services. The actual costs were extracted from the Regulatory Information Notice (**RIN**) data, as provided to the AER on an annual basis.

The AER accepted this approach to opex in its Draft Decision, noting its concerns about the absence of 2018/19 estimates in our calculation of the opex base amount.

The use of actual per customer operating costs, averaged across the three most recent regulatory years, was proposed in our Original Proposal to minimise the impact of cyclical variability in some cost elements. This provided actual realised costs against actual metering customer numbers for the period, based on actual audited data provided in SA Power Networks' RINs.

At the time of submitting our Original Proposal in January 2019, 2018/19 actual data (including opex and customer numbers) was of course not available. As detailed in our response to an AER Information Request, we intended to incorporate any material changes resulting from 2018/19 actuals into our Revised Proposal.

While not considered material, we have, for completeness, incorporated the 2018/19 actual opex and revised customer numbers into the Metering Pricing Model and PTRM.

Table 14-6 below provides the Revised Proposal opex following inclusion of 2018/19 actual opex and customer numbers, and inclusion of the updated labour escalation factors.

	2020/21	2021/22	2022/23	2023/24	2024/25	Total
SA Power Networks Original	8.83	8.62	8.41	8.17	7.90	41.93
Proposal						
AER Draft Decision	8.78	8.51	8.22	7.94	7.64	41.09
SA Power Networks Revised	9 C 2	0 20	0 1 2	7 95	7 5 7	40 E E
Proposal	8.03	0.30	8.12	7.85	7.57	40.55

Table 14-6: Metering Services Operating Expenditure – Revised Proposal (\$2019-20)

14.2.4.5 Metering Asset Base

In our Original Proposal, we used the AER's RFM to calculate an opening value of the MAB as at 1 July 2020 of \$34.4 million (\$June 2020), with an estimated remaining life of 5.49 years. No new capital was forecast for legacy metering services during the 2020-25 RCP.

We proposed to accelerate the depreciation of the MAB, with the MAB to be fully depreciated during the 2020-25 RCP. This increased depreciation by approximately \$3.4 million, with a marginal increase in capital recovery charges over the 2020-25 RCP. The AER, in its Draft Decision, accepted our proposed acceleration, considering the accelerated depreciation of half a year would have an immaterial impact on prices and would have a lower administrative burden in the 2025-30 RCP.

We have used the AER's Draft Decision PTRM and RFM as the base for preparing our Revised Proposal, updated to reflect forecast inflation for 2019/20 and WACC consistent with SCS.

14.2.5 Revised Regulatory Proposal

Our Revised Proposal reflects the efficient costs of continuing to provide legacy metering services for our customers. Table 14-7 provides a summary of the building block components for legacy metering services in the 2020-25 RCP. Opex is expected to continue to decline annually as the quantity of legacy meters installed on SA Power Networks' distribution network reduces.

\$m, nominal	2020/21	2021/22	2022/23	2023/24	2024/25	Total
Return on capital	1.63	1.29	0.97	0.64	0.32	4.85
Return of capital (depreciation)	6.15	6.46	6.78	7.11	7.45	33.95
Opex ⁶	8.85	8.79	8.72	8.63	8.51	43.51
Net tax allowance	-	-	-	-	-	-
Annual revenue requirement ⁷	16.63	16.54	16.46	16.38	16.28	82.30

Table 14-7: Metering Services building blocks for the 2020-25 RCP – Revised Proposal

Our Revised Proposal has been developed using our Metering Pricing Model, comprising the AER's PTRM and RFM as provided in Supporting Documents 14.1 – Metering Model and PTRM and 14.2 – Metering Roll Forward Model.

⁶ This opex is derived from the PTRM output (\$ nominal), and includes debt raising costs not reported as opex in Table 14-6.

⁷ Annual revenue requirement for these ACS is as provided within the Metering Pricing Model. This may not balance to the sum of the components due to rounding.

14.3 Ancillary Network Services

14.3.1 Overview

Ancillary Network Services (**ANS**) are a diverse range of non-routine services that we provide to customers on an as-needs basis, such as network asset relocation work, premises energisation / de-energisation, and special meter reading services.

These services will transition from Negotiated Distribution Services (**NDS**) (where prices are set by SA Power Networks) to ACS (where prices are set by the AER) for the 2020-25 RCP. As an ACS, the full cost of providing the ANS is recovered from the customer or third-party who requested, initiated or triggered the service.

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.

Our Original Proposal built up ANS charges using a bottom up assessment of historical cost. This identified several instances where our negotiated distribution service charges were not cost reflective, with price increases proposed for the 2020-25 RCP to move to cost reflective pricing. In its Draft Decision the AER approved price increases for a range of services compared to the 2015-20 RCP charges, excluding two services that were rejected, and applying corrections to modelling errors and changes to labour rates and service times.

The Energy Project, in its submission to the AER on our Original Proposal, stated that it did not appear to contain any justification for those price increases nor any evidence of engagement with affected stakeholders.⁸ Following initial meetings with The Energy Project to understand its concerns around connection services, SA Power Networks established a Connections Working Group (**CWG**) comprising of key stakeholders. Members of the CWG include electrical contractors, solar installers, energy consultants, industry associations, and a representative from the South Australian Government.

The CWG held its first meeting on 8 August 2019, where key concerns and priorities for the group were identified. Pricing for connections services was one of the topics raised, along with a number of concerns around the customer experience of the connections process. A subsequent meeting was held on 11 November 2019, with a specific agenda item to discuss SA Power Networks' proposed ANS charges for the 2020-25 RCP, including the transition to cost reflective pricing and the structure of some fees.

From these meetings it was evident that predictability of pricing for ACS is important to the CWG members. Some CWG members indicated that segmentation within a fee category should be considered to ensure that the segmentation is easy to understand and aligns more closely to the nature of the work (eg considering the voltage and location of the connection). Some CWG members also indicated they would support an option to pay more for a faster service.

Our proposed indicative prices for ANS are contained in Attachment 17 - Tariff Structure Statement (Part A).

⁸ The Energy Project – Submission to the Australian Energy Regulator on SA Power Networks revenue determination 2020-2025, 20 May 2019, page 14.

Table 14-8 below, provides a summary of the AER's Draft Decision and our Revised Proposal response.

Table 14-8: Summary of feedback on Original Proposal – ANS

	AER Draft Decision	Revised Proposal
Form of Control	The AER's Draft Decision was to maintain the final F&A position to apply price caps to ANS. Prices to be set for the first year of the 2020- 25 RCP and adjusted by the control mechanism in future years. The AER substituted its labour escalator as the X- factor.	SA Power Networks accepts the AER's price cap form of control for ANS, with an X-factor equal SA Power Networks' revised labour escalator for the 2020-25 RCP.
Margin	In its Draft Decision, the AER accepted SA Power Networks' proposal to include a margin component in the quoted services formula. The AER's Draft Decision was to include a margin component, equal to SA Power Networks' nominal vanilla WACC applied to the total cost of Labour, Contractor Services and Materials, in the price cap formula for quoted services.	Our Revised Proposal rejects the AER's Draft Decision to use WACC as the margin. We have instead applied a margin of 6%, which is equivalent to the Net Cost Plus (NCP) earned by competitive contractors providing similar services to those provided by SA Power Networks in ANS.
Base Labour Rates	In its Draft Decision the AER rejected our proposed labour rates for the administrative officer, project manager, technical specialist, engineer and senior engineer labour categories and substituted the maximum labour rate recommended by its consultant.	Our Revised Proposal accepts the AER's labour rates, noting that our field worker labour category is applicable for the majority of ANS delivered to our customers.
Overtime Mark-up	In its Draft Decision, the AER accepted the proposed overtime mark-up of 170% of ordinary time labour rates.	Our Revised Proposal accepts an overtime mark- up rate of 170% of the AER approved ordinary time labour rates.
Service Times	Following benchmarking completed by Marsden Jacob, the AER excluded proposed administration time from the temporary disconnect / reconnect – truck attendance and disconnect / reconnect - single person crew fees.	Our Revised Proposal accepts the AER's Draft Decision to remove administration time from the Temporary Disconnect and Reconnect – Truck Attendance and Single Person Crew services.
Connection Specification Fees	In consideration of the impact of proposed price increases for specific customers related to connection specification fees, the AER rejected these fees in its Draft Decision.	Our Revised Proposal has considered the CWG feedback and proposes to restructure the connection specification fees to amend NDS340 to reflect a project value of between \$0 and \$200,000 and NDS341 to reflect a project value greater than \$200,000. Projects greater than \$200,000 in value (NS342), will no longer be treated as a quoted service.
Service Cancellation Fees	The AER's Draft Decision was to reject SA Power Networks' proposal to apply our proposed disconnection and reconnection service fees for the cancellation of these services.	A disconnection / reconnection cancellation fee, based on the revised services contract, has been developed and included as part of our Revised Proposal.
Security Lighting	The AER's Draft Decision was to reject our proposal to charge security lighting services on a quotation basis.	Our Revised Proposal is to charge security lighting on a fixed-fee basis. The proposed security lighting fixed fee has been developed as an annuity, with the annuity providing recovery for the flood light and ongoing maintenance costs. The labour associated with the installation of the security light will be charged as a quoted service.
Cost Reflective Pricing	The AER's Draft Decision on labour rates and service times reduced the price increases, however the proposed prices are still higher for a range of services compared to the 2015- 20 RCP charges. The AER indicated concern on customer impacts around affordability and	SA Power Networks will continue to apply the 2019/20 NDS prices to all service requests where the work is initiated by the customer prior to 1 July 2020, ie even if the service is completed after 1 July 2020; we will provide early visibility of proposed prices to ANS customers to enable them to build the proposed

AER Draft Decision	Revised Proposal
recommended that SA Power Networks consult with customers on the price impacts.	pricing into their customer quotations where appropriate; and we will consider any requests for special consideration on a case by case basis.

14.3.2 Original Proposal

Our Original Proposal for ANS was developed to provide full cost recovery for each individual service. We proposed 43 fee-based service charges for the 2020-25 RCP. In developing these fee-based charges, we identified some instances where our NDS charge was not currently cost reflective. Increases in these fee-based charges were proposed to make them cost reflective from the commencement of the 2020-25 RCP, resulting in an average increase across all ANS charges of 67% compared to our 2018/19 NDS charges.

For the 2020-25 RCP, we proposed to include a margin in our indicative prices for fee-based services. We also proposed to include a margin as an explicit additional factor within the formula for the quoted services control mechanism. A margin of 6% was proposed, with this being commensurate with the typical margins applied by other DNSPs and accepted by the AER for this type of work.

Labour is a major cost component in the provision of ANS. To simplify the development of our proposed prices for fixed-fee services and inputs for quoted services, we grouped our labour categories into six groups, where similar labour classifications are grouped under one labour code (as detailed in Table 14-9 below).

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

Table 14-9: Labour groupings

The labour rate for each group was calculated using the average base labour rate for the employees performing the work, as detailed within our accounting systems. The base labour rates reflected the labour rates contained within SA Power Networks' Enterprise Bargaining Agreement (**EBA**), inclusive of statutory on-costs⁹.

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

- 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.

⁹ For example, superannuation, workers compensation, leave and leave loading and payroll tax.

Historical materials, contractor (or services) and vehicles usage were used to build-up fixed-fee service costs. For quoted services, non-labour direct costs were to be charged based on the requirements of the specific job.

14.3.3 AER's Draft Decision

The AER's Draft Decision is to maintain the final F&A position to apply price caps to ANS as the form of control. Prices will be set for the first regulatory year of the RCP (ie 2020/21), with pricing for subsequent regulatory years determined by adjusting the previous year's price by the control mechanism formula (as detailed in section 14.5). Consistent with previous decisions, the AER applied the labour escalator as the X-factor.

In its Draft Decision, the AER rejected many of SA Power Networks proposed ANS charges as the AER considered that the proposed labour rates and service times were not efficient. The AER's Draft Decision set price caps that it considered were cost reflective, noting that to approve price caps that are not cost reflective would undermine the efficient use of services. While the Draft Decision on labour rates and service times reduced price increases, those reduced prices were still on average 56% higher than the corresponding 2018/19 NDS charges.

The AER indicated concern about pricing impacts on customers and recommended that SA Power Networks undertake further stakeholder consultation on such impacts and whether smoothing or otherwise transitioning to cost reflective prices would be in the interest of customers.¹⁰

Based on the AER's consultant, Marsden Jacob's recommendations, the AER considered that SA Power Networks' proposed labour rates for the administrative officer, project manager, technical specialist, engineer and senior engineer labour categories were higher than considered efficient. In its Draft Decision, the AER substituted its approved labour rates in the pricing model to generate price caps considered efficient. These labour rate adjustments are detailed in Table 14-10 below.

Labour Code	Description	Proposed Labour Rate (base plus on-costs and overheads)	Draft Decision Labour Rate (base plus on-costs and overheads)	Draft Decision Labour Rate for Quoted Services
Admin	Administrative Officer	100.87	87.06	82.95
PM	Project Manager	175.26	174.13	165.91
FW	Field Worker	139.52	139.52	132.93
Tech	Technical Specialist	181.07	174.13	165.91
Eng	Engineer	169.14	162.53	154.86
SEng	Senior Engineer	204.52	185.74	176.97

Table 14-10: Labour classifications – Draft Decision

The AER accepted our proposed overtime rate of 170%.

Marsden Jacob recommended that the AER exclude SA Power Networks' proposed two hours of administration time from NDS302 Temporary disconnect & reconnect – truck attendance¹¹, as other distributors did not include a similar amount of time. This recommendation was accepted by the AER in its Draft Decision.

The AER's Draft Decision reduced the proposed charges for some ANS, however still approved price increases for a range of services compared to the 2015-20 RCP charges. The AER acknowledged that SA

¹⁰ AER – Draft Decision – SA Power Networks Distribution Determination 2020-25- Attachment 15: Alternative Control Services – October 2019 (Attachment 15), page 20.

¹¹ This also affected other variants of this fee including: NDS330 Temp disconnect & reconnect – single person crew; NDS430 Temp disconnect & reconnect retailer O/head – truck attendance; and NDS431 Temp disconnect & reconnect retailer – single person crew.

Power Networks must be provided with a reasonable opportunity to recover efficient costs for providing ANS. The AER did not consider that SA Power Networks' Original Proposal conveyed the magnitude of the proposed price changes to allow adequate stakeholder consideration.¹² The AER therefore recommended that SA Power Networks undertake stakeholder consultation, including whether a phased transition to cost reflective pricing is more appropriate to balance customer affordability impacts.

Given the impact of proposed price increases for specific customers related to connection specification fees, the AER considered it prudent to reject those fees in its Draft Decision and await SA Power Networks' Revised Proposal. The AER indicated the Revised Proposal should address the concerns raised by The Energy Project and other stakeholders in the CWG¹³.

The AER's Draft Decision was to reject SA Power Networks' proposal to apply the same disconnection and reconnection service fee for the cancellation of these services, with the matter to be reconsidered upon receipt of our Revised Proposal.

In response to an Information Request, the AER considered SA Power Networks' proposed approach to provide security lighting on a fee basis that removes cross-subsidies, is in the best interest of both public lighting and security lighting customers. For these reasons, the AER's Draft Decision was to reject our Original Proposal to charge security lighting services on a quotation basis, with SA Power Networks to propose fixed fees for these services as part of our Revised Proposal.

14.3.4 SA Power Networks' response to the AER Draft Decision

SA Power Networks accepts the AER's Draft Decision on labour rates and service times for ANS. Following customer consultation, we have updated the connection specification fees, resulting in a reduced proposed charge for these services. We have proposed new fixed-price fees for security lighting and for the cancellation of disconnection / reconnection requests.

14.3.4.1 Form of Control

In our Original Proposal, we accepted the AER's approach as set out in its F&A to classify ANS as ACS and apply a price cap form of control. We built up ANS charges using a bottom up assessment of historical cost to determine the efficient costs of providing ANS under the price cap control mechanism.

The AER maintained the F&A position in its Draft Decision, to apply price caps as the form of control for ANS. Prices will be set for the first year of the RCP and adjusted by the control mechanism in future years. In its Draft Decision the AER substituted the labour escalator as the X-factor.

SA Power Networks accepts the AER's price cap form of control for ANS, with an X-factor equal to our revised labour escalation for the 2020-25 RCP. Our Revised Proposal provides for an X-factor for the 2020-25 RCP, as detailed in Table 14-11 below.

Table 14-11: X-factor applicable for ANS for the 2020-25 RCP					
	2021/22	2022/23	2023/24	2024/25	
X-factor ¹⁴	-0.49%	-0.53%	-0.61%	-0.53%	

¹² AER, Attachment 15, page 12.

¹³ AER, Attachment 15, page 23.

¹⁴ Labour escalators themselves are positive for each year of the RCP, therefore they appear as negative X-factors.

14.3.4.2 Margin

Our Original proposal included a margin for ANS charges for the 2020-25 RCP, consistent with the revenue and pricing principles of the National Electricity Law (**NEL**), and the principle of competitive neutrality. We proposed a margin of 6%, where this margin would be applied to the price build up for fee-based and quoted services.

For quoted services, we proposed to explicitly include the margin as an additional factor in the formula giving effect to the quoted services control mechanism (ie price = labour + contractor services + materials + margin). This approach was proposed to increase pricing transparency for quoted services, aligned with customer feedback.

In its Draft Decision, the AER accepted SA Power Networks' proposal to include a margin component in the quoted services formula. While the AER accepted that quoted services are likely to be less capital intensive than SCS, it considered that applying the proposed margin of 6% (fixed) is somewhat subjective whereas the WACC, in comparison, is based on a consultation process culminating in the 2018 Rate of Return Instrument. The AER's Draft Decision was to include a margin component equal to SA Power Networks' nominal vanilla WACC applied to the total cost of Labour, Contractor Services and Materials, in the price cap formula for quoted services.

Selection of an appropriate margin pricing indicator for ANS, should have consideration to the nature of services provided and the cost structures applicable for these services. ANS are generally provided on a time and materials basis, with no asset recovery applicable.

While SA Power Networks acknowledges the consultation process that has gone into developing the WACC (as provided in the 2018 Rate of Return Instrument), we note that this consultation did not consider the application of the WACC as an equivalent margin for time and materials based ANS. WACC measures the return on combined capital; it is not appropriate for use as a measure of the return on time and materials activities undertaken by a service provider.

A margin of Net Cost Plus (**NCP**) is the ratio of operating profit to total operating costs. The NCP determines the mark-up a service provider places on its operating costs to yield a profit. SA Power Networks considers that a NCP indicator is more appropriate to apply as the margin for ANS, as these services are typically delivered through opex (time and materials basis).

SA Power Networks engaged KPMG to provide an expert report on the margins earned by contractors in competitive markets where the contractors provide similar services to those provided by SA Power Networks under ANS. This report concluded that a weighted average range of NCP results for the 2013 - 2017 period earned by the benchmarked providers has a median of 6.1%. The KPMG report has been provided as a supporting document to our Revised Proposal (refer to Supporting Document 14.7 - KPMG - Alternative Control Services - Margin Analysis report).

SA Power Networks proposes that application of NCP as a margin is more appropriate than use of WACC for ANS. On this basis, our Revised Proposal rejects the AER's Draft Decision to use WACC as the margin. We have instead applied a margin of 6%, which is equivalent to the NCP earned by competitive contractors providing similar services to those provided by SA Power Networks in ANS.

14.3.4.3 Labour Rates and Service Times

Our Original Proposal calculated labour rates using the average base labour rate for the employees performing the work, as detailed within our accounting systems. The base labour rates reflected the labour rates contained within SA Power Networks' EBA, inclusive of statutory on-costs.

In its Draft Decision the AER rejected SA Power Networks' proposed labour rates for the administrative officer, project manager, technical specialist, engineer and senior engineer labour categories and substituted the maximum labour rate recommended by the AER's consultant (Marsden Jacob). The AER accepted SA Power Networks proposed labour rate for our Field Worker labour category.

The AER also accepted Marsden Jacob's recommendation to exclude SA Power Networks' proposed two hours of administration time from NDS302 Temporary disconnect & reconnect – truck attendance¹⁵, as other distributors did not include a similar amount of time.

Our Revised Proposal accepts the AER's labour rates, noting that our Field Worker labour category is applicable for the majority of ANS delivered to our customers. Our Revised Proposal also accepts the overtime mark-up rate of 170% of the AER's approved labour rates.

Our Revised Proposal further accepts the AER's Draft Decision to remove the two hours of administration time from the Temporary Disconnect and Reconnect – Truck Attendance and Single Person Crew services.

14.3.4.4 Connection Specification Fees

Our Original Proposal included connection specification fees related to third party connection works. This charge covers our preparatory design works and issuance of a technical specification to enable contestable design works to be carried out by the customer's nominated designers. SA Power Networks proposed two fixed fees in our Original Proposal, one for projects up to \$100,000 and one for projects between \$100,000 and \$200,000. We proposed to increase the connection specification charges from the commencement of the 2020-25 RCP to make them cost reflective, as detailed in Table 14-12 below.

Table 14-12: Connection Specification Fees – Original Proposal (\$June 2020)

	NDS Price 2019/20	Original Proposal	Price Variation (%)
NDS340 Connections specification fee - \$0- \$100k project	\$1,992	\$3,280	65%
NDS341 Connections specification fee - \$101k- \$200k project	\$3,297	\$5,740	74%

Many of the SA Power Networks charges and fees were initially set based upon arbitrary and top-down methods, which may not reflect the current cost of providing the service. These initial charges were then escalated based on CPI and/or other factors.

In consideration of no customer feedback, and the impact of proposed price increases for specific customers, the AER rejected these fees in its Draft Decision.

SA Power Networks has now consulted with the CWG, specifically discussing the connection specification fees and pricing options available for this service. Options considered included moving to a quoted service charge. Feedback from the CWG is that price predictability is important, with service providers seeking likely pricing outcomes from SA Power Networks so they can reliably provide quotes for their customers. As a result, members of the CWG were not supportive of moving the connection specification to a quoted service, with a preference to retain fixed-fee pricing for connection specifications.

Our Revised Proposal has considered the CWG feedback and we propose the following changes to connection specification fees:

amend NDS340 to reflect a project value of between \$0 and \$200,000 (previously \$0-\$100,000 project value);

¹⁵ This also affected other variants of this fee including: NDS330 Temp disconnect & reconnect – single person crew; NDS430 Temp disconnect & reconnect retailer O/head – truck attendance; and NDS431 Temp disconnect & reconnect retailer – single person crew.

- amend NDS341 to reflect a project value greater than \$200,000 (previously \$101,000-\$200,000 project value); and
- remove the existing quoted charge for projects greater than \$200,000 (NS342).

Most projects are either less than \$100,000 or greater than \$200,000, therefore the proposed fees reflect a more appropriate tiered structure.

Table 14-13: Connection Specification Fees – Revised Proposal (\$June 2020)					
	NDS Price 2019/20	Revised Proposal 2020/21	Price Variation (%)		
NDS340 Connections specification fee - \$0- \$200k project	\$1,992	\$2,560	30%		
NDS341 Connections specification fee - >\$200k project	Quoted	\$4,524	-		

14.3.4.5 Service Cancellation Fees

As a NDS, SA Power Networks has historically charged the same fixed fee for both completed and cancelled disconnection / reconnection request service orders, where the charge for this service was developed to recover the total disconnection service order costs (including both completed and cancelled service orders).

Service orders for metering services, including special meter reading and disconnection / reconnection service order processing, are completed through an external services contract. SA Power Networks recently renegotiated a new services contract for the provision of metering services, including routine meter reading, special meter reading and disconnection / reconnection services. This new services contract commenced on 1 July 2019.

Under this services contract, a dedicated cancellation charge is applicable for disconnection and reconnection service orders cancelled prior to the work being completed, irrespective of the cancellation timeframe. To enable the services contractor to effectively plan its work, noting the geographic area covered, SA Power Networks issues service orders to the contractor as soon as we receive valid service order requests from the retailer. This enables our services contractor to be able to deliver the services within the required delivery timeframes, as specified by the retailer.

In their submissions to the AER, Origin and AGL raised concerns regarding our proposed approach to charging the same fee for cancelled requests as would be charged if the work was physically completed. To address these concerns, SA Power Networks proposes to introduce a new dedicated fee associated with the cancellation of disconnection and reconnection service orders, where this fee would be charged for all cancellation requests received prior to the work being completed, irrespective of the date the service order is cancelled.

We note that this cancellation fee is subject to an ongoing dispute with Origin. At the time of submitting our Revised Proposal, this dispute had not been resolved. While Origin has provided in principle support for the quantum of the fee, they are still considering the application of the fee (ie when the cancellation fee should be charged).

The proposed cancellation fee has been constructed using the underlying contract rates from our services contract, where the contractor charges us a cancellation charge for all service order requests cancelled prior to completion of the work. Should the application of this fee change, ie the fee is only charged where the service order is cancelled within a certain timeframe of the required work order date, the proposed cancellation fee may need to be amended to reflect this change.

For the purposes of our Revised Proposal, we have proposed a cancellation fee that will be applicable for the cancellation of special read, disconnection and reconnection requests (NDS388) based on our current services contract, where this fee is payable for all cancellation notices received prior to completion of the original service order request.

This cancellation fee (as detailed in Table 14-14) has been included in our ANS pricing model (refer to Supporting Document 14.3 – Ancillary Network Services Pricing Model).

Table 14-14: Cancellation Fee – Revised Proposal (\$June 2020)			
	NDS Price	Revised Proposal	
	2019/20	2020/21	
NDS388 Special Read / Disco / Reco - Cancellation	-	\$12	

14.3.4.6 Security Lighting

In accordance with the AER's F&A, security lighting will be reclassified as an ACS from 1 July 2020. Security lighting consists of the installation and maintenance of flood lighting infrastructure provided to non-public lighting customers for security purposes. Security lighting customers are required to enter into an agreement with their energy retailer for the energy associated with the installed lights, with this agreement sighted by SA Power Networks prior to commencing installation.

SA Power Networks currently provides security lighting services to approximately 1,700 customers.

Historically, SA Power Networks has charged security lighting services based on the published NDS fees for the provision of public lighting, applying the Flood Lights – SLUOS (\$pa) rate applicable for the lights installed. This SLUOS charge was developed to recover the costs associated with the individual flood light as well as the ongoing maintenance requirement for the installed light. The labour associated with the installation of security lights is charged separately at the time of completing the work.

In our Original Proposal we proposed that security lighting be priced as a quoted service, where this quoted service was expected to cover the costs associated with the installation of new security lighting.

SA Power Networks, in response to an AER Information Request, has reconsidered this approach and agrees it is more appropriate to retain a fixed-fee price for security lighting consistent with the current NDS pricing arrangement.

The AER considers SA Power Networks revised approach to provide security lighting on a fee basis (in response to its Information Request), is in the best interests of both public lighting and security lighting customers. For this reason, the AER rejected our Original Proposal to charge security lighting services on a quotation basis.

Our Revised Proposal is to charge security lighting on a fixed-fee basis. The proposed security lighting fixed fee has been developed as an annuity, with the annuity providing recovery for the flood light and ongoing maintenance costs. The labour costs associated with the security light installation will be charged as a quoted service at the time of completing the new installation. An annuity model for security lighting has been developed and included as a separate tab within our Ancillary Network Services Pricing Model (ie Supporting Document 14.3).

The price build-up for most of our security floodlights (ie less than or equal to 400W) is comparable to the current NDS pricing (NDS453). SA Power Networks proposes to charge this NDS price (NDS453) for all existing security lighting customers, with only a small number of floodlights greater than 400W currently installed. This will minimise the price impact for these customers. We have also developed new prices for

traditional floodlights that are greater than 400W and for LED floodlights (that have been recently approved for installation on our network). These new fees, ie NDS454, NDS455 and NDS456 will only apply to new floodlights installed. Our Revised Proposal prices are provided in Table 14-15 below.

Table 14-15: Security Lighting fees – Revised Proposal (\$June 2020)

	Revised Proposal
	2020/21
NDS453 - Security Lighting - HID <=400W	\$173
NDS454 - Security Lighting - HID >400W	\$311
NDS455 - Security Lighting - LED <=200W	\$218
NDS456 - Security Lighting - LED >200W	\$406

14.3.4.7 Move to Cost Reflective Pricing

When setting the initial pricing under NDS, we developed a schedule of fees and charges to cover provision of these services to customers. However, given customers had not previously been directly charged for some of these services, a significant consideration in initially setting the charges was the price shock on customers. In addition, at that time, we did not have detailed records of the historical costs associated with providing these services.

The result of this was that many of the initial charges and fees were set based upon an arbitrary and topdown method, which did not reflect the true cost of providing the service. These initial charges have been largely escalated based on CPI and/or other factors.

Our Original Proposal adopted a cost-build up approach in determining price caps for individual fee-based services. To support this, we developed a pricing model which contains bottom-up estimates of individual proposed fee-based services. This process identified several instances where our NDS charges were not cost reflective, with average price increases of around 67% proposed for the 2020-25 RCP to move to cost reflective pricing.

Noting the low level of cost reflectivity of our NDS charges, we applied above CPI price increases to some services for the 2019/20 regulatory year. This price increase was not intended to bring the price to cost reflective levels, but to commence the transition to cost reflective prices in preparation for 1 July 2020. Our 2019/20 Network Negotiated Services & Public Lighting price list has been provided as an attachment to this Revised Proposal (refer to Supporting Document 14.9 - Network Negotiated Services & Public Lighting - 2019-20).

While the AER's Draft Decision on labour rates and service times has reduced the price increases, proposed 2020-25 RCP prices are still approximately 56% higher for a range of services compared to the 2015-20 RCP charges. Noting this, the AER indicated in its Draft Decision that price caps will provide SA Power Networks with a reasonable opportunity to recover its efficient costs of delivering ANS.¹⁶

The AER indicated concern about customer impacts around affordability and recommended that SA Power Networks consult with customers on price impacts and whether smoothing or otherwise transitioning to cost reflective prices for ANS may be in the interests of customers.

In consideration of stakeholder feedback, SA Power Networks has reviewed the proposed prices with significant increases, to determine if a transition path may be required. We note that a transition path would normally only apply where services are of a repeat nature, ie where the same customer requests the service on multiple occasions. Repeat customers are likely to be much more sensitive to price changes than customers who only ever use a specific service on a single occasion.

¹⁶ AER, Attachment 15, page 20.

The following services were identified as services with repeat customers, where SA Power Networks proposed a price increase greater than 10%:

- NDS364 Meter inspection fee 1st meter
- NDS371 Temporary line insulation (eg tiger tails)
- NDS377 Asset info request <1hr
- NDS379 Asset info request Ground level T/fs (site visit to open and visually see equipment)
- NDS381 Network Access Management fee <0.5 day planning req
- NDS419 Swing & sag calculations up to and incld 11kV
- NDS428 Swing & sag calculations >11kV
- NDS429 Network Access Management request cancellation <2 business days
- NDS430 Temp disconnect & reconnect retailer O/head truck attendance
- NDS431 Temp disconnect & reconnect retailer single person crew

These services with repeat customers were further reviewed to consider the volume of the service provided across the period. While some services may experience a significant price increase, it may be a service that has low utilisation. The results of this analysis is contained in Figure 14.1, which provides a graphical view of the price change information with a volume overlay.



Figure 14.1: Price Change and Service Volume – Repeat Customer

The Network Access Management fee (NDS381), shows a 74% increase in the fee with an estimated volume of 3,000 service requests per year. SA Power Networks has further engaged with affected customers regarding the Network Access Management fee, looking for opportunities to streamline the process and improve the customer experience. This is further discussed in section 14.3.4.8 below.

SA Power Networks consulted with the CWG on the need for a transition pricing path, sharing detailed information about the price increases, volume and nature of the services proposed. SA Power Networks proposes to apply the following transition strategy for the 2020-25 RCP in its Revised Proposal, which was supported by the CWG:

- the 2019/20 NDS prices will continue to apply to all service requests where the work is initiated by the customer prior to 1 July 2020, ie even if the service is completed after 1 July 2020;
- the 2020/21 AER approved prices will apply to all service requests initiated after 1 July 2020;
- SA Power Networks will provide early visibility of proposed prices to ANS customers to enable them to build the proposed pricing into their customer quotations where appropriate; and
- SA Power Networks will consider any requests for special consideration on a case by case basis.

Our Revised Proposal results in an average price increase of 39% associated with the move to cost reflective pricing.

14.3.4.8 Network Access Management

SA Power Networks processes around 3,000 enquiries per year from customers and contractors requesting approval to work near our distribution network assets.

Approximately 85% of requests result in the need to deactivate the automated reclose protection functionality, which is often referred to as, applying 'non-auto' settings. The other 15% of requests typically involve more complex technical assessment and / or isolations of the network which warrant a quotation.

In relation to the 85% of applications (the 'non-auto' service), there is currently a published Network Access Management Fee of \$291 + GST for the preliminary processing of all requests. The actual labour costs of site attendance to deliver the permit are then captured and presented to the applicant once the work is completed. The typical minimum charge at present is \$1,070 + GST, for a non-auto permit per day of issue. SA Power Networks is required to respond to the request and provide access within 28 days.

In developing our Revised Proposal, SA Power Networks issued a survey to customers who use the network access permit service, to seek their feedback on our proposed changes to the network access management fees. We received a 50% response rate to this survey. 80% of survey respondents either strongly supported, or supported, our proposed move towards a standard charge which would provide certainty around costs, response times, and delivery times. The remaining 20% remained neutral on the matter.

Feedback received from applicants indicated that a quicker delivery, and more certainty around costs, would be ideal. 73% of respondents indicated their support for a fee that provided faster response times, with one survey respondent stating "Costs are not the primary driver for us, response time and delivery time-frames are more important so that we can inform our clients". In response, we considered ways we could improve the process and if customers would see value in having an agreed standard charge for a 'non-auto' permit.

A standard charge for non-auto permits would provide certainty on a scheduled date for the works, at the time of accepting the job. We propose that once the application is received, a technical assessment will occur, with the applicant contacted to confirm available dates and pricing. This becomes the 'response time'. The 'delivery time' is measured as the time taken between application and receipt of a permit on site.

The standard network access permit service would be available from 8am to 3pm, Monday to Friday (excluding Public Holidays). We also propose standard network access permit fees to cover extended hours, ie where the issue permit function or the relinquish permit function is required to be completed outside of normal business hours.

Following consideration of customer feedback, our Revised Proposal includes three new fees for network access permits, as detailed in Table 14-16 below.

Table 14-16: Network Access Permit fees – Revised Proposal (\$June 2020) Revised Proposal 2020/21 NDS450 - Standard Charge – Network Access Permit (8am – 3pm) \$1,099 NDS451 - Standard NAP Extended daytime hours (6am - 6pm Weekdays) \$1,997 NDS452 - Emergency NAP - Weekends - Night Shift \$2,812

14.3.5 Revised Regulatory Proposal

Our Revised Proposal reflects the efficient costs to provide ANS for our customers. Our Revised Proposal has been developed using our ANS pricing model as provided in Supporting Document 14.3 – Ancillary Network Services Pricing Model. This model has been updated to reflect the changes discussed in section 14.3.4 above.

In addition to the changes discussed above, we have also proposed a new fixed fee for third party requested outages for the purpose of replacing a meter (NDS457), providing retailers and metering coordinators with greater price certainty. A retailer or metering coordinator may request that SA Power Networks undertake a premise disconnection and reconnection where they are unable to complete the outage, for example where there is a shared (or common) isolation fuse. The proposed fee includes an initial field visit to confirm the customers affected by the outage, administration time to manage outage notifications to affected customers, and the field visits to complete the outage and to restore supply once the meter has been replaced. The build up for this fee is detailed in our ANS pricing model.

Our Revised Proposal also incorporates changes to contractor rates for special meter reading, disconnection and reconnection related services. This rate change results from a significant reduction in service order volumes. Since May 2018, SA Power Networks have seen a 23% reduction in service order volume associated with disconnection requests, with a further 54% reduction in special meter read requests (as demonstrated in Figure 14.2 below). This reduction was initially considered to be an aberration but is now considered to be a permanent reduction. As a result of the reduction in service order volumes our services contractor has formally requesting a review of the contract rates related to these services. Indicating they are no longer able to deliver the services at the previously contracted rates with the reduced volumes.

Noting this, we have updated our services contract rates within our ANS pricing model. These rates have been updated to reflect the expected efficient rates for the delivery of services over the 2020-25 RCP from our services contractor. With the ongoing implementation of smart meters across our distribution network, we expect the volume of special read and disconnection / reconnection service order will continue to decline.

This change has resulted in a minor increase in fees associated with special meter read, disconnection and reconnection requests and cancelled service orders. While the prices have increased marginally from the AER's Draft Decision, the rates remain consistent with the NDS prices currently charged for these services.



Figure 14.2: Service Order Trend – Special Read & Disconnection requests

To increase transparency of the fixed-fee prices proposed, Table 14-17 details the proposed fee for 2020/21, with the equivalent 2019/20 NDS price and associated price movement. Our Revised Proposal results in an average price increase of 39% compared to 2019/20 NDS prices (\$June 2020).

Fee Code	Description	NDS Price 2019/20	Revised Proposal 2020/21	Price Variation (%)
BCS106	Alt/upgrade/relocate to O/under or U/ground service or O/head service	622	1,293	113.1%
BCS109	Multiphase upgrade - O/under or O/head (diagram 1 or 3)	622	1,332	119.4%
BCS110	Multiphase upgrade - existing pit/pillar (diagram 2)	340	543	63.7%
BCS111	Additional service from existing asset - O/under or pit/pillar (diagram 1 or 2)	622	1,310	115.9%
BCS141	Temp supply - O/head or O/Under on existing pole (diagram 3 or 3A)	860	1,169	39.3%
BCS145	Temp supply - Existing pit/pillar (diagram 2)	340	468	41.0%
NDS301	Permanent abolishment of LV service	359	630	79.9%
NDS302	Temp disconnect & reconnect - truck attendance	563	887	61.3%
NDS330	Temp disconnect & reconnect - single person crew	261	284	11.4%
NDS340	Connections specification fee - \$0-\$200k proj	2,018	2,560	29.9%
NDS341	Connections specification fee - >\$200k proj	3,340	4,524	38.8%
NDS345	Works re-inspection for compliance - Up to 3hrs normal time	345	408	21.2%
NDS346	Works re-inspection for compliance - After 3hrs normal time	113	136	23.8%
NDS347	Works re-inspection for compliance - Out of hours	135	271	105.5%
NDS356	Meter test - 1ph	142	123	-11.2%
NDS357	Meter test - Additional 1ph meter	-	-	-
NDS358	Meter test - 3ph	142	123	-11.2%
NDS359	Meter test - Additional 3ph meter	-	-	-
NDS360	PV installation enquiry - 1ph	142	123	-11.2%
NDS362	PV installation enquiry - 3ph	142	123	-11.2%
NDS364	Meter inspection fee - 1st meter	38	55	49.5%
NDS365	Meter inspection fee - Addition meter	-	-	-
NDS366	Excess kVAr Incentive	51	52	4.2%
NDS371	Temporary line insulation (eg tiger tails)	420	840	104.9%
NDS373	Location of U/ground mains - Provision of plans from office	-	136	-
NDS377	Asset info request - <1hr	91	170	91.2%

Table 14-17: ANS Fees – Revised Proposal (\$June 2020)

Fee Code	Description	NDS Price 2019/20	Revised Proposal 2020/21	Price Variation (%)
NDS379	Asset info request - Ground level T/fs (site visit to open and visually see equipment)	148	341	137.1%
NDS381	Network Access Management fee - <0.5 day planning req	298	Removed	-
NDS386	Special meter reader visit - Normal hours	15	15	-0.7%
NDS387	Special meter reader visit - Out of hours	101	100	1.2%
NDS388	Special Read / Disco / Reco - Cancellation	15	12	-22.0%
NDS389	Meter read - Subsequent attempt	15	15	-0.7%
NDS398	Site inspection to determine nature of connection service - <2hrs	248	341	41.1%
NDS401	Priority or out of hour appointment - <3hrs	207	211	4.2%
NDS403	Retailer fee - disconnection & reconnection - D/N at meter	47	45	-1.8%
NDS404	Retailer fee - disconnection & reconnection - R/C at meter	47	45	-1.8%
NDS405	Retailer fee - disconnection & reconnection - R/C at meter after hours	98	100	4.4%
NDS419	Swing & sag calculations - up to and incld 11kV	1,334	2,049	57.4%
NDS427	Embedded generation firm offer - >30kW-200kW	3,586	3,855	10.2%
NDS428	Swing & sag calculations - >11kV	1,780	2,732	57.3%
NDS429	Network Access Management request cancellation - <2 business days	298	512	75.8%
NDS430	Temp disconnect & reconnect retailer O/head - truck attendance	563	890	61.9%
NDS431	Temp disconnect & reconnect retailer - single person crew	261	284	11.4%
NDS450	Standard Charge Network Access Permit (8am - 3pm)	New Fee	1,099	-
NDS451	Standard NAP Extended daytime hours (6am - 6pm) (Weekdays)	New Fee	1,997	-
NDS452	Emergency NAP / Weekends / night shift	New Fee	2,812	-
NDS453	Security Lighting - HID <=400W	180	173	-1.1%
NDS454	Security Lighting - HID >400W	New Fee	311	-
NDS455	Security Lighting - LED <=200W	New Fee	218	-
NDS456	Security Lighting - LED >200W	New Fee	406	-
NDS457	Third party requested outage for purpose of replacing a meter	New Fee	344	-

14.4 Public Lighting

14.4.1 Overview

SA Power Networks provides public lighting services to 67 customers throughout South Australia, including local councils and the South Australian Government Department of Planning Transport and Infrastructure (**DPTI**).

There are approximately 230,000 luminaires / public lighting installations across our network. The delivery of public lighting services involves 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.

The public lighting asset consists of a range of lamps, luminaires, photo-electric (**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 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 span the useful life of luminaires installed. With the transition to ACS, SA Power Networks intends to formally terminate all current

agreements (and pricing arrangements) and transition all customers to the ACS pricing from 1 July 2020. A new ACS Tariff Agreement (which will form an attachment to the Public Lighting Price List) has been agreed with Public Lighting Customers. For reference, the proposed ACS Tariff Agreement has been included as an attachment to this proposal (refer to Supporting Document 14.11 - Public Lighting ACS Tariff Agreement).

In collaboration with the Local Government Association of South Australia (LGA) a Public Lighting Working Group (PLWG) was established in late 2018. This PLWG was established as a representative body to facilitate a practical ongoing consultation with SA Power Networks and the transition to the new regulatory framework from July 2020. The PLWG is chaired by the LGA, and consists of representatives from seven metropolitan councils, three regional councils, DPTI, and SA Power Networks. Since its inception, the PLWG has been meeting at least once a month. We recognise that has been a massive commitment from the PLWG members and acknowledge their contribution to our public lighting proposal.

At the time of submitting our Original Proposal in January 2019, there were some aspects of our proposal that were still subject to ongoing discussions within the PLWG. The LGA referenced these matters in its submission to the AER dated 15 May 2019. SA Power Networks has continued consulting with public lighting customers, with meetings held at least monthly with members of the PLWG. This consultation has specifically focused on the outstanding elements of our Original Proposal, as detailed within the LGA's submission.

In collaboration with the PLWG, we have agreed to a number of changes from our Original Proposal, including the recovery of Light Emitting Diode (**LED**) installations over a 20-year annuity term; applying a 10-year cleaning cycle for LED luminaires; and removing the regional installation premium for the installation of regional luminaires. These changes were confirmed in response to an AER Information Request, and subsequently accepted by the AER in its Draft Decision.

In its Draft Decision, the AER also accepted other elements of SA Power Networks' proposal. However, the AER did not accept our cable fault rate, unplanned column replacement rate, or our proposed elevation charge.

SA Power Networks largely accepts the AER's Draft Decision for public lighting services, except for column replacement, cable fault rectification, and labour cost escalation. Our Revised Proposal has been developed consistent with the service levels agreed with public lighting customers, as detailed in Supporting Document 14.10 - Public Lighting Service Framework.

The PLWG has continued to focus on column replacement and cable fault rectification, having detailed discussions about the nature of the work, the level of risk and the expectations of the public lighting community. Agreed outcomes have been incorporated into SA Power Networks' Revised Proposal where appropriate.

Table 14-18 below, provides a summary of the AER's Draft Decision and our Revised Proposal response.

	AER Draft Decision	Revised Proposal
Form of control	The AER's Draft Decision was to apply price caps as the form of control for public lighting with prices to be set for the first year of the RCP and adjusted by the control mechanism in future years.	SA Power Networks accepts the AER's price cap form of control for public lighting. Our Revised Proposal provides for an X-factor equivalent to our proposed labour escalation for the 2020-25 RCP.
Elevation (Use of Pole) charge	In its Draft Decision the AER noted that elevation (use of pole) charges for public lighting services are not applied by any distributors in the National Electricity Market	SA Power Networks accepts the AER's approach to remove the use of pole component of public lighting charges.

Table 14-18: Summary of feedback on SA Power Networks' Regulatory Proposal – Public Lighting

	AER Draft Decision	Revised Proposal
	(NEM). Therefore, the AER's draft decision was to remove the \$8 per Stobie pole use of pole charge from SA Power Networks public lighting proposal.	
Column replacement	The AER agreed with the LGA's submission and suggested approach of basing actual failure rates on the historic 5-year average. The AER's Draft Decision was to allow 60 column replacements (unplanned) per year.	SA Power Networks accepts the AER's update to the volume of unplanned column replacements per year. Following additional consultation and agreement with the PLWG, we propose increased volume of planned column replacements per year. Planned replacements will now cover both Extreme and Very High column condition ratings following inspection.
Cable faults	The LGA submitted that cable faults should only be approved after evidence on failure rates is provided by SA Power Networks. The LGA observed that actual cable faults range from between 400 to 1000 from year to year. The AER's Draft Decision was to apply a rate of 700 cable fault rectifications per year, which is the mid-point of the observed cable faults.	We do not accept the Draft Decision for unplanned cable repairs. We note that 700 cable repairs is well below the historical 5-year averages for the current 2015-20 RCP (938 faults), and the previous 2010-15 RCP (813 faults). Our Revised Proposal cable fault forecast aligns with the annual average of the current 2015-20 RCP of 938 faults per year.
Materials prices	For its Draft Decision, the AER considered that materials prices are within the range of efficient and prudent prices based on assessment of our proposal.	Our Revised Proposal retains the materials prices contained within our Original Proposal.
Stakeholder agreements	As a result of ongoing consultation, a number of agreements have been reached with public lighting customers. In its Draft Decision the AER: - adopted a 20-year annuity life; - removed the regional pricing installation premium of 5% - adopted a 10-year cleaning cycle for LED luminaires.	Our Revised Proposal has been developed using the AER's Draft Decision Public Lighting Pricing Model, PTRM and RFM. These changes agreed with Public Lighting Customers have been retained in modelling.
WACC, inflation and escalators	In its Draft Decision the AER applied WACC, inflation and escalation assumptions consistent with the Draft Decision for SCS.	Consistent with SCS, BISOE identified additional factors that are influencing actual results that should be considered when applying the labour escalators for South Australia. As a result of this analysis, we have again applied an average of the latest BISOE and DAE labour escalation forecast for 2020-25 RCP. SA Power Networks has also updated the WACC in our Public Lighting PTRM, to be consistent with the Revised Proposal WACC used for SCS.
Public lighting arbitration	In its Draft Decision the AER noted that it would adopt the outcomes of the final arbitration determination in its final regulatory determination to be published on 30 April 2020.	Our Revised Proposal adopts the arbitration final decision RAB in the RFM for the 2020-25 RCP. We also note that this decision has resulted in an under-recovery of public lighting charges in the 2015-20 RCP. Public lighting customer preference is for this under-recovery to be applied against the Public Lighting Asset Base (PLAB) for the 2020-25 RCP.

14.4.2 Original Proposal

In our Original Proposal, we accepted the AER's approach to classify public lighting services as ACS and apply a price cap form of control. We proposed to apply a building block approach to determine the efficient costs of providing public lighting services under the price cap control mechanism.

As a NDS, SA Power Networks currently enters into formal contracts with public lighting customers for the provision of new public lighting services. In line with feedback from our public lighting customers, we did

not propose any alternate long-term pricing options for public lighting. We instead adopted the AER's price cap form of control for all public lighting services for the 2020-25 RCP, with all public lighting customers to transition to the AER approved prices from 1 July 2020.

Constructive feedback received through our engagement assisted with the build-up of our overall proposal. We note that, at the time of submitting our Original Proposal in January 2019, there were some aspects of our proposal that were still subject to ongoing discussions within the PLWG.

As at July 2018, about 15% of luminaires installed had been upgraded to more energy efficient LEDs, providing improved energy and maintenance outcomes for our public lighting customers¹⁷. As part of our Original Proposal, we forecast that approximately 74% of public lighting installations would be converted to LEDs by 30 July 2025.

There are five components used in determining public lighting prices – luminaire capital, luminaire operating, infrastructure operating, infrastructure capital, and administration and systems costs.

Luminaire capital provides for the recovery of capital costs associated with the installation of new luminaires where SA Power Networks funds the installation. Following consideration of customer feedback, we proposed to continue to apply a 17-year annuity period for new luminaires installed. We also proposed to retain a regional price for the luminaire annuity, reflecting the additional costs associated with mobilisation of work crews in regional areas. These installation costs would be recovered over the 17-year annuity period, providing an estimated 5% increase in the annuity charge per annum.

Luminaire operating costs consist of the reactive repair of lights on failure via the Single Light Out (**SLO**) system, the proactive bulk replacement of lamps and PE cells for High Intensity Discharge (**HID**) public lighting installations, and luminaire cleaning. Faults may be associated with the lamp, PE cell, wiring or the luminaire. Field crews attend the relevant site with the aim of rectifying 98% of faults within five business days for metro areas and 10 business days for regional areas. Historical fault data was used to forecast future failure rates for luminaires and their components, resulting in different operating costs for each luminaire installed.

Bulk replacement is a proactive program to minimise the failure rate of HID lighting components (lamps and PE cells) and to maintain lighting levels. The replacement period is determined based on the age of the component and its associated failure rates, with lamps replaced every two to four years and PE cells replaced every eight 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.

HID lights are cleaned in conjunction with any bulk replacement or SLO work order. For the 2020-25 RCP, we proposed to clean LED lights every five years. To assist us in validating the prudence of a 5-year cleaning cycle, we proposed to undertake lux testing of 25% of installed LEDs (covering high pollution and low pollution areas). This testing was proposed to be completed after the LED has been installed for four years, one year prior to the scheduled LED cleaning cycle. These lux testing results would be used to adjust our cleaning cycles in the future if required.

The infrastructure operating component reflects the costs of completing column inspections, associated column repairs, and cables repairs, resulting from SLO faults. Historical data was used to forecast future infrastructure operating expenditure. We are responsible for approximately 70,000 dedicated streetlight columns across our network. 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.

¹⁷ With each new LED installed, public lighting customers reduce energy costs and greenhouse emissions by up to 80%.

Infrastructure capital provides for the return of, and on, the PLAB. The opening PLAB valuation for public lighting services as at 1 July 2020 was determined within the RFM, allowing for actual and forecast public lighting capex and depreciation. We adopted straight-line depreciation to calculate the depreciation allowance, with a standard life of 28 years and a remaining life of approximately 18 years as at 1 July 2020. For the 2020-25 RCP, we proposed to assign infrastructure capital costs associated with column, bracket, and cable replacements to the PLAB, with an annuity model to apply to the luminaire recovery. Table 14-19 below, provides a summary of the roll forward of the PLAB for the 2020-25 RCP in our Original Proposal.

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

Table 14-19: Roll forward of PLAB for 2020-25 RCP – Original Proposal

For our Original Proposal, we planned to replace approximately 150 columns (0.2% of columns) annually, with these columns identified through our column inspection program. Columns would also be replaced reactively when faults are reported that require immediate rectification (eg a customer reported fault). 73 reactive column replacements were forecast annually, using the average replacements for the past four years.

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, asset management functions, and the use of pole component.

14.4.3 AER's Draft Decision

The AER's Draft Decision was to apply price caps as the form of control for public lighting, with prices to be set for the first year of the RCP and adjusted by the control mechanism in future years. SA Power Networks' Revised Proposal should propose X-factors or otherwise smooth prices consistent with the AER's approved control mechanism.

In collaboration with the PLWG, SA Power Networks agreed to a number of changes from our Original Proposal, including the recovery of LED installations over a 20-year annuity term; applying a 10-year cleaning cycle for LED luminaires; and removing the regional installation premium for the installation of regional luminaires. These changes were confirmed in response to an AER Information Request, and subsequently accepted by the AER in its Draft Decision.

In its Draft Decision, the AER accepted the other elements of our Original Proposal, except for the proposed elevation charge and cable and column replacement rate assumptions. The AER also replaced the WACC, labour escalators, and other related inputs consistent with its methodology for SCS.

At the time of releasing its Draft Decision, the AER was in the process of finalising an arbitration between SA Power Networks and public lighting customers in relation to the PLAB and other pricing issues for the 2010-15 RCP. In its Draft Decision, the AER adopted SA Power Networks' opening PLAB. The relevant outcomes of the final arbitration determination will be adopted in the AER's final regulatory decision to be published on 30 April 2020.

14.4.4 SA Power Networks' response to the AER Draft Decision

SA Power Networks largely accepts the AER's Draft Decision for public lighting services, except for the volume of planned column replacement and unplanned cable fault rectification and labour cost escalation. We have used the AER's Draft Decision Public Lighting Pricing Model, PTRM and RFM as the base for our Revised Proposal, with updates made where appropriate.

We have also incorporated the outcomes of the final arbitration determination for public lighting into our Revised Proposal.

14.4.4.1 Form of Control

In our Original Proposal, we accepted the AER's approach as set out in its F&A to classify public lighting services as ACS and apply a price cap form of control. We proposed a building block approach to determine the efficient costs of providing public lighting services under the price cap control mechanism.

The AER maintained the F&A position in its Draft Decision, to apply price caps as the form of control for public lighting. SA Power Networks will charge for public lighting services in accordance with the prices approved by the AER in the first year of the RCP. These prices will be adjusted by the approved control mechanism (CPI and an X-factor) for subsequent years.

The AER noted that SA Power Networks proposed public lighting prices varied slightly across the RCP, which is inconsistent with a nil X-factor, and that SA Power Networks' Revised Proposal should propose Xfactors or otherwise smooth prices consistent with the AER's approved control mechanism.

SA Power Networks accepts the AER's price cap form of control for public lighting. Our Revised Proposal provides for an X-factor equivalent to our proposed labour escalation for the 2020-25 RCP, as detailed in Table 14-20 below. SA Power Networks has implemented price smoothing where possible to align with this approach.

Table 14-20: X-factor applicable for public lighting for the 2020-25 RCP					
	2021/22	2022/23	2023/24	2024/25	
X-factor ¹⁸	-0.49%	-0.53%	-0.61%	-0.53%	

14.4.4.2 Use of Pole Charge

Consistent with current NDS agreements in place with public lighting customers, SA Power Networks proposed to charge a use of pole (elevation) charge for public lights installed on shared poles. Our Original Proposal included a use of pole charge of \$8 per Stobie pole (equating to approximately \$5.40 per light).

In its Draft Decision, the AER removed the \$8 per Stobie pole use of pole charge from SA Power Networks' public lighting proposal. The LGA argued that this charge is not based on any actual costs to SA Power Networks and should be removed from the public lighting model¹⁹. The AER agreed with the LGA and considered that the charge does not support actual costs incurred by SA Power Networks. The AER noted that that use of pole charges are not applied for public lighting services by any distributors in the NEM.

In consideration of stakeholder feedback, SA Power Networks accepts the AER's Draft Decision in relation to removing the use of pole charge. SA Power Networks' Revised Proposal does not include a use of pole component in the revised public lighting charges.

¹⁸ Labour escalators themselves are positive for each year of the RCP, therefore they appear as negative X-factors. ¹⁹ LGA, submission to the AER, 15 May 2019, page 18.

14.4.4.3 Column Replacement

We are responsible for approximately 70,000 dedicated streetlight columns across our network, these range in mounting height, colour and outreach. The oldest columns were installed in 1956.

On average, approximately 70 columns fail unassisted each year, representing an unplanned failure rate of 0.1%. When a column fails in service, it will fall to the ground as there is no conductor to hold the column upright. This may result in damage to third party assets or personal injury. This risk is unacceptable. To mitigate this risk, SA Power Networks initiated a proactive column inspection program in August 2018. Inspections are focussed on the condition of the column, enabling identification of assets for replacement prior to asset failure. We proposed in our Original Proposal to test approximately 9,000 columns per year, with columns in high corrosion zones inspected on a 5-year cycle and columns in low corrosion zones inspected on a 10-year cycle.

Our Original Proposal included capex to replace 223 columns per year, 73 unplanned column replacements associated with column failure and 150 planned column replacements following inspection. Unplanned replacements were estimated based on the average number of unplanned column replacements completed over the previous four years (ie 2015 – 2018). Planned column replacements were estimated based on inspection data available at the time. It is important to note that, at the time of submitting our Original Proposal in January 2019, we had only limited column inspection data available.²⁰

On column replacements, the LGA submission recommended that the assumed average replacement required as part of routine maintenance should use historical averages for the past five years to predict future trends. The LGA suggested column replacements should be reduced from 73 to 60 columns per year (unless further evidence to dispute the information provided in the SAPN Asset Management Plan was provided).²¹ The LGA submission also recommended the AER ensure that the data on predicted column replacements was updated based on actual audit results to date.

In its Draft Decision, the AER reduced our unplanned column replacements in line with customer feedback, to allow 60 column replacements per year. The AER did not specifically address planned column replacements in its Draft Decision. We note, however, that the AER's Draft Decision public lighting pricing model²² continues to reflect 150 planned column replacements per year, as proposed by SA Power Networks.

The PLWG has continued to focus on column replacement for the 2020-25 RCP, for completeness considering both planned and unplanned column replacements. SA Power Networks has provided the PLWG with updated information on the column conditions that are being found through our ongoing inspection program (with 12 months of inspection data now available).

The aim of the column inspection program is to assess the overall structural condition of the column, to support decisions to reduce the risk of physical column failure. The inspection program will assess each column based on a set of specified criteria and assign a condition rating to each column. Refer to Table 14-21 for details on the condition ratings, assessment criteria, and find results.

²⁰ The column inspection program commenced in August 2018.

 $^{^{21}}$ LGA, submission to the AER, 15 May 2019, page 17-18.

²² AER – SA Power Networks 2020-25 – Draft Decision – Public Lighting Pricing Model – October 2019.







SA Power Networks now has inspection results for approximately 8,000 columns, inspected over the past 12 months. This inspection data has been used to forecast the condition of columns likely to be found over the 2020-25 RCP (refer to Figure 14.3 below). SA Power Networks forecast indicates that each year approximately 160 (1.8%) columns will be at an 'Extreme' condition rating, where these columns are likely to fail in service at any time. A further 200 (2.3%) columns are likely to be at a 'Very High' condition rating, 1,000 (12%) columns at a 'High', 3,000 (34%) at 'Moderate', and 4,500 (50%) will be at a 'Low' condition rating.



Figure 14.3: Column Inspection – Condition Find Rate

The AER's Draft Decision provides capex for the planned replacement of 150 columns per year. This essentially provides capital funding for the replacement of 'Extreme' condition rated columns found each year.

The PLWG has had detailed discussions about the nature of the work, the level of risk and the expectations of the public lighting community. Following consideration of the cost and risk to public safety, the PLWG endorsed extending the column replacement to include 'Extreme' and 'Very High' condition rating columns. The PLWG also supported re-inspection of the 'High' condition rated columns every 5 years.²³ Refer to Supporting Document 14.8 – LGA - Letter of Support.

This change in approach for column replacement will result in an increase in the volume of planned column replacements from our Original Proposal, increasing from 150 to 360 planned column replacements per year. With 250²⁴ additional column inspections being completed annually from 2023/24 (five years after the initial inspection program commenced).

SA Power Networks acknowledges that extending the planned column replacement program to cover both 'Extreme' and 'Very High' condition rated columns, should result in a reduction in the number of unplanned column failures occurring each year. The quantum of this reduction is difficult to quantify at this stage, particularly noting that we have only inspected approximately 10% of installed public lighting columns. Noting this, and following consultation with the PLWG, we have agreed to retain the AER's Draft Decision of 60 unplanned column replacements per year.

This will provide funding for a total of 420 column replacements (planned and unplanned) per annum, and SA Power Networks will manage any variances across the planned and unplanned replacements on a risk management basis. It is important to note that column replacement expenditure is treated as infrastructure capital and will be recovered through the PLAB. While forecast infrastructure capital expenditure is used as a building block for developing public lighting prices for the 2020-25 RCP, the actual expenditure on column replacements will be reflected in the 2020-25 RAB roll-forward for the following regulatory period (ie the 2025-30 RCP) and will be 'trued-up' at that time.

The Public Lighting Pricing Model submitted as a supporting document to our Revised Proposal has been updated to reflect the change in planned column replacement and inspections, as endorsed by Public Lighting Customers. Refer to Supporting Document 14.4 – Public Lighting Pricing Model.

14.4.4.4 Cable Faults

There is approximately 2,750 kilometres of underground public lighting cable installed on our distribution network. This cable is subject to fault, typically when the cable's protective coverings are broken down over time, allowing moisture to enter the cable and cause a fault to earth. Cable faults are identified through our SLO process, with the fault resulting in no power supply to the light fitting.

Our Original Proposal included reactive cable repair and planned cable replacement. Reactive cable repair relates to the rectification of individual cable faults as they occur. A SLO work order is issued for our field crew to attend the site. Once the crew ascertain that the fault is related to a cable fault, they locate the fault in the cable and replace the section of faulty cable, with a new section of cable joined in.

Approximately 1.5 metres of cable is replaced during an unplanned cable repair. SA Power Networks used historical data to estimate cable faults for the 2020-25 RCP. With cable faults demonstrating an increasing average fault trend, we forecast cable faults at a rate of around 1,000 faults per year, consistent with the

²³ Columns in low corrosion zones are routinely inspected on a 10-year cycle, with high corrosion zones already inspected on a 5-year cycle.

²⁴ Representing the proportion of 'High' condition rated columns inspected that are in low corrosion zones. SA Power Networks estimates that 23.6% of columns are in low corrosion zones.

historical trend for cable faults as demonstrated in Figure 14.4 below. Table 14-22 provides the volume cable fault reports per year.



Figure 14.4: Cable Faults – Historical Volume and Trend

Table 14-2	Table 14-22: Historical Cable Faults – Light Out Reported												
	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	
Faults	448	525	761	860	555	826	801	1,021	623	1,247	806	1,015	

Cable replacement is proposed where multiple faults have occurred on the same section of cable, and patching is no longer considered viable. Consistent with SCS, the cable is replaced once at least three faults have been recorded on a single section of cable. SA Power Networks proposed to complete approximately 16 kilometres of planned cable replacement over the 2020-25 RCP, representing less than 0.6% of the total length of cable.

The LGA in its submission observed that the annual number of cable faults varies widely and recommended a predicted fault trend be developed using the average historical trend. It concluded that, based on the historical trend, the average fault appears to be between 400 and 1,000 faults per year (average of approximately 700).²⁵

The AER's Draft Decision was to apply a rate of 700 unplanned fault repairs per year, which represents the mid-point of the observed cable faults. The AER did not specifically address planned cable replacements in its Draft Decision, however the AER's Draft Decision pubic lighting pricing model²⁶ continues to reflect the planned cable replacement as proposed by SA Power Networks.

We do not accept the AER's Draft Decision for unplanned cable repairs. As is demonstrated in Figure 14.5 below, 700 unplanned cable repairs is well below the historical 5-year averages for the current 2015-20 RCP (at 938 faults), and the previous 2010-15 RCP (at 813 faults). We note that the fault rate is unlikely to provide SA Power Networks with adequate funding to maintain public lighting in accordance with service standards and public lighting customer expectations.

²⁵ LGA, submission to the AER, 15 May 2019, page 15.

²⁶ AER – SA Power Networks 2020-25 – Draft Decision – Public Lighting Pricing Model – October 2019.





As highlighted by public lighting customers, the number of cable faults fluctuates throughout the year, as demonstrated in Figure 14.6. Noting this, we tend to experience higher volumes of cable faults in July and August. As noted above, the typical failure mode is a breakdown of the outer sheath allowing ingress of water, eventually the insulation breaks down around the active wires allowing a fault to earth. The ground is more conductive when it is wet, hence most cable faults for Low Voltage occur when the ground is at its wettest (ie winter in South Australia). The number of cable faults each year is influenced by annual rainfall conditions. Typically, where we have fewer cable faults in a dry year, the following wet year will often have a higher number of faults as the cables have further degraded.



Figure 14.6: Cable Faults – Light Out Reported

While cable failure is influenced by the level of moisture in the soil, the level of general degradation is not. Cable will continue to degrade as it ages, resulting in a general increased cable fault trend, with ups and downs depending on annual rainfall conditions. SA Power Networks has continued to consult with public lighting customers on cable faults, providing historical fault data and modelling. Public lighting customers have indicated their support for our planned cable replacement program; however, they have not been able to agree amongst themselves on an appropriate forecast volume of cable faults. Noting this, the PLWG has indicated its preference for the forecast to be based on a 10-year average of actual cable fault data²⁷.

Year to date cable fault data indicates SA Power Networks' forecast for 2019/20 continues to be reasonable, at approximately 1,000 cable faults. We have applied the Weibull distribution analysis to assist with forecasting the expected volume of cable faults based on the age of cable installed. This analysis continues to support a cable fault forecast in excess of 1,000 cable faults per year, as provided in Figure 14.7 below.



Figure 14.7: Cable Faults – Weibull Distribution Analysis

We note that the Weibull analysis does not consider any impact associated with the planned cable replacement program. This planned cable replacement program is a new initiative by SA Power Networks to try to reduce the growth in cable faults we are experiencing. Our proposal for the 2020-25 RCP is to replace approximately 3 kilometres of cable per year, resulting in replacement of around 0.1% of installed cable each year. It is difficult to accurately forecast the likely impact this program will have on the number of cable faults that occur, particularly considering the volatility in cable fault volumes. Noting this, we initially estimate the planned cable replacement program may reduce the volume of cable faults over the 2020-25 RCP by an average of 60 cable faults per year.

We acknowledge customer feedback received on reactive cable repair and cable replacement, particularly the use of historical data to set the forecast for the next RCP and the likely impact of the cable replacement program. In consideration of this feedback and our assessment of the planned cable replacement program, we propose to set the cable fault forecast for the 2020-25 RCP to equal the average number of cable faults over the 2015-20 RCP.

We understand the PLWG preference to use a 10-year average of historical fault data. However, we do not consider that a 10-year average appropriately accounts for the continued cable degradation associated with cable age. Noting this, we have updated our cable fault forecast for the Revised Proposal to align with the annual average of the current 2015-20 RCP at 938 faults per year (as provided in Figure 14.8 below).

²⁷ Refer to Supporting Document 14.8 – LGA - Letter of Support.





The Public Lighting Pricing Model submitted as a supporting document to our Revised Proposal has been updated to reflect the change in reactive cable repairs, as per consultation with Public Lighting Customers. Refer to Supporting Document 14.4 – Public Lighting Pricing Model.

14.4.4.5 Labour escalation

Consistent with our approach for SCS, our Original Proposal for public lighting adopted an average of our consultant, BISOE, and the AER's consultant, DAE, utilities sector labour price growth forecasts. In its Draft Decision, the AER only applied the labour forecast of its own independent consultant, DAE.

We do not agree with the AER's approach and do not believe that it affords us an opportunity to recover a realistic expectation of our cost inputs in accordance with the NER.²⁸ Table 14-23 below, provides the real labour price growth percentages applied in our Revised Proposal (see Attachment 6 – Operating Expenditure of our Revised Proposal for further information as well as a more detailed analysis as to why the continued averaging of two consultants' forecasts is the appropriate course).

	2020/21	2021/22	2022/23	2023/24	2024/25
BISOE %	1.13%	1.28%	1.44%	1.60%	1.33%
DAE %	0.41%	0.37%	0.34%	0.45%	0.44%
Average labour price growth %	0.77%	0.83%	0.89%	1.02%	0.89%

14.4.4.6 LED Cleaning – Quoted Service

Our Original Proposal provided for LEDs to be cleaned every 5 years, to maintain lumen output in accordance with lighting standards. To assist in validating the prudency of a 5-year cleaning cycle, lux testing was also proposed for a portion of installed LEDs. This testing was proposed to be completed on 25% of LEDs installed after four years, one year prior to the scheduled LED cleaning cycle.

The LGA submission indicated that no evidence existed to support the need for cleaning of LEDs within the period of the price review, therefore no cleaning should be included within the public lighting pricing model for the 2020-25 RCP.

²⁸ NER 6.5.6(c)(3).

Industry evidence indicates that LEDs will need cleaning over their lifetime, with the time between cleans influenced by local factors, such as light spacing, height and environmental conditions where the luminaire is installed. The LGA submission confirms the luminaire maintenance factor (LMF) used in Victoria assumes a clean at 10 years.

SA Power Networks' preference in response to the feedback from public lighting customers is to increase the cleaning period in the model to 10 years, with lux testing continuing to be completed at four years and eight years to confirm the need for cleaning. This approach was discussed at the PLWG and endorsed by Public Lighting Customers.

It is also important to note that extending the LED cleaning cycle to 10 years will mean that SA Power Networks may not have funding in the 2020-25 RCP to complete LED cleaning, where it is deemed to be required following the initial lux testing, ie without redirecting funds from other public lighting maintenance activities. This redirection of funds may not be possible due to the need to maintain the compliance of installed lights, and the likely impact on Guarantee Service Level payments if faults are not resolved in a timely manner.

To manage this risk, SA Power Networks proposes a new quoted service for LED cleaning as part of our Revised Proposal. This quoted service would enable SA Power Networks to be able to negotiate cleaning with an individual public lighting customer where a requirement for cleaning is confirmed following lux testing, with the cost being funded directly by the public lighting customer concerned. The PLWG is supportive of this risk management approach²⁹.

This LED cleaning quoted service, where required, will be charged in accordance with the quoted services price cap formula provided in section 14.5.2 (below).

14.4.4.7 Public Lighting Arbitration

At the time of lodging our Original Proposal, the PLAB valuation was subject to an open dispute which was before the AER for decision. The AER's final arbitration decision was made public on 24 October 2019.

This determination resulted in the AER replacing the Essential Services Commission of South Australia's July 2010 opening asset value of the PLAB (\$40.14 million) with a lower value of \$34.79 million based on asset life assumptions. While the AER's arbitration only related to the 2010-15 RCP, it noted that the increase in the closing balance of the PLAB for 2015 will have implications on public lighting charges in the 2015-20 RCP and the 2020-25 RCP.

We have reviewed the outcomes of the final arbitration decision and can confirm that this has resulted in an under-recovery of public lighting charges for the 2015-20 RCP. This is because depreciation costs are lower under the AER's arbitration decision for the 2010-15 RCP, resulting in a higher PLAB value at the end of the period. We estimate this under-recovery equates to approximately \$1.1 million.

We have discussed this under-recovery with the PLWG and the mechanisms available to recover this under-recovery. The public lighting customers felt that the dispute, the PLAB and the under-recovery, is a complex issue to provide feedback on. The PLWG endorsed the approach, in principle, to put any under-recovery into the PLAB, noting that this under-recovery would be submitted to the AER as part of our Revised Proposal, at which time it was expected the AER would review the modelling to verify any value of under-recovery claimed.

SA Power Networks has included the outcomes of the AER's arbitration decision in the RFM submitted as part of our Revised Proposal. SA Power Networks has applied the \$1.1 million under-recovery for the 2015-20 RCP as an addition for the 2019/20 year.

²⁹ Refer to Supporting Document 14.8 – LGA - Letter of Support.

We have used the AER's arbitration decision method to calculate the NPV of any over or under recovery for the 2015-20 RCP, using the RAB roll forward for the ESCoSA PLAB and the AER arbitration decision PLAB values. We note that we have only calculated the under-recovery over the 2015-19 years, noting that we do not currently have actual capital expenditure for the 2019/20 year. We will further consider if any further adjustments are required for the 2019/20 year in our 2025-30 Regulatory Proposal.

The following Supporting Documents are provided to support the 2015-20 RCP under-recovery calculation:

- 14.12 Public Lighting PTRM 2015-20 RCP AER PLAB decision
- 14.13 Public Lighting RFM 2015-20 RCP ESCoSA PLAB
- 14.14 Public Lighting PTRM 2015-20 RCP ESCoSA PLAB
- 14.15 Public Lighting 2015-20 RCP Under-recovery calculation

14.4.5 Revised Regulatory Proposal

Our Revised Proposal reflects the efficient costs of providing public lighting services to our customers. Our Revised Proposal has been developed using our public lighting pricing model, comprising of the PTRM and RFM as provided in Supporting Document 14.4 – Public Lighting Pricing Model, Supporting Document 14.5 – Public Lighting PTRM, and 14.6 – Public Lighting RAB Roll Forward Model.

Our RAB RFM and PTRM have been updated to reflect the outcomes of the public lighting arbitration decision as indicated in section 14.4.4.7 above, as well as the revised column replacement volumes. The proposed PLAB RFM values for the 2020-25 RCP are provided in Table 14-24 below.

\$m, nominal	2020/21	2021/22	2022/23	2023/24	2024/25
Opening PLAB (1 July)	46.6	47.8	48.7	49.4	50.1
Forecast capex / additions	2.5	2.7	2.8	2.9	2.8
Depreciation	-2.4	-3.0	-3.3	-3.3	-3.4
Inflation on opening PLAB	1.1	1.1	1.1	1.2	1.2
Closing balance (30 June)	47.8	48.7	49.4	50.1	50.7

Table 14-24: Roll forward of PLAB for 2020-25 RCP – Revised Proposal

While the pricing outcomes of our Revised Proposal vary by tariff, we are forecasting an overall reduction in average public lighting charges for the 2020-25 RCP.

14.5 Form of control mechanism

The AER maintained the F&A position in its Draft Decision, 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.
- **ANS** 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.

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 Annual Pricing Proposal (**APP**) for each year of the 2020-25 RCP.

14.5.1 Fee based services

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

 $p_t^{-i} \ge p_t^i$ i=1, ..., n and t=1, 2, ..., 5

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

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.
- ΔCPI_t is the annual percentage change in the ABS consumer price index (CPI) All Groups, Weighted Average of Eight Capital Cities³⁰ 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.

- 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.
- Aⁱ_t 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.

³⁰ 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.

14.5.2 Quoted services

The first three terms are defined in accordance with the AER's F&A. For the 2020-25 RCP, we proposed to include a margin as a fourth term. The inclusion of a margin as a fourth term was accepted by the AER in its Draft Decision.

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

Price = Labour + Contractor Services + Materials + 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:

 ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities³¹ 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% of the total of Labour, Contractor Services and Materials.

14.5.3 New service identified within the 2020-25 RCP

In our Original Proposal we sought to be able to introduce new charges as either fixed-fee services or quoted services as part of our APP, where a new service is identified that falls within an existing ACS

³¹ 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.

service group classification. This proposal would provide us with the flexibility to provide new services to our customers without having to wait until the 2025-30 RCP.

In its Draft Decision the AER did not accept this proposal. The AER's Draft Decision was that a quoted price approach is to be adopted where new services are introduced during the RCP, and the service clearly falls within one of the established service classification groupings.

Our understanding is that all quoted services will be priced in accordance with the quoted services price cap formula (as detailed in section 14.5.2 above). While this formula is suitable for the development of prices for the majority of new ANS, we do not consider this formula is suitable for public lighting.

As an example, we expect that new LED luminaires will be introduced during the RCP. The quoted service price cap formula can be used for the installation of the new LED, where the installation is provided on a time and materials basis and funded up front by the public lighting customer. It is more problematic to use a time and materials basis for the ongoing operating costs for the light once it is installed. These operating costs would normally be built into the fixed-fee price build up as part of the development of our public lighting prices.

Our Revised Proposal accepts the AER's Draft Decision for new ANS to be priced as a quoted service, and the service clearly falls within one of the established service classification groupings.

For public lighting, we seek to be able to introduce new fixed-fee charges. 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 fixed-fee price using our approved pricing model with updates to the relevant inputs (eg purchase price and maintenance criteria). We will consult with public lighting customers on any new public lighting charges proposed, including methodology used to develop these charges. Once public lighting customers are satisfied with the pricing outcomes, we will submit our proposed prices to the AER for approval with our APP.

The ability to retain the flexibility to be able to provide a fixed-fee price build up for public lighting services will enable us to provide new services to our customers during the 2020-25 RCP, without having to wait until the 2025-30 RCP. This is important to our public lighting customers, with the vast majority of customers indicating their interest in new public lighting technology.

Shortened Forms

ACS	Alternative Control Services
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ANS	Ancillary Network Services
АРР	Annual Pricing Proposal
Сарех	Capital Expenditure
СРІ	Consumer Price Index
CWG	Connections Working Group
DAE	Deloitte Access Economics
EBA	Enterprise Bargaining Agreement
F&A	Framework and Approach
HID	High Intensity Discharge
LED	Light Emitting Diode
LGA	Local Government Association of South Australia
МАВ	Metering Asset Base
мс	Metering Coordinator
NCP	Net Cost Plus
NDS	Negotiated Distribution Service
NEM	National Electricity Market
NER	National Electricity Rules
Opex	Operating Expenditure
PE	Photo Electric
PLWG	Public Lighting Working Group
PTRM	Post Tax Revenue Model
RFM	Roll Forward Model
RIN	Regulatory Information Notice
SCS	Standard Control Services
SLO	Single Light Out
WACC	Weighted Average Cost of Capital
BISOE	Bis Oxford Economics