Jemena Electricity Networks (Vic) Ltd

2021-26 Electricity Distribution Price Review - Revised Proposal

Attachment 09-01

Response to the AER's draft decision - Alternative control services

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Table of contents

List of tables

List of figures

List of appendices

Glossary

alternative control services	A distribution service that is a direct control service but not a standard control service. It includes smart metering services, public lighting OM-R services and ancillary services
category P	Lighting applicable to roads on where visual requirements of pedestrians are dominant, e.g. minor roads, local roads
category V	Lighting applicable to roads on where visual requirements of motorists are dominant, e.g. major roads, traffic routes
current regulatory period	The regulatory control period covering 1 January 2016 to 31 December 2020
draft decision	The draft decision on the determination that will apply to setting JEN's distribution prices for the next regulatory period
initial proposal	The initial regulatory proposal to the AER for the setting of regulated pricing for JEN for the next regulatory period
intervening period	The regulatory period covering 1 January 2021 to 30 June 2021
next regulatory period	The regulatory control period covering 1 July 2021 to 30 June 2026
revised proposal	The revised regulatory proposal for setting regulated revenues for smart metering services and prices for all other alternative control services for the next regulatory period
smart metering services	Type 5 & 6 metering provision (including smart meters)

Abbreviations

AER	Australian Energy Regulator's
CAM	Cost Allocation Methodology
CPI	Consumer Price Index
CY	Calendar Year
DAE	Deloitte Access Economics
DNSP	Distribution Network Service Provider
EDPR	Electricity Distribution Price Review
ESCV	Essential Services Commission of Victoria
EWP	Elevated Work Platform
F&A	Framework and Approach Paper
HY	Half Year
JEN	Jemena Electricity Networks (Vic) Ltd's
LED	Light Emitting Diode
MAB	Metering Asset Base
NER	National Electricity Rules
OMR	Operation Maintenance and Replacement
PLAB	Public Lighting Asset Base
PTRM	Post Tax Revenue Model
RFM	Roll Forward Model
RIN	Regulatory Information Notices
WACC	Weighted Average Cost of Capital

Overview

This document sets out Jemena Electricity Networks (Vic) Ltd's (**JEN**) revised revenue and pricing proposal (**revised proposal**) for alternative controls services over the 2021-26 regulatory control period (**next regulatory period**). It is an update to our initial regulatory proposal of 31 January 2020 (**initial proposal**) for alternative control services and focuses on providing updated or new information and addressing material issues outlined in the Australian Energy Regulator's (**AER**) 2021-26 draft decision (**draft decision**). It also examines and incorporates the effects of changes arising since the submission of our initial proposal, such as the COVID-19 pandemic, updates from our customers and other legal and regulatory requirements.

The key elements of this revised proposal are:

- type 5 & 6 metering provision (including smart meters) (**smart metering services**)
- ancillary services – fee based and quoted services
- public lighting services.

For our smart metering services, we charge under a revenue cap. A summary of our revenue proposal for smart metering services from initial proposal, draft decision and this revised proposal is outlined in Table OV–1.

Table OV–1: Smoothed revenue for smart metering services ($Nominal, $M)

Service Type	Initial Proposal	Draft Decision	Revised Proposal
Smart metering services	128.2	112.1	112.9

For all other alternative control services, we will use a price cap form of regulation, meaning prices are set on an individual services basis.

Customer impacts

What this means for our customers

Smart metering services

- When speaking to our customers, they told us that affordability was important to them,[1] however, they also recognised how critical it is that we provide a reliable and sustainable electricity distribution service over the long term. With our smart metering services being the basis on which we set our bills—and therefore, our primary means on how we interact with our customers on affordability issues—it is important to our customers that the smart metering services revenue is set at the right levels.

  To address our customers' affordability concerns we have developed a revised revenue proposal which is 12% (or $15.3 million, $nominal) lower than our initial proposal amount.

- Our customers also told us that consistency in bills from year to year was extremely important to them; they said that stability helped their budgeting process.[2] In this revised proposal, we propose a price path that offers large immediate savings to our customers in the first year of the next regulatory period and maintain significantly lower revenue in each subsequent year —relative to the revenue recovered in the current regulatory period. We consider that this profile goes towards meeting this objective for our customers.

1 JEN, *2021-26 Electricity Distribution Price Review, Regulatory Proposal, Attachment 02-02, Community engagement report*, Pg. 43.

2 JEN, *2021-26 Electricity Distribution Price Review, Regulatory Proposal, Attachment 02-04, Reconvening the Jemena People's panel*, Section 3.1.

- Smart metering services also allow us to realise efficiency and other benefits when providing standard control services, and those benefits are captured in our standard control services annual revenue requirement and improved service outcomes.

Ancillary services (fee based and quoted services)

- We have lowered our prices for our main connection services, offering real price savings for our new connections.
- Our people's panel expressed strong concerns for the vulnerable members of our community, and asked that JEN play its role in supporting them.[3] We are committed to contributing resources to assisting them. Our practical contribution to this process is to remove the charges for remote de-energisation and re-energisation services. We say this, because highly vulnerable customers are more likely to be renters, and renters move premises more frequently than home-owners. By removing charges for customers who would otherwise incur them more often, we are able to contribute to the vulnerable members of our community.

Public lighting

- We have consulted extensively with our public lighting customers on the services they value the most. They told us energy efficiency was important to them, but so is cost.
- To address this customer requirement, we are moving our default light type to light emitting diode (**LED**) luminaire, and also providing a "progressive rollout" of these new light types—only replacing all minor road mercury vapour lights at the time the lights are scheduled for bulk lamp replacement; and replacing unserviceable minor and major road lights with LEDs.

JEN's response to the draft decision

A summary of the key decision items outlined in the AER's draft decision and our response to each of these is presented in Table OV–2.

Table OV–2: Description of AER's decision

Initial proposal	Draft decision	JEN response
Smart metering services		
Service types and pricing structure – We proposed to adopt a revenue cap as the form of control in our initial proposal.	The AER accepted the use of a revenue cap as the form of control.	We **accept** the AER's decision.
Labour escalation – we used the average of the forecasts from the 2019 Deloitte Access Economics (**DAE**) and BIS Oxford (**BIS**) reports in our initial proposal.	The AER used an updated DAE forecast only noting that the BIS 2020 report that included the impact of COVID-19 was not available when the AER prepared its draft decision.	We **partially accept** the AER's decision. Our revised proposal calculates labour escalation using the average of both DAE and updated BIS forecasts with COVID-19 impacts and the increase in superannuation guarantee.

[3] JEN, 2021-26 Electricity Distribution Price Review, Regulatory Proposal, Attachment 02-02, Community engagement report, Recommendation #2.

Initial proposal	Draft decision	JEN response
Consumer price index (**CPI**) and rate of return	The AER included an estimate of expected inflation of 2.37%. The AER also noted that it is reviewing the approach to estimating expected inflation in its draft decision. The AER has also accepted our approach for return on debt and equity but updated placeholder inputs to reflect the latest market information.	We **partially accept** the AER's draft decision. We adopted the same placeholder value for inflation in our revised proposal which will be updated by the AER in the final decision. Refer to section 3.4 of Attachment 03-01 for our response to the AER's review into the treatment of inflation. The AER will update the return on debt annually with our nominated averaging period. The AER will also update our return on equity in the final determination to reflect our nominated averaging period.
Customer growth	The AER has updated customer growth to reflect the impact of COVID-19.	We **accept** the AER's draft decision[4].
Base year operating expenditure	The AER has also replaced the estimate for CY19 operating expenditure with actual operating expenditure as reported in our annual regulatory information notice (**RIN**) response.	We **accept** the AER's draft decision.
Network ancillary services		
We proposed price caps to ancillary services as the form of control as set out in the final Framework and approach (**F&A**) paper, except with a change to the pricing formula for quoted services. We added tax and margin components to the formula.	The draft decision is to maintain the final F&A position to apply price caps to ancillary services as the form of control. The AER rejected our proposal to add margin and tax to the pricing formula for quoted services..	We **partially accept** the AER's draft decision. We **accept** the disallowance of tax, but **do not accept** the rejection of margin in the draft decision.
We proposed fees for 20 ancillary services including wasted site visit fees for when we are unable to fulfil the request for reasons beyond our control. Remote special meter read, energisation and de-energisation services are offered free of charge.	The AER accepted JEN's proposed fees for fee-based ancillary services except for certain connection services fees, customer access to data charge, and requiring JEN to offer a separate price for testing additional meters.	We **accept** all of the AER's draft decision for our proposed fee-based ancillary services. Further, we clarify that the 'customer access to data' service is free of charge; and that the meter test fee will apply only once.
We proposed labour rates for labour categories, including: • Administrative employee • Fieldworker • Technical Specialist • Engineer • Senior Engineer.	The AER accepted JEN's proposed labour rates for Administrative employee, Fieldworker and Technical Specialist, but rejected the proposed labour rates for Engineer and Senior engineer. For the Engineer and Senior Engineer labour types, the AER substituted its consultant's maximum recommended hourly rate.	We **partially accept** the AER's draft decision. The labour rates in our revised proposal reflect our updated labour escalation rates (based on an average of DAE and BIS forecasts). In addition, we have included a vehicle allowance in the hourly rate of a Technical Specialist.

[4] We accept the AER's draft decision metering capital expenditure model in its entirety and therefore have not included the model in our revised proposal. Our updates in the revised proposal do not affect the metering capital expenditure model.

Initial proposal	Draft decision	JEN response
Public lighting		
JEN updated the inputs to the *Final Decision Jemena – Public Lighting Model – May 2016* for the current regulatory period to determine operation, maintenance, repair and replacement (**OMR**) charges for the next regulatory period.	The AER made several adjustments to the public lighting model, including changes to the unit cost of LED luminaires, labour rates, the number of repairs performed in a day and updated weighted average cost of capital (**WACC**) and CPI to reflect the most market observations.	We **partially accept** the draft decision. We accept the changes to modelling inputs except for the number of repairs performed in a day.

Supporting materials

Additional information supporting JEN's positions is outlined in Table OV–3.

Table OV–3: Additional documents supporting this submission

Document reference	Document details
Attachment 03-01	Response to the AER's draft decision - Annual revenue requirement
Attachment 05-01	Response to the AER's draft decision - Operating expenditure
Attachment 09-01	This document
Attachment 03-06M	JEN – 03-06M Rate of Return Model – 20201203 – Public
Attachment 09-01M	JEN – 09-01M ACS Metering PTRM FY22-26 – 20201203 – Public
Attachment 09-02M	JEN – 09-02M ACS Metering RFM CY16-HY21 – 20201203 – Public
Attachment 09-03M	JEN – 09-03M ACS Metering Opex Model FY22-26 – 20201203 – Public
Attachment 09-07M	JEN – 09-07M ACS Metering Exit Fees Model – 20201203 – Confidential
Attachment 09-09M	JEN – 09-09M ACS Public lighting model – 20201203 – Public
Attachment 09-10M	JEN – 09-10M ACS Quoted Services Model – 20201203 – Public
Attachment 09-11M	JEN – 09-11M ACS Fee Based Services Model – 20201203 – Confidential

1. Smart metering services

Smart metering services are those services provided through our Advanced Metering Infrastructure. From a service classification perspective,[5] these services known as *Type 5 & 6 metering provision (including smart meters)* services.

1.1 Overview

Our revised proposal includes the forecasts for unsmoothed revenue, smoothed revenue and X-factors for the next regulatory period. We have prepared these forecasts using the AER's Post Tax Revenue Model (**PTRM**), consistent with the initial proposal and the draft decision. The building block forecasts that make up the revenue requirement represent the efficient costs for providing smart metering services.

The AER's draft decision smoothed revenue allowance for JEN is $112M ($ nominal), which is 12.6% lower than the revenue we proposed within our initial proposal. The lower revenue allowance reflects the actual operating expenditure in the CY19 base year, which was lower than the estimate we proposed in the initial proposal; and updates to the various elements of the building block.

Our revised smoothed revenue for smart metering services is $113M ($nominal), which is 11.9% lower than the revenue we proposed in our initial proposal, and largely consistent with the revenues outlined in the AER's draft decision. A summary of our revenue proposal for smart metering services from initial proposal, draft decision and this revised proposal is outlined in Table 1–1.

Table 1–1: Summary of the revenue forecasts [5 year totals] - ($Nominal, $M)

	Initial proposal	Draft decision	Revised proposal
Smoothed Revenue	128.2	112.1	112.9

Our revised proposal accepts the majority of the AER's draft decision and makes the following limited updates:

- updated forecast labour escalation based on the average of the most recent BIS forecast and the most recent DAE forecast[6]
- updated rate of return and CPI inputs to reflect the most recent set of market observables.

1.1.1 Annual revenue requirement forecast

Table 1–2 presents our revised proposal revenue by building block component.

Table 1–2: Annual revenue requirement forecasts - ($Nominal, $M)

	FY22	FY23	FY24	FY25	FY26	Total
Return on Capital	2.8	2.6	2.2	1.9	1.7	11.2
Regulatory Depreciation	7.2	8.1	8.7	9.3	10.4	43.7
Operating Expenditure	10.0	10.4	10.8	11.3	11.8	54.3
Revenue Adjustments	-	-	-	-	-	-
Corporate Income Tax	0.7	0.6	0.8	0.9	0.9	3.8
Building Block (unsmoothed)	**20.7**	**21.6**	**22.5**	**23.4**	**24.8**	**113.0**

5 See attachment 02-01.

6 See attachment 05-01 for the details of our approach to determining real labour escalation.

	FY22	FY23	FY24	FY25	FY26	Total
Revenue Requirement						

1.1.2 Smoothed revenue and price path

The AER's draft decision for smart metering services includes a price path that delivers significant price reductions for our customers in the first year of the next regulatory period followed by a flat real price profile in the remaining regulatory years. This was achieved by:

- setting equal X-factors between the second and last regulatory year of the next regulatory period to zero percent
- solving the remaining net present value difference between unsmoothed and smoothed revenue via the first year X-factor which resulted in a P0 value of 27.96%.

Table 1–3: AER draft decision smoothed revenue and real price changes - ($Nominal, $M)

	FY22	FY23	FY24	FY25	FY26	Total
Building Block (unsmoothed) Revenue Requirement	20.6	21.5	22.4	23.2	24.6	112.2
X-factors	27.96%(1)	-	-	-	-	N/A
Total Smoothed Revenue	**21.4**	**21.9**	**22.4**	**22.9**	**23.5**	**112.1**

(1) This is calculated based on the approved total annual revenue for CY20

Our revised proposal has adopted this same approach to setting the price path by updating the P0 to reflect changes in the annual revenue requirement.[7] More importantly, our price path is set in response to the preferences expressed by our customers.[8]

Firstly, we have slightly modified the X-factors applied evenly between the second and last regulatory years of the next regulatory period to satisfy the requirement to minimise the difference between unsmoothed and smoothed revenue in the final year[9] (targeting <+/-3%).

Secondly, we updated the P0 to account for all other changes in our revised annual revenue requirement for smart metering services. This ensures that customers will receive the benefits embedded within our revised proposal early while providing relatively stable prices over the forecast period.

Table 1–4: Revised proposal smoothed revenue and real price changes - ($Nominal, $M)

	FY22	FY23	FY24	FY25	FY26	Total
Building Block (unsmoothed) Revenue Requirement	20.7	21.6	22.5	23.4	24.8	113.0
X-factors	28.67%	(0.84)%	(0.84)%	(0.84)%	(0.84)%	N/A

7 The price path requirement in Chapter 6 of the NER under Part C—to minimise the variance between expected and annual revenue requirement in the last year of the next regulatory period [NER, s 6.5.9(b)(2)]—only applies to standard control services, and therefore, is not a requirement for smart metering services. Nevertheless, we have adopted the same approach when setting the price path for smart metering services for consistency across our broader reviser proposal and as a uniform way to meet our customer expectations by minimising price jumps into the subsequent regulatory period (i.e. from 1 July 2026).

8 JEN, *2021-26 Electricity Distribution Price Review, Regulatory Proposal, Attachment 02-04, Reconvening the Jemena People's panel*, Section 3.1.

9 NER, s. 6.5.9(b)(2).

	FY22	FY23	FY24	FY25	FY26	Total
Total Smoothed Revenue	**21.2**	**21.8**	**22.6**	**23.3**	**24.0**	**112.9**

1.2 Metering asset base

The metering asset base (**MAB**) reflects the value of the assets that we use in providing our smart metering services. It represents the unrecovered capital expenditure that we have incurred to provide services to our customers.

In our initial proposal we estimated that the value of our MAB at the start of the next regulatory period would be $60M ($nominal), and that it will decrease by approximately 33.9%, to $40M ($nominal) by the end of the next regulatory period as our metering assets get older.

1.2.1 AER's position from the draft decision

The AER's draft decision estimated the closing value of our asset base as at 30 June 2026 as $39M ($nominal).

To determine an ending MAB value, the AER made the following changes to our roll forward of the MAB in the current regulatory period and the regulatory period covering 1 January 2021 to 30 June 2021 (**intervening period**) up to 30 June 2021:

- amended CY16 lagged actual CPI to reflect a June to June series rather than a September to September inflation series which is consistent with the price control mechanism for the current regulatory period
- replaced the estimate with actual net capital expenditure for CY19 which was reported in the annual RIN response after the initial proposal was submitted
- updated the forecast capital expenditure in HY21 to align with the AER's final decision for the intervening period
- replaced the estimate with the actual inflation for the six month intervening period.

The AER also made the following changes to our roll forward of the MAB in the next regulatory period up to 30 June 2026:

- updated the opening MAB as at 1 July 2021 to capture the changes to the roll forward model (**RFM**) listed above
- updated the return on equity and return on debt placeholder values, and
- updated the forecast capital expenditure to reflect the impact of the COVID-19 pandemic and revised the standard life for equity raising costs to reflect the AER's forecast capital expenditure.

1.2.2 JEN's response to the draft decision

In the draft decision, the AER reduced our metering volume forecasts to reflect lower customer growth rates in between 2020 and 2022 due to COVID-19 pandemic.

When considering the AER's draft decision for smart metering services, we also undertook a review of the economic and social impacts of the COVID-19 pandemic. We undertook this review in response to our customers' focus on affordability, and also to consider whether the approach the AER took in its draft decision was materially the right approach. Having undertaken a detailed analysis,[10] we consider that the approach to adjusting customer numbers is reasonable. We have also obtained updated information that underpins the approach and note that there has not been any material decrease in those forecasts—in fact, there have been modest increases.

[10] See Appendix A of the *JEN 2021-26 Revised Regulatory Proposal, Overview*, December 2020.

Nevertheless, we accept the AER's adjustment methodology for customer number growth due to the COVID-19 pandemic. However, we consider this methodology should be updated with the latest HIA housing projections when the AER makes its final decision.

Table 1–5 provides an overview of our initial proposal MAB roll-forward, the AER's draft decision forecast and our revised proposal forecast.

Table 1–5: Forecast value of JEN's MAB - ($Nominal, $M)

	Initial proposal	Draft decision	Revised proposal
Opening MAB at 1 January 2015	114.5	114.5	114.5
Opening MAB at 1 January 2021	61.8	62.1	62.1
Opening MAB at 1 July 2021	60.3	60.6	60.6
Closing MAB at 30 June 2026	**39.9**	**38.9**	**39.0**

Our response to the AER's draft decision on our asset base is summarised in Table 1–6.

Table 1–6: Description of metering asset base impacts from the AER's draft decision

Draft decision item	AER position	JEN response
Current Period Roll Forward Model		
Opening balance – 1 January 2015	The AER accepted the opening MAB which JEN included in the initial proposal.	We **accept** the AER's draft decision.
Actual net capital expenditure – 1 January 2015 to 30 December 2020	The AER accepted the net capital expenditure values included in the initial proposal and replaced our estimate with actual net capital expenditure for CY19 which was reported in the annual RIN response after the initial proposal was submitted.	We **accept** the AER's draft decision.
Actual inflation on opening MAB – 1 January 2015 to 30 December 2020	The AER amended the CY16 lagged actual CPI to reflect a June to June series rather than a September to September inflation series, consistent with the price control mechanism for the current regulatory period.	We **accept** the AER's draft decision.
Intervening Period Roll Forward Model		
Forecast net capital expenditure – 1 January 2021 to 30 June 2021	The AER updated forecast capital expenditure for the intervening period after applying the June to June CPI series.	We **accept** the AER's draft decision.
WACC and forecast CPI on opening MAB – 1 January 2021 to 30 June 2021	The AER replaced the estimate with the actual inflation for the six month intervening period. The AER also amended forecast inputs for inflation and nominal vanilla WACC after making changes to the intervening period PTRM.	We **accept** the AER's draft decision. However, we have updated the nominal vanilla WACC for the intervening period to reflect the latest market observations.
Forecast Period Roll Forward		

Draft decision item	AER position	JEN response
Forecast net capital expenditure – 1 July 2021 to 30 June 2026	The AER updated the capital expenditure forecast by: • updating actual and forecast CPI including switching from an unlagged December to December profile to a lagged June to June profile. This aligned the capital expenditure forecast with the approach taken within the RFM • substituting our initial proposal labour escalation with a revised DAE forecast to account for the impact of COVID-19 pandemic • reducing metering volume forecasts to reflect lower customer growth rates in between CY20 and CY22 due to the COVID-19 pandemic.	We **partially accept** the AER's draft decision. JEN accepts the alternative CPI profile and lower customer growth rates applied by the AER. JEN's labour escalation forecast reflects the AER's past practice of relying on more than one expert forecaster where available. JEN has provided updated forecasts from BIS that account for the impacts of the COVID-19 pandemic and superannuation guarantee changes which we have then averaged with the AER's DAE forecast.
Forecast straight-line depreciation – 1 July 2021 to 30 June 2026	The AER updated forecast depreciation to capture the new closing RFM balance, draft decision asset remaining lives and the updated capital expenditure forecast.	We **accept** the AER's draft decision with minor updates to include the impact of labour escalation on our capital expenditure forecast.
Forecast inflation – 1 July 2021 to 30 June 2026	The AER's draft decision includes an estimate of expected inflation of 2.37%. The AER recognised in the draft decision that they are currently undertaking a review into the regulatory treatment of inflation within the regulatory framework, including the method likely to result in the best estimates of expected inflation.	We **accept** the AER's draft decision to apply the glide path method. We recommend the AER applies the new method without any transition. For our revised proposal we have simply adopted the AER draft decision value as a placeholder.
Forecast WACC – 1 July 2021 to 30 June 2026	The AER applied the modified 2018 Rate of Return Instrument (**RORI**) to calculate a forecast WACC for the next regulatory period.	We **accept** the AER's draft decision. However, we are concerned that the RORI is resulting in unrealistic low rates of return in the current low interest rate environment, which is unsustainable. Our revised proposal uses updated WACC forecast with an alternative placeholder containing more recent market observables. However, we expect the AER to update this value in its final decision using our proposed averaging periods.

1.2.3 Revised proposal metering asset base

We have updated our MAB forecast in our revised proposal for the next regulatory period after updating the roll forward of the MAB in the current regulatory period.

1.2.3.1 Closing metering asset base as at 30 June 2021

We have developed a revised estimate of our closing MAB as at 30 June 2021, which has been updated to account for the new actual nominal vanilla WACC for the intervening period.

Table 1–7 sets out the roll forward of the MAB over the current regulatory period and the intervening period.

Table 1–7: Roll forward of the MAB in the current and intervening periods - ($Nominal, $M)

	CY16	CY17	CY18	CY19	CY20	HY21
Opening balance	114.5	100.4	84.3	75.5	69.0	62.1
Add indexation of MAB	1.7	1.0	1.6	1.6	1.1	0.8
Add net capital expenditure	1.4	0.4	3.2	4.1	3.0	2.2
Less straight-line deprecation	(17.3)	(17.5)	(13.6)	(12.1)	(11.0)	(4.5)
Adjustments	-	-	-	-	-	-
Closing balance	**100.4**	**84.3**	**75.5**	**69.0**	**62.1**	**60.6**

1.2.3.2 Forecast asset base for the next regulatory period

We have developed a revised forecast of our MAB over the next regulatory period, set out in Table 1–8, which incorporates our revised net capital expenditure forecasts and depreciation forecasts.

Table 1–8: Roll forward of the asset base over the next regulatory period - ($nominal, $M)

	FY22	FY23	FY24	FY25	FY26
Opening balance	60.6	57.9	53.0	47.5	43.7
Add net capital expenditure	4.5	3.2	3.2	5.5	5.7
Less straight-line depreciation	(8.7)	(9.4)	(10.0)	(10.5)	(11.4)
Add inflation on opening MAB	1.4	1.4	1.3	1.1	1.0
Closing balance	**57.9**	**53.0**	**47.5**	**43.7**	**39.0**

1.3 Rate of return forecast

1.3.1 Rate of return overview

The rate of return forecast is important for promoting efficient prices in the long-term interests of consumers. If the rate of return is set too low, the network business may not be able to attract sufficient funds for the required investments in the network to maintain the quality of service expected by our customers. Conversely, if the rate of return is set too high, customers will pay inefficiently high tariffs. We have updated our rate of return estimate using recent market observations.[11]

[11] Refer to Section 3.1 of Attachment 03-01 for our overview of rate of return.

1.3.2 Return on debt and equity

Refer to Section 3.2 of Attachment 03-01 for our discussion on the AER's draft decision relating to the return on debt and equity.

1.3.3 Revised proposal rate of return

Refer to Section 3.3 of Attachment 03-01 for our discussion on rate of return for the revised proposal.

1.3.4 Inflation

Refer to Section 3.4 for our discussion on the AER's draft decision on inflation and our response.

1.4 Regulatory depreciation forecast

Depreciation represents the decline in the value of an asset over time. Including forecast regulatory depreciation in our revenue requirement enables us to recover our investment in our distribution network over time in accordance with the economic lives of our assets. It enables us to finance the purchase of replacement assets so that we can continue to provide our services in the future.

In our initial proposal, we estimated regulatory depreciation of $41M ($2021) over the next regulatory period.

1.4.1 AER's position from the draft decision

In its draft decision, the AER determined an amount of $41M ($2021) over the next regulatory period, which is 0.5% less than the forecast in our initial proposal.

Table 1–9: Comparison of regulatory depreciation forecasts - ($2021, $M)

	Initial proposal	Draft decision	Revised proposal
Straight line depreciation	46.6	46.4	46.4
Less indexation	(5.9)	(5.8)	(5.8)
Forecast regulatory depreciation	**40.8**	**40.6**	**40.6**

In its draft decision, the AER made some minor changes to our initial proposal which we discuss further in our response to the draft decision.

1.4.2 JEN's response to the draft decision

Our response to the key elements of the AER's draft decision on regulatory depreciation is summarised in Table 1–10.

Table 1–10: JEN's response to AER draft decision on regulatory depreciation

Draft decision item	AER position	JEN response
Calculation of the regulatory depreciation allowance	The AER accepted our approach to calculating the regulatory depreciation allowance. The AER accepted the use of the weighted average remaining lives method for determining straight-line depreciation for the opening value of	We **accept** the AER's draft decision.

Draft decision item	AER position	JEN response
	each asset class and incremental capital expenditure over the next regulatory period.	
Asset classes	The AER accepted our proposed asset classes which adds two new asset classes for in-house software and buildings.	We **accept** the AER's draft decision.
Remaining asset lives	The AER revised the remaining asset lives based on the outputs of its draft decision RFM.	We **partially accept** the AER's draft decision. Our remaining asset lives reflect our revised proposal RFM.
Standard asset lives	The AER accepted the proposed standard asset lives except for the 'Equity raising costs' asset class.	We **partially accept** the AER's draft decision. We accept the proposed standard asset lives for all assets except for 'Equity raising costs'. The standard asset life for 'Equity raising costs' in our revised proposal reflects our updated capital expenditure forecasts.
Regulatory depreciation for the next regulatory period	Reduced our forecast regulatory depreciation resulting from the AER's reduced capital expenditure forecast for the next regulatory period.	We **partially accept** the AER's draft decision. Our forecast of regulatory depreciation is slightly greater than the AER's draft decision due to our updated capital expenditure forecast.

1.4.3 Revised proposal regulatory depreciation forecast

Table 1–11 summaries our revised forecast of regulatory deprecation over the next regulatory period. *Attachment 09-01M ACS Metering PTRM FY22-26* provides the underlying calculations.

Table 1–11: Forecast regulatory depreciation for the next regulatory period - ($2021, $M)

	FY22	FY23	FY24	FY25	FY26	Total
Straight line depreciation	8.5	9.0	9.3	9.5	10.2	46.4
Less indexation	(1.4)	(1.3)	(1.2)	(1.0)	(0.9)	(5.8)
Regulatory depreciation	**7.1**	**7.7**	**8.1**	**8.5**	**9.2**	**40.6**

1.5 Operating expenditure

This section sets out our response to the AER's draft decision on our forecast operating expenditure for the next regulatory period. It also sets out our revised operating expenditure forecast.

In our initial proposal, we forecast operating expenditure using the base-step-trend approach applied in the AER's operating expenditure model. Using this approach, we forecast operating expenditure of $64M ($2021) for the next regulatory period. We noted that in our revised proposal we will update our estimate for base year operating expenditure in CY19 with actual operating expenditure reported in our annual RIN response.

1.5.1 AER's position from the draft decision

The AER's draft decision operating expenditure forecast is $50M ($2021), which is 22.3% lower than the operating expenditure we proposed in our initial proposal.

In its draft decision, the AER has:

- replaced our estimate for base year operating expenditure in CY19 with actual operating expenditure which we reported in our annual RIN response after we submitted the initial proposal
- revised customer growth forecasts to reflect the expected impact of the COVID-19 pandemic.
- replaced our forecast for labour escalation with a revised DAE forecast which takes the impact of the COVID-19 pandemic into account.

Table 1–12: Comparison of operating expenditure forecasts - ($2021, $M)

	Initial regulatory proposal	Draft decision	Revised proposal
Operating expenditure (excluding debt raising costs)	63.7	49.5	50.4

1.5.2 JEN's response to the draft decision

Our response to the key elements of the AER's draft decision on operating expenditure are summarised in Table 1–13.

Table 1–13: JEN's response to AER draft decision on operating expenditure

Draft decision item	AER position	JEN response
Selection of base year	The AER accepts CY19 as the base year for smart metering services.	We **accept** the AER's draft decision.
Adjustments to base year	The AER has replaced our estimate with actual operating expenditure for CY19 which was reported in our annual RIN after the initial proposal was submitted.	We **accept** the AER's draft decision.
Trending of base year – output growth	The AER has revised customer growth rates to reflect the impact of the COVID-19 pandemic.	We **accept** the AER's draft decision. We accept the AER's forecast customer growth rate[12].
Trending of base year – input growth	The AER replaced our initial proposal labour escalation with a revised DAE forecast to account for the impact of the COVID-19 pandemic. The AER applied rounded numbers from the DAE report and included an annual rate for the half-year period HY21 (i.e. intervening period).	We **partially accept** the AER's draft decision. Our forecast labour escalation uses the AER's past practice of relying on more than one expert forecaster where available. JEN has provided updated forecasts from BIS that account for the impacts of the COVID-19 pandemic and superannuation guarantee changes which we have then averaged with the AER's DAE forecast.

[12] For consistency, we updated the CY19 customer numbers in the metering operating expenditure model to align with our re-stated figure in the RIN response for that year, but this does not impact the rate of change applied in the model.

Draft decision item	AER position	JEN response
		We also updated the AER's DAE forecast to unrounded numbers and applied half-year rate for HY21 consistent with the forecast in the AER's draft decision capex model[13].
Trending of base year – productivity	The AER accepts productivity growth of 0% in our initial proposal.	We **accept** the AER's draft decision.
Specific forecasts	The AER accepts that no specific forecasts are required.	We **accept** the AER's draft decision.
Step changes	The AER accepts that no step change forecasts are required.	We **accept** the AER's draft decision.

1.5.3 Revised proposal operating expenditure forecast

Our revised forecast operating expenditure (excluding debt raising costs) for the next regulatory period is $50M ($2021), which is only $1M higher[14] than the AER's draft decision, and $13M lower than our initial proposal.

We have updated our operating expenditure forecast to reflect our labour escalation forecast based on the average of the most recent BIS forecast and the DAE forecast.

Table 1–14: Forecast operating expenditure for the next regulatory period - ($2021, $M)

	FY22	FY 23	FY 24	FY25	FY26	Total
Adjusted base year operating expenditure	9.4	9.4	9.4	9.4	9.4	47.1
Overall rate of change	0.3	0.5	0.6	0.8	1.1	3.3
Specific forecasts	-	-	-	-	-	-
Step changes	-	-	-	-	-	-
Total operating expenditure (excl debt raising costs)	**9.7**	**9.9**	**10.1**	**10.3**	**10.5**	**50.4**

1.5.3.1 Debt raising costs

The debt raising costs are calculated as per the AER's draft decision.

1.6 Corporate income tax forecast

The regulatory framework enables network companies to recover the efficient tax costs from customers to meet their tax obligations.[15]

13 AER, *Draft decision - Jemena distribution determination - 2021–26 - Capex Model*, September 2020, worksheet 'Input|CPI_Escalation'.

14 The $1M is calculated as the difference the $49.5M included in the draft decision and the $50.4M included in our revised proposal. Although both figures round to $50M, the difference between them remains $1M.

15 NEL, s. 7A(1) – A DNSP is afforded a reasonable opportunity to recover it's efficient cost.

1.6.1 AER's position from the draft decision

In its draft decision, the AER has accepted our proposed method for calculating the corporate income tax allowance, including our proposed tax depreciation method and depreciation rates.

The AER has forecast the corporate income tax allowance to reflect its draft decision on other building block components. Consequently, the AER's adjusted estimate of the tax building block is $4M which is approximately 0.1% below what we proposed in our initial proposal.

Table 1–15: Comparison of net tax allowance forecasts - ($2021, $M)

	Initial proposal	Draft Decision	Revised Proposal
Corporate income tax	3.5	3.5	3.5

1.6.2 JEN's response to the draft decision

Our response to the key elements of the AER's draft decision on corporate income tax are summarised in Table 1–16.

Table 1–16: JEN's response to AER draft decision on corporate income tax

Draft decision item	AER position	JEN response
Value of imputation credits	The AER accepted our gamma proposal which was consistent with the 2018 RORI.	We **accept** the AER's draft decision.
Corporate income tax	The AER accepted our approach to calculating our forecast corporate income tax. However, the AER updated other elements of our initial proposal which impacted the tax calculation.	We **partially accept** the AER's draft decision. We have developed an updated forecast of corporate income tax, which reflects our revised proposal annual revenue requirement and capital expenditure forecast.

1.6.3 Revised proposal income tax

We have updated our corporate income tax forecast to reflect our:

- revised annual revenue requirement for the next regulatory period and
- updated capital expenditure forecasts.

The tax building block calculated in the PTRM is consistent with the 2018 RORI and the AER's recommendations in its recent 2018 tax review.

Table 1–17: Corporate income tax for the next regulatory period - ($2021, $M)

	FY22	FY23	FY24	FY25	FY26	Total
Taxable income	5.2	4.5	5.7	6.3	6.5	28.2
Corporate income tax	1.6	1.4	1.7	1.9	2.0	8.5
Less value of imputation credits	(0.9)	(0.8)	(1.0)	(1.1)	(1.1)	(5.0)

	FY22	FY23	FY24	FY25	FY26	Total
Corporate income tax	**0.7**	**0.6**	**0.7**	**0.8**	**0.8**	**3.5**

1.7 Smart metering charges

JEN proposes to continue setting smart metering charges for its four metering charge types in the next regulatory period, consistent with approach adopted in the current regulatory period.

To determine smart metering prices for each metering charge type, we apply the price control formulae as set out in Attachment 06-01, which set actual price each regulatory year through the annual pricing process. In essence, we apply the revenue cap formula and inputs set out in the previous sections to calculate metering charges for the next regulatory period. The key inputs are:

- the smoothed annual revenue requirement for the first regulatory year of the next regulatory period
- the real price movement in the annual revenue requirement (x-factors) for setting prices in the remaining regulatory years of the next regulatory period.

Our first year indicative prices are set out in Table 1–18.

Table 1–18: Comparison of metering charges per meter for FY22 ($Nominal, dollars)

Meter type	Initial proposal	Revised proposal
Single-phase	66.39	56.21
Single-phase, two-element	66.39	56.21
Three-phase (direct connect)	80.49	68.81
Three-phase (current transformer (CT) connect)	89.77	76.41

Source: (1) Initial proposal: JEN-Att 08-01 Tariff Structure Statement – 20200131 – Public.
(2) Revised proposal: JEN-Att 12-03 Indicative prices – 20201203 - Public

Actual prices may vary because of a number of factors, including under or over collection of revenue from year to year and movements in CPI. Prices will be submitted to the AER for their consideration as a part of the annual pricing approval process.

Table B1–1 of Appendix B1, shows our revised indicative smart metering charges ($Nominal) for each year of the next regulatory period when following the above approach.

1.8 Metering exit fees

Metering exit fees allow us to recover the written down value of a smart meter, as well as the efficient cost of removing and disposing of the meter.

The AER has maintained its final F&A position to apply price caps to auxiliary metering services (such as metering exit fees) as the form of price control.

Table 1–19 summarises the metering exit fees ($nominal) for FY22 in the AER's draft decision and our revised proposal.

Table 1–19: Comparison of metering exit fees for FY22 - ($Nominal, dollars per meter)

Meter Type	Initial proposal[16]	Draft Decision	Revised Proposal
All smart meter types	235.82	235.51	235.82

1.8.1 AER's position from the draft decision

In its draft decision, the AER has:

- replaced the labour escalation forecasts in our initial proposal with a revised DAE forecast to account for the impact of the COVID-19 pandemic.
- updated the opening MAB to reflect its draft decision RFM and
- updated roll forward of the MAB in line with its draft decision PTRM.

Table 1–20 summarises the metering exit fees ($nominal) over the next regulatory period in the AER's draft decision.

Table 1–20: Draft decision metering exit fees for the next regulatory period - ($Nominal, dollars)

Meter Type	FY22	FY23	FY24	FY25	FY26
All smart meter types	235.51	222.23	205.44	190.17	176.39

1.8.2 Revised proposal metering exit fees

Our revised proposal metering exit feels for the next regulatory period is summarised in Table 1–21. We have updated our metering exit fees to reflect:

- our revised labour escalation rates which use the average of the DAE forecast and an updated BIS forecast with superannuation guarantee increments
- our revised opening MAB at 1 July 2021 in line with our revised proposal RFM
- our revised MAB roll forward over the next regulatory period in line with our revised proposal PTRM.

Table 1–21: Revised proposal metering exit fees for the next regulatory period - ($Nominal , dollars)

Meter Type	FY22	FY23	FY24	FY25	FY26
All smart meter types	235.82	222.90	206.46	191.60	178.28

Appendix B1 contains our revised proposal X-factors for metering exit fees.

[16] Jemena did not calculate metering exit fees in nominal terms in the initial regulatory proposal. For presentation purposes we have converted the Real 2021 outputs into nominal dollars based on the methodology applied within the draft decision.

2. Network ancillary services

Network ancillary services share the common characteristics of being provided to individual customers upon their request. When considering the range of services offered, and consistent with the regulatory processes used to classify services, the AER and JEN has taken 'ancillary services' to refer to the following service groupings in the AER's F&A:[17]

- ancillary network services
- basic connection services
- connection management services
- auxiliary metering services.

Ancillary services involve work on, or in relation to, parts of our electricity distribution networks. Therefore, only JEN may perform these services. Because of the monopoly nature of these services, the AER has classified the above services as alternative control services—consistent with the requirements of the National Electricity Rules (**NER**). Setting the maximum prices for these services will be subject to the price control mechanisms set out in the AER's final determination for JEN.

The AER has determined fixed prices for the ancillary services that we propose to provide to customers on a fee basis in the next regulatory control period. For the remaining ancillary services, prices will be determined by JEN on a quoted basis taking into consideration the quantities of labour and materials required, with the quantities dependent on a particular task and labour rates approved by the AER. Contractor costs incurred by JEN are also added to the quoted service charge.

2.1 Overview of the alternative control services price structures

Table 2–1 sets out and compares the alternative control services pricing structure outlined in JEN's initial proposal, the AER's draft decision and our revised proposal in relation to the ancillary services.

Table 2–1: Summary of alternative control services price structures in the initial proposal, AER's draft decision and our revised proposal

Initial proposal	Draft decision	Revised proposal
We proposed price caps to ancillary services as the form of control as set out in the final F&A paper, except with a change to the price cap formula for quoted services. We added explicit tax and margin components to the formula.	The draft decision is to maintain the final F&A position to apply price caps to ancillary services as the form of control. The AER rejected our proposal to add margin and tax to the pricing formula for quoted services.	We **partially accept** the AER's draft decision. We accept the disallowance of tax, but do not accept the rejection of margin in the draft decision.[18]
We proposed fees for 20 ancillary services and wasted site visit fees, which are applicable when we are prevented from completing the service for reasons beyond our control.	The AER accepted JEN's proposed fees for fee-based ancillary services except for certain connection services fees, customer access to data charge, and requiring JEN to offer a separate price for testing additional meters.	We **accept** all the AER's draft decision fees for our proposed fee-based ancillary services. Further, we clarify that the 'customer access to data' service is free of charge; and that the meter test fee will apply only once—even when testing multiple meters at a customer's premises.

[17] AER, *Final framework and approach, AusNet Services, CitiPower, Jemena, Powercor and United Energy Regulatory control period commencing 1 January 2021,* January 2019.

[18] See section 2.4.1 for further details on our response to the price control mechanisms.

Initial proposal	Draft decision	Revised proposal
We proposed taking the average of 2019 DAE and BIS forecasts for labour escalation.	The AER retained the labour escalation rates in our initial proposal to escalate hourly labour rates between CY18 and FY22.	We **partially accept** the AER's draft decision. As discussed in Section 1.5.2, we forecast labour escalation using the AER's past practice of relying on more than one expert forecaster where available. JEN has provided updated forecasts from BIS that account for the impacts of the COVID-19 pandemic and superannuation guarantee which we have then averaged with the updated DAE forecast.
We proposed labour rates for labour categories, including: • Administrative employee • Field worker • Technical specialist • Engineer • Senior Engineer.	The AER accepted JEN's proposed labour rates for Administrative employee, Field worker and Technical specialist, but rejected the proposed labour rates for Engineer and Senior engineer. For the 'Engineer' and 'Senior Engineer' labour types, the AER substituted its consultant's maximum recommended hourly rate. The AER applied separate rates for business-hours and after-hours for the Field worker labour category.[19]	We **partially accept** the AER's draft decision. We accept using Marsden Jacob hourly rates for 'Engineer' and 'Senior Engineer' and have escalated these rates with our revised proposal FY22 labour escalation. The hourly labour rates in our revised proposal for other labour categories also reflect our updated labour escalation rates. We have also included a vehicle allowance in the hourly rate of a Technical specialist.

2.2 Initial proposal

2.2.1 Form of control

In our initial proposal, we proposed to apply price caps to ancillary services as the form of control, consistent with the final F&A paper. However, we proposed adding explicit tax and margin components in the price cap formula for quoted services..

We proposed to apply fixed prices where the scope of the ancillary services is relatively consistent and where the activities involved in providing the service are generally uniform.

For the remaining ancillary services, we proposed prices that will be quoted by way of a cost-pass through—using labour rates approved by the AER, along with the cost of materials, contractors, tax and margin. This approach was proposed because the activities involved in providing these service vary significantly between customer requests, and therefore prices can only be determined when the scope of the work is known.

2.2.2 Fee-based services

JEN's proposed fee-based services for the next regulatory period are mostly the same as those for the current regulatory period. We proposed fees for 20 ancillary services, including wasted site visit fees. The later fees apply when we are prevented from completing the service for reasons beyond our control. We also added a new service for metrology service pertaining to non-contestable unmetered loads because of a new NER obligation introduced by the Global Settlement Rule change[20].

19 Jemena, *Information Response to information request #055 – Questions on quoted and fee-based service charges, 21 July 2020*

20 AEMO, *Metrology Procedure, Part B Metering data validation, substitution and estimation*, version 7.1, 8 October 2019.

In the final F&A paper, the AER considered that 'service vehicle visits' were not a service, but an activity to deliver a service—and therefore 'service vehicle visits' were not classified. Consequently, we proposed equivalent fees for a suite of services—which are covered under the 'service vehicle visit' activity—when compared to the current regulatory period. These are:

- upgrade of basic connection (1-phase to 3-phase, up to 100 Amps)
- replacement of 1-phase overhead service line (up to 100 Amps)
- replacement of 3-phase overhead service line (up to 100 Amps)
- disconnection (temporary)
- reconnection after temporary disconnection
- meter alteration.

We proposed prices that are based on forecast efficient costs of delivering the services, including labour and materials costs, charges JEN pays to service providers, administrative and other direct costs, indirect costs (overheads) and margin. We also included a taxation allowance for services that are capital in nature.

Further, we proposed to offer remote special meter read, energisation and de-energisation services free of charge, as we responded to our People's Panel recommendation to address affordability concerns and to assist the more vulnerable members of our community.[21]

2.2.3 Quoted services

We proposed labour rates for quoted services as used in the construction of fee-based services for the next regulatory period. We proposed labour rates for labour categories, including:

- Administrative employee
- Field worker
- Technical specialist
- Engineer
- Senior engineer.

To determine the rates for each labour category, we followed the same calculation methodology used in the report prepared for the AER by Marsden Jacob Associates during the distribution determinations for NSW, Tasmania and the Northern Territory.[22] For each labour type, we proposed rates that comprise raw labour costs, on-costs and overheads. JEN also included a vehicle allowance for the 'Field worker' category only.

To calculate quoted prices, we proposed to apply the applicable labour unit rates approved by the AER—multiplied by the time taken by each applicable labour category—and then add the costs of materials, contractor services, a margin and tax.

2.3 Draft decision

2.3.1 Form of control

The AER's draft decision is to maintain the final F&A position to apply price caps to ancillary services as the form of control.

21 Proportionality, the vulnerable members of our community arm more likely to use this service than the non-vulnerable.

22 Marsden Jacob Associates, *Review of Alternative Control Services, Prepared for Australian Energy Regulator*, September 2018.

Under a price cap form of control for fee-based services, the AER sets a schedule of prices for the first year of the next regulatory period. For the subsequent years, the prices for ancillary services charged on a fee basis are determined by adjusting the prior year's prices in accordance with the form of control mechanism.

For services offered on a quoted basis, the AER sets a schedule of labour rates for the first year of the next regulatory control period. For the subsequent years of the regulatory control period, these labour rates are adjusted in accordance with the form of control mechanism.

The price caps for quoted services are determined by applying the approved labour rates and the formula set out in the form of control mechanisms.

The AER rejected our proposal to add explicit margin and tax components to the price cap formula for quoted services and the reasons are set out in the *AER's Draft Decision, Attachment 14 − Control mechanisms*.

2.3.2 Fee-based services

The AER's draft decision is to accept JEN's proposed charges for fee-based ancillary services except for:

- certain connection services fees
- customer access to data charge.

The AER's draft decision also requires JEN to offer a separate (and lower) price for testing additional meters under its 'Meter test of types 5, 6 and AMI smart metering installations' service—or otherwise make explicit that customers do not incur the fee again for additional meters tested.

2.3.2.1 Connection service fees

After the submission of our initial proposal, the AER raised concerns with our approach to using a simple average of business and after-hours labour rates for certain connection services. Subsequently, we proposed to revise the 'Field worker' labour inputs in our connection service model by applying the business-hours and after-hours field worker labour rates separately. The AER considered the revision reasonable.[23]

2.3.2.2 Abolishment of charges

The AER considered that JEN has largely chosen appropriate services to offer free of charge from the start of the next regulatory period—which are remote special meter read, energisation and de-energisation services. However, the AER required JEN to offer the 'Customer access to data' service free of charge, noting that we may offer this service as a quoted service for more complex requests.

2.3.2.3 Meter tests – charge for additional meter

Where JEN is responsible for providing metering services, a customer can request a test to verify the meter is accurately measuring the amount of energy consumed. We offer the meter test service for a fee, and in the case of a meter being proven to be faulty, we waive the charge. The AER has accepted our proposed fee but sought to clarify whether JEN will apply the fee only once—even when testing multiple meters—or whether JEN would apply the fee for each meter tested.[24]

2.3.3 Labour rates

Table 2–2 shows the draft decision maximum labour rates that JEN is required to apply in calculating charges for quoted services offered. The AER accepted four of our proposed labour rates as they fall within the AER's

[23] AER, *Draft Decision, Jemena Distribution Determination 2021 to 2026, Attachment 16, Alternative control services,* September 2020, p. 13.

[24] Ibid., p.15.

consultant's maximum recommended total hourly rates. For the Engineer and Senior Engineer labour types, the AER substituted its consultant's maximum recommended hourly rate.

Table 2–2: AER draft decision – FY22 hourly labour rates (incl. on-costs and overheads – ordinary hours except as indicated - ($2021, dollars)

Labour category	Initial proposal	Draft decision
Administration	91.05	91.05
Field worker[(1)]	155.06	155.06
Technical specialist	142.39	142.39
Engineer	172.34	150.69
Senior engineer	217.47	197.05
Field worker (after hours)[(1),(2)]	236.00	236.00

(2) JEN's hourly labour rates for 'Field worker' include a vehicle allowance.
(3) JEN did not propose after-hours rates for other labour types.

2.4 Revised proposal

In this revised proposal we largely accept the draft decision with respect to the form of price control and the setting of prices for the first regulatory year; however, we propose a few changes below in section 2.4.2 and 2.4.3.

2.4.1 Form of control

In this revised proposal, we accept the AER's draft decision to maintain the final F&A position to apply price caps to ancillary services as the form of control, except for the price cap formula for quoted alternative control services. We accept the AER's rejection of our proposal to add a tax component to the formula, but do not accept the rejection of our proposal to add a margin component to the formula.

Our reasons in support of adding a margin component to the price cap formula for quoted services is set out in our revised proposal Attachment 07-01 – Control mechanisms.

2.4.2 Fee-based services

In our revised proposal, we:

- accept using of Marsden Jacob's recommended maximum total hourly rates for 'Engineer' and 'Senior engineer' in FY22 and have escalated these rates by our revised proposal FY22 labour escalation
- updated the FY22 hourly rates of the other labour categories using our revised proposal labour escalation rates for CY19 to FY22 (which lowers the hourly rates compared to the AER's draft decision)
- included a vehicle allowance in the hourly rate for 'Technical specialist'
- proposed to offer 'customer access to data' service free of charge. However, we propose to charge on a quoted basis for more complex requests—that is, the request is not the first request made by the customer within the preceding year or the request interval data relates to a period before the preceding two years[25]
- clarified that the meter test fee for 'meter test of types 5, 6 and AMI smart metering installation' will apply only once—even when testing multiple meters at a customer's premises.

In Appendix A1, to this document, we have set out our revised proposal fees for fee-based ancillary services prices for the first year of the next regulatory period and the price escalators for adjusting the prices for subsequent

[25] Advanced Metering Infrastructure (AMI Tariffs) Order, Gazette No S216 Wednesday 19 June 2013..

regulatory years. Further, we have expanded the descriptions of the connection management services to limit the fee-based services to basic connections up to three phase with 100 Amps capacity.

2.4.3 Labour rates

We accept the AER's labour rates of all the labour categories for quoted services in the draft decision; however, we seek to alter the hourly rate for Technical specialist.

In the revised proposal, we have included a vehicle allowance in the hourly rate of a Technical specialist, as they are out in the field carrying out inspection and auditing services. Not including a vehicle allowance to the hourly rate of a Technical specialist in the initial proposal was an oversight. This cost treatment is consistent with the way JEN allocates cost in its Cost Allocation Methodology document.[26] We note, including a vehicle allowance for Technical specialist increases the hourly rate from $141.92 to $163.61 ($2021), which continues to be below the maximum rate developed by the AER's consultant Marsden Jacobs[27] of $171.34 ($2021).

Table 2–3 compares AER's draft decision maximum total hourly labour rates and JEN's revised total hourly labour rates to apply in calculating charges for quoted services for each labour type.

Table 2–3: Comparison of AER's draft decision FY22 maximum total hourly labour rates and JEN's revised proposal hourly labour rates (incl. on-costs and overheads) - ($2021, dollars)

Labour category(1)	AER's draft decision maximum total hourly labour rates	JEN's revised proposal total hourly labour rates(2)
Administration	91.05	90.75
Field worker(3)	155.06	154.55
Technical specialist(4)	142.39	163.61
Engineer	150.69	151.50
Senior engineer	197.05	198.11
Field worker (after hours)(3)	236.00	235.23

Source: *JEN – 09-11M ACS Quoted Services Model – 20201203 – Public*

(1) Maximum total hourly labour rates including on-costs and overheads for FY22.
(2) Our rates are different from the AER's draft decisions following updates to labour rate escalation between CY19 and FY22.[28]
(3) JEN's hourly labour rates for 'Field worker' include a vehicle allowance.
(4) JEN's revised proposal hourly labour rate for 'Technical specialist' include a vehicle allowance.

In Appendix A1 to this document, we have set out our revised total hourly labour rates for the first regulatory year and the labour rate escalators for adjusting the labour rates for subsequent regulatory years.

26 JEN, *Cost Allocation Methodology*, 29 Mar 2019, see Table3-2, fleet operating costs.

27 JEN, *Cost Allocation Methodology*, v3.1, 29 March 2019, section 3.2.

28 The AER retained the labour escalation rates from our initial regulatory proposal to escalate hourly labour rates from CY18 to FY22 in *AER - Draft decision - Jemena distribution determination - 2021–26 - ACS Quoted Services Model - September 2020*. In this revised proposal we have replaced these with updated labour rates in our revised proposal, see Table 1–13

3. Public lighting services

JEN provides public lighting services in accordance with the Victorian Essential Service Commission's public lighting code.[29] We provide these services to 13 municipal councils and the VicRoads Authority. We currently have more than 76,000 public lights comprised of 19 different light types.

Over the next regulatory period, we propose to deploy more energy-efficient lights, as has been requested by our public lighting customers. This includes the replacement of all minor road mercury vapour lights at the time the lights are scheduled for bulk lamp replacement and replacement of unserviceable minor and major road lights with LED equivalents.

We expect to deploy LEDs, which will increase the proportion of lights rising from 24% at the start of 2021 to 43% by the end of the next regulatory period. This includes public lights on both major and minor roads.

3.1 Overview of public lighting services

Table 3–1 sets out and compares JEN's public lighting initial proposal for the next regulatory period, the AER's draft decision and our revised proposal response.

Table 3–1: Summary of public lighting services in the initial proposal, AER's draft decision and revised proposal

Initial proposal	Draft decision	Revised proposal
JEN updated the inputs to the *Final Decision Jemena – Public Lighting Model – May 2016* for the current regulatory period to determine OMR charges for the next regulatory period.	The AER made several adjustments to the public lighting model, including changes to the unit cost of LED luminaires, labour rates, and the number of repairs performed in a day. (See sections 3.3.2, 3.3.3 and 3.3.4)	We **partially accept** the draft decision. We accept the changes to modelling inputs except for the number of repairs performed in a day. In this revised proposal we also update the model inputs for the latest information, these include: • real pre-tax WACC and actual inflation based on the methods used in determining Standard Control Service revenue • forecast labour escalation based on the method used to escalate Standard Control Service labour rates • forecast light volumes for CY19 with actual, and • capital and operating expenditures with actual for CY19 as reported in the RIN.
JEN proposed unit costs for four types of LED luminaires.	The AER amended JEN's LED luminaire unit costs to reflect the benchmark rates of CitiPower, Powercor and United Energy.	We **accept** the AER's draft decision.

[29] Essential Services Commission of Victoria, *Public Lighting Code*, Version 2, December 2015.

Initial proposal	Draft decision	Revised proposal
JEN proposed increases to the labour rates.	The AER reduced JEN's proposed labour rates by substituting the proposed rates of Powercor, which are in the mid-point of the Victorian distribution businesses proposed rates.	We **accept** the AER's draft decision.
Consistent with the AER's decision for the current regulatory period, JEN proposed 15 repairs per day for MV80 in urban areas and 12 in rural areas; and adjusted the number of repairs per day for all other Category P lights, including, T5 and LED 18W lights.	The AER substituted United Energy proposed repairs per day, which vary across Category P lights.	We **do not accept** the AER's draft decision. We consider the volumes used in the draft decision public lighting model to be materially excessive, and does not reflect actual work practices necessary to provide public lighting services safely in our service area (see section 3.4).
All other changes to the model structure and in JEN's initial proposal.	The AER accepted all other changes to the model structure and in JEN's initial proposal	We **accept** the AER's draft decision.

3.2 Initial proposal

The focus of our initial proposal was to explain how we engaged with our customers—including our local councils—to understand what they wanted from us when it comes to us providing public lighting services. Our initial proposal also explained how we derived the OMR charges for the next regulatory period. We did this by adopting the AER's final decision public lighting model for the current regulatory period,[30] updating the model inputs and making minor modifications to the model.

[30] AER, *Final Decision Jemena, Public Lighting model*, May 2016.

Figure 3–1: Consulting with our customers on public lighting services

3.2.1 Prices and form of control

We proposed to apply the price control formula for fee-based alternative control services as set out in Attachment 07-07 (see section 1.1.3.1) of our initial proposal. The charges are inclusive of real price escalators (implied X-factors) and forecast CPI. Consistent with the approach we follow to setting prices in the current regulatory period, actual CPI will be substituted into the public lighting model in the annual price-setting process to determine the final charges for each regulatory year within the next regulatory period.

3.2.2 Operation, maintenance, repair and replacement charges

To establish OMR prices in the next regulatory period, we used the AER's public lighting model[31] that was used for setting prices in the current regulatory period and made adjustments to model inputs. The adjustments were necessary to recover our prudent and efficient costs for providing public lighting OMR services.

The adjustments to model inputs include:

- labour escalation factors, consistent with those proposed for standard control services
- the real pre-tax WACC, which is the same as that in our revised proposal PTRM for standard control services
- forecast CPI
- the opening public lighting regulatory asset base (**PLAB**) which has been established by applying the method used in the AER's final decision public lighting model for the current regulatory period,[32] adjusted with an additional half-year capital expenditure and depreciation for the impacts of the intervening period[33]

31 AER, *Final Decision Jemena, Public Lighting model*, May 2016.

32 AER, *Final Decision Jemena, Public Lighting model*, May 2016.

33 The intervening period represent the six months in between the current regulatory period and the next regulatory period.

- forecast volume of each type of light over the next regulatory period, due to growth and deployment of more energy-efficient lights through the bulk replacement of all Category P mercury lights and spot replacement for all unserviceable Category V lights to LED lights across our network
- changes to the labour rates and material unit costs
- the number of light repairs performed in a day was reduced to reflect what can safely and realistically be achieved by a two-person crew
- the number of pole inspections performed in a day was reduced, reflecting what can safely and realistically be achieved in a day
- Category P light failure rates were changed to reflect JEN's actual failures.

We made structural changes to the model by:

- including additional resources for replacement of dedicated poles
- adding three new energy-efficient LED light types for major road Category V lighting
- unitising the costs related to 'GIS and other' on a dollar per light basis
- modifying the ratios that apportion depreciation and return on assets of the PLAB of non-efficient light types post-2024.

3.3 Draft decision

The AER's draft decision largely accepted our proposed approach to modelling OMR prices for public lighting services, however the AER:

- amended JEN's input cost assumptions concerning operations and maintenance expenditure and LED luminaire costs
- updated the WACC, CPI and wage growth assumptions, and made minor changes to the initial proposal public lighting model.

3.3.1 Form of control

The prices for the first year of the next regulatory period and the X-factors are set out in Appendix C of the draft decision.[34] Prices for subsequent years of the regulatory control period will be escalated by CPI growth and X-factors. The control mechanism formula is set out in attachment 14 of the draft decision.

3.3.2 Modelling

The AER adjusted our initial proposal public lighting model by:

- replacing the opening prices used in the model with those prices approved for CY20
- updating a value from urban to rural in the operations and maintenance calculation
- correcting the unitisation codes used to apportion the PLAB and regulatory depreciation to different light types based on their unit costs
- updating asset life factors in the historical PLAB
- updating several formulae in the total PLAB calculation sheet (PLAB depreciation capital expenditure 2021 for HY21 and FY22)

[34] AER, *Draft Decision, Jemena Distribution Determination 2021-2026, Attachment 16, Alternative control services*, September 2020, p. 49.

- inputting actual CPI index for Dec 2020 and forecast CPI for Dec 2021 to Dec 2025, and
- updating input internal labour cost escalators.

3.3.3 LED luminaires unit costs

The AER compared the unit cost of LED luminaires proposed by JEN against those proposed by the other Victorian electricity distribution businesses. Our proposed prices compared favourably for two of the four LED luminaires. For the other two LED luminaires, the AER substituted the LED luminaire unit costs of CitiPower, Powercor and United Energy as shown in Table 3–2.

Table 3–2: LED luminaire unit costs ($2021, dollars)

LED category	Initial proposal	Draft decision	Variance (%)
Category P	$307.04	$205.00	-33%
Category V L1	$782.20	$402.00	-49%
Category V L2	$928.51	$427.00	-54%
Category V L4	$1007.30	$650.88	-35%

3.3.4 Operation and maintenance expenditure and LED luminaire costs

The AER did not accept several of our proposed operations and maintenance adjustments. The AER:

- reduced the JEN proposed labour rate increases by substituting the proposed rates of Powercor, which are the mid-point of the equivalent Victorian distribution businesses' proposed rates
- increased JEN's proposed number of repairs per day by substituting the number of assumed repairs undertaken by United Energy, on the basis that United Energy is mostly an urban distribution business like JEN and is, therefore, the most comparable of the other Victorian electricity distribution businesses.

The AER noted that there are several areas where JEN has compared well concerning model inputs and therefore have not made any adjustments. Overall, the AER considers—based on its analysis of JEN's models and consideration of stakeholder feedback—the draft decision prices will afford JEN with an opportunity to recover the efficient costs for providing its public lighting services and will assist in supporting the transition to more energy-efficient forms of lighting with associated benefits for customers.

3.4 Revised proposal

We accept the approach the AER followed to amend the public lighting model input cost assumptions concerning operation and maintenance expenditure and LED luminaire costs, except for the number of repairs that can be completed in a standard eight hour day for Category P lights.

In this revised proposal we also make further revisions to account for the most up to date information, including:

- update real pre-tax WACC and actual inflation based on the methods used in determining Standard Control Service revenue
- forecast labour escalation based on the average of AER's DAE forecast and forecasts provided by BIS that account for the impacts of the COVID-19 pandemic and the increase in superannuation guarantee
- forecast light volumes for CY19 with actual, and
- allowances on capital expenditure and operating expenditure for CY19 with actual reported expenditures in the CY19 RIN response.

We also elaborate why we cannot accept the AER's draft decision for the number of repairs that can be completed in a standard 8-hour day.

3.4.1 Number of repairs in an 8-hour day

In the draft decision the AER stated:

> *"In relation to Jemena's proposed reduction in the number of repairs per day, we note that it has reported difficulties in achieving the currently assumed repairs per day. We do not, however, accept the level of reduction in repairs per day submitted by Jemena. Instead, we have substituted the repairs per day being achieved by United Energy for the same light types and have applied these to Jemena. We consider United Energy, a largely urban distributor like Jemena, is the most comparable of the other distributors and we consider that Jemena should be able to achieve the level of repairs per day for the light types being achieved by United Energy."*[35]

United Energy's proposed 29 repairs per day for T5 lights equates to 16.6 minutes per repair (i.e. 480 minutes divided by 29 repairs. We cannot accept the AER's substituted values as it materially overstates the actual number of repairs of Category P lights that we can safely and reasonably achieve in an 8-hour day.

In our revised proposal we propose 20 repairs per day in an urban area and 16 repairs in a rural area for all Category P lights. This compares to 15 and 12 repairs per day, respectively, in our initial proposal. In arriving at our revised repair metrics, we:

- considered how the public lighting model is structured to account for the cost of repairs in urban, remote and rural areas
- compared the proposed number of repairs proposed in a day by our peers for the next regulatory period, and the AER's final decisions on these performance metric over the previous and current regulatory period
- undertook a detailed analysis of the daily activities of a public lighting crew and the specific activities involved in a light repair
- considered the public lighting code obligations we are required to comply with.

Each of the matters are discussed in detail below.

3.4.1.1 A bottom-up assessment to determine the number of repairs that can be achieved in a 8-hour day

JEN has undertaken a bottom-up build of the average time taken to repair a Category P light in an urban area. Table 3–3 shows the sequential activity steps taken by a single work crew of two persons using an elevated work platform (**EWP**) vehicle and the average task time for each activity.

Table 3–3: Public lighting repair activities in an 8-hour day

Repair activities including travel between jobs	Average time taken (minutes)
Arrive at site and set up the EWP vehicle, including parking, stabilising the vehicle and deploying minor traffic control such as laying out witches hats and signs.	3
Complete and record job safety assessment at each site. This is a mandatory JEN safety requirement for all work crews.	2
Identify and assess the fault. Complete the required work to repair the light. This includes cleaning the luminaire, testing and making sure it operates.	7.5 (between 5 and 10)

[35] AER, *Draft Decision, Jemena Distribution Determination 2021-2026, Attachment 16, Alternative control services*, September 2020, p. 40.

Repair activities including travel between jobs	Average time taken (minutes)
Dismantle job site including site clean and prepared to travel to next job.	3
Travel between jobs (including completion of paperwork on the repair work performed by other field worker).	7.5 (approx..5 to 10)
Total time to repair one light including travel time to the next job (repair time)	**23**
Other activities at the start, during and end of day by the work crew	**Average time taken (minutes)**
Receive job list, plan job route, and pre-work discussions.	7.5 (approx. 5 to 10)
Pre-start tasks – One person undertakes vehicle safety checklist (approx. 20 items) including physical checks on lights, indicators, wipers, operation of EWP boom, etc; while the other check stock in the truck and replenish as required.	17.5 (approx. 15 to 20)
Rest breaks – required under enterprise agreement and in accordance with safety requirements.	10
Additional travel time between depot and first or last job each day.	10
Arrive at depot and dispose of waste.	5
Complete required paperwork and timesheets.	10
Total time including rest breaks per day (fixed time)	**60**

None of the above tasks can be avoided by the crew and the time assigned to each of the tasks including rest breaks are reasonable. When the total time is tested against an 8-hour day, only 18[36] repairs is feasible in a day. Notwithstanding our bottom-up assessment of 18 repairs per day, we have proposed 20 repairs in an urban area in light of the average repairs outlined in the initial proposals by our peer Victorian Distribution Network Service Providers (**DNSP**s).

Based on our experience in public light maintenance and repair, the time taken to repair a Category P light is approximately the same—regardless of the light type; the repair work generally involves removing the light fitting cover, diagnosing the problem, replacing the faulty components, cleaning and testing the light for each light type.

3.4.1.2 Public lighting model is designed to calculate the cost of repairs across urban, remote and rural areas

The public lighting model used by the AER to consider OMR pricing for the Victorian DNSPs has distinct assumptions on the number of repairs per day for urban, rural and remote areas—therefore, the assumptions for urban areas proposed by all of our peers should be comparable.

We are not aware of any reason to consider that United Energy's urban area is more applicable as a substitute for JEN's urban areas compared to other distribution businesses. In our view, AusNet Services' and Powercor's urban areas are more representative of the urban areas that JEN services because they flank JEN's urban areas, and therefore, those DNSPs are likely to have urban network characteristic more like JEN. Based on this, we consider all urban areas would be comparable, not one specific area (e.g. United Energy).

3.4.1.3 Sense checking the comparative data

Powercor's assumptions on the number of repairs per day for urban, rural and remote have not changed over the previous and current regulatory periods and they have proposed to continue to apply them for the next regulatory period.

[36] Repairs per day = (Minutes per eight hour day – fixed time) / repair time

Further, the assumptions in United Energy's final decision public lighting model[37] for the current period are unrealistically high—for example, 49 to 50 repairs per day for T5 lights in an urban area. However, for the next regulatory period, United Energy has proposed the same number of Category P light repairs per day as Powercor, except for T5 lights. Given the exact alignment in the data, it would seem the commonality in ownership of these DNSPs is driving the convergence of the repairs per day assumptions rather than any efficiency assessment. For instance, Noteworthy is the United Energy's proposed rate of change in repairs per day is 40% less T5 light repairs per day in the next regulatory period.

We do not believe that there has been any efficiency tests or analysis performed on these historical assumptions. As such, given that United Energy's assumptions are unrealistic, our proposed number of repairs per day – which are based on analysis relevant to our network areas – should not be replaced by United Energy's assumptions for the number of repairs that can be achieved in a day.

In AusNet Services' regulatory proposal included 14 repairs per day in urban areas for Category P lights, regardless of the light types – which compares favourably with JEN's proposal of 15 repairs per day. Based on our assessment, Ausnet Services is a more realistic model parameter (see Table 3–4).

3.4.1.4 Average number of repairs proposed by our peers

Table 3–4 shows the proposed number of repairs that can be achieved by the Victorian DNSPs in their initial proposals for the next regulatory period. For the purposes of comparing and averaging repairs per day in urban areas, we have excluded CitiPower as it has an "urban area" that is inclusive of the Melbourne CBD and therefore, may not be representative of the urban areas in the other DNSPs.[38]

Table 3–4: Number of repairs per day

Light type	Number of repairs per day proposed in the initial proposal				
	JEN	United Energy	Powercor	AusNet	Average
MV80 - urban	15	29	29	18	22.7
MV80 - rural	12	24	24	14	18.5
T5 - urban	15	29	25	18	21.7
T5 - rural	12	24	20	14	17.5
LED18 W - urban	15	25	25	18	20.7
LED18 W - rural	12	20	20	14	16.5

Notwithstanding the concerns we have with the estimates reported by Powercor and United Energy, the average repairs that can be achieved in a day in urban areas of Melbourne ranges between 20.7 to 22.7. If this simple average approach is adopted, then the appropriate rate is 20 repairs in per day in an urban area for all Category P lights and 16 repairs in a rural area—in light of our bottom up build of 18 repairs per day (see section 3.4.1.1),

3.4.1.5 Public lighting code obligations

JEN is required to fix all public lighting faults in accordance with the public lighting code[39] which is either within 2 days of being reported for lights that qualify as GSL's[40] (opposite or adjacent to the reporting person's premise) or within 7 days of being reported for all other lights reported.

[37] AER, *Final Decision, United Energy Public lighting model*, May 2016.

[38] At the time of privatisation of the Victorian electricity industry, all the DNSPs we allocated portion of the Melbourne urban areas.

[39] ESCV, *Public Lighting Code*, Version 2, 2015.

[40] ESCV, *Public Lighting Code*, Version 2, 2015, s. 2.5.

This means that we do not have the opportunity to batch the public lighting site visits until we have a cluster of lighting faults in same vicinity to optimise the number of repairs per day. The AER should consider the code obligations in its assessment as to what JEN can safely and reasonably achieve in a day.

3.4.2 AER's assessment process

In its draft decision, the AER compared model inputs to assess what parameters should be adopted in the public lighting model.

Although this comparison is a useful starting point, it is simplistic and does not pick up important differences across DNSPs. To minimise the risk of error, the AER should further investigate such differences to sense check the substitutability of parameters before substituting them into another DNSP's model. For example, a sense check could consider:

- the reasonableness of the light repair activities and the time taken to complete each activity as set out in Table 3–3
- whether the repair of one type of Category light is so different from the other to warrant different repairs per day metric.

When benchmarking standard control services operating expenditure, the AER undertakes extensive sense checking before drawing conclusions. Although we do not advocate full benchmarking analysis be undertaken for public lighting, some sense checking should be considered. This could include:

- looking for outliers in data. Typical statistical methods for addressing outliers is to remove them
- seeking independent assessments such as those provided by Marsden Jacobs for ACS fee based and quoted services
- consider cost build ups and other methods like what we presented in section 3.4.1

We recommend the AER to consider a broader range of assessment to truly understand the efficiencies around the repairs per day model parameter to give greater confidence in the efficiency assessment.

3.4.3 Public lighting OMR charges

In Appendix C1 of this attachment, we show our indicative charges for public lighting OMR services for the next regulatory period. The charges are inclusive of real price escalators and forecast CPI. Consistent with the approach we follow to setting prices in the current regulatory period, actual CPI will be substituted into the public lighting model once the actual CPI is known to determine the final charges for each regulatory year within the next regulatory period and reflected in our annual pricing proposal.

Appendix A

Ancillary network service prices

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A1. Ancillary network service prices

Table A1–1: Indicative revised proposal fee-based ancillary network services prices FY22 - ($2021, dollars) [41]

Proposed fee-based services	Business Hours (B/H)	After Hours (A/H)	Wasted site attendance (B/H)	Wasted site attendance (A/H)
Connection services[42]				
New basic connection, single-phase (up to 100 Amps)	555.73	735.53	464.96	642.19
New basic connection, three-phase (up to 100 Amps)	684.55	864.35	464.96	642.19
Connection management services				
Temporary single-phase connection (up to 100 Amps)	555.73	735.53	464.96	642.19
Temporary three-phase connection (up to 100 Amps)	684.55	864.35	464.96	642.19
Field-based energisation	48.72	85.04	48.72	85.04
Field-based de-energisation	69.86	69.86	69.86	69.86
Temporary disconnection (requiring a service truck visit)	361.58	511.54	361.58	511.54
Reconnection (after temporary disconnection)	418.95	596.18	418.95	596.18
Upgrade of basic connection (1 to 3-phase, up to 100 Amps)	684.55	864.35	464.96	642.19
Replacement of overhead basic connection, single-phase	667.22	847.02	464.96	642.19
Replacement of overhead basic connection, three-phase (up to 100 Amps)	740.94	920.74	464.96	642.19
Reserve feeder maintenance ($/kW)	12.89	12.89	n/a	n/a
Ancillary network services				
Customer access to electricity consumption data	-	-	n/a	n/a
Security lighting (operation and maintenance)	134.53	134.53	n/a	n/a
Auxiliary metering services				
Remote special meter read	-	-	n/a	n/a
Remote energisation	-	-	n/a	n/a
Remote de-energisation	-	-	n/a	n/a
Remote meter re-configuration	49.08	49.08	n/a	n/a
Meter alteration (or relocation)	464.96	642.19	464.96	642.19
Field-based special meter reads	46.94	46.94	46.94	46.94
Meter test of types 5, 6 and AMI & smart metering installations (no charge for additional meters)	506.06	687.03	506.06	687.03
Type 7 metering ($/light)	1.42	1.42	n/a	n/a
Non-contestable unmetered metering ($/device)	16.30	16.30	n/a	n/a

Source: *JEN – 09-11M ACS Fee Based Services Model – 20201203 – Public*

41 Prices are subject to change under the annual pricing proposal process.

42 The proposed new basic connection fees are the same regardless of whether we or a third-party meter provider are responsible for metering.

Table A1–2: Revised proposal real price change for fee-based ancillary network services prices - (per cent)

Proposed real price change	FY23	FY24	FY25	FY26
Connection services				
New basic connection, single-phase (up to 100 Amps)	0.37%	0.48%	0.74%	0.97%
New basic connection, three-phase (up to 100 Amps)	0.31%	0.40%	0.62%	0.81%
Connection management services				
Temporary single-phase connection (up to 100 Amps)	0.37%	0.48%	0.74%	0.97%
Temporary three-phase connection (up to 100 Amps)	0.31%	0.40%	0.62%	0.81%
Field-based energisation	0.50%	0.65%	0.99%	1.31%
Field-based de-energisation	0.50%	0.65%	0.99%	1.31%
Temporary disconnection (requiring a service truck visit)	0.42%	0.55%	0.84%	1.10%
Reconnection (after temporary disconnection)	0.42%	0.55%	0.83%	1.10%
Upgrade of basic connection (1-phase to 3-phase, up to 100 Amps))	0.31%	0.40%	0.62%	0.81%
Replacement of overhead basic connection, single-phase (up to 100 Amps)	0.31%	0.41%	0.63%	0.83%
Replacement of overhead basic connection, three-phase (up to 100 Amps)	0.29%	0.38%	0.57%	0.76%
Reserve feeder maintenance	-	-	-	-
Ancillary network services				
Customer access to electricity consumption data	-	-	-	-
Security lighting	0.27%	0.35%	0.54%	0.71%
Auxiliary metering services				
Remote special meter read	-	-	-	-
Remote energisation	0.50%	0.65%	0.99%	1.31%
Remote de-energisation	0.50%	0.65%	0.99%	1.31%
Remote meter re-configuration	0.50%	0.65%	0.99%	1.31%
Meter alteration (or relocation)	0.42%	0.56%	0.85%	1.12%
Field-based special meter reads	0.50%	0.65%	0.99%	1.31%
Meter test of types 5, 6 and AMI smart metering installations	0.50%	0.65%	0.99%	1.31%
Type 7 metering ($/light)	0.50%	0.65%	0.99%	1.31%
Non-contestable unmetered metering ($/device)	0.50%	0.65%	0.99%	1.31%

Source: *JEN – 09-11M ACS Fee Based Services Model – 20201203 – Public*

Table A1–3: Indicative revised proposal labour rates for quoted services FY22 - ($2021, dollars) [43]

Labour category	Business hours	After hours
Administrative employee	90.75	n/a
Field worker	154.55	235.23
Technical specialist	163.61	n/a
Engineer	151.50	n/a
Senior engineer	198.11	n/a

Source: *JEN – 09-10M ACS Quoted Services Model – 20201203 – Public*

Table A1–4: Revised proposal X-factors for ancillary network services FY23 to FY26 - (per cent)

	FY23	FY24	FY25	FY26
X-factor	-0.4961%	-0.6513%	-0.9935%	-1.3075%

Source: *JEN – 09-10M ACS Quoted Services Model – 20201203 – Public*

[43] Prices are subject to change under the annual pricing proposal process.

Appendix B
Type 5 and 6 (incl. smart metering) metering charges and metering exit fees

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B1. Smart metering charges

Table B1–1: Indicative revised proposal meter charges per meter - ($Nominal, dollars) [44]

Meter category	FY22	FY23	FY24	FY25	FY26
Single-phase	56.21	57.36	58.36	59.38	60.43
Single-phase, two-element	56.21	57.36	58.36	59.38	60.43
Three-phase (direct connect)	68.81	70.22	71.45	72.70	73.98
Three-phase (current transformer (CT) connect)	76.41	77.98	79.34	80.72	82.15

Source: Revised proposal: JEN-Att 12-03 Indicative prices – 20201203 - Public

B2. Smart metering exit fees

Table B2–1: Indicative revised proposal meter exit fees per meter - ($Nominal, dollars)[45]

Meter category	FY22	FY23	FY24	FY25	FY26
All smart meter types	235.82	222.90	206.46	191.60	178.28

Source: *JEN – 09-07M ACS Metering Exit Fees Model – 20201203 – Public*

[44] Prices are subject to change under the annual pricing proposal process.

[45] Prices are subject to change under the annual pricing proposal process.

Appendix C
Public lighting prices

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C1. Public lighting prices

Table C1–1: Indicative revised proposal public lighting prices FY22 ($Nominal, dollars) [46]

Light Type	FY22 price
Mercury Vapour 80 watt	$57.43
Sodium High Pressure 150 watt	$120.92
Sodium High Pressure 250 watt	$123.74
Mercury Vapour 125 watt	$84.42
Mercury Vapour 250 watt	$118.79
Mercury Vapour 400 watt	$133.64
Sodium High Pressure 100 watt	$165.66
Sodium High Pressure 400 watt	$164.58
Metal Halide 70 watt	$147.59
Metal Halide 150 watt	$268.44
Metal Halide 250 watt	$266.05
T5 (2 x 14 W)	$61.36
T5 (2 x 24 W)	$69.11
LED 18W (incl. other standard Category P LED variants)	$28.13
Compact Fluoro 32W	$58.18
Compact Fluoro 42W	$58.18
L1 - LED 70W	$53.26
L2 - LED 118W, 155W, 162W	$53.80
L4 - LED 275W	$58.62

Sources: *JEN – 09-09M ACS Public lighting model – 20201203 – Public*

Table C1–2: Revised proposal public lighting X-factors

Light Type	FY23	FY24	FY25	FY26
Mercury Vapour 80 watt	3.4342%	3.4656%	-1.4314%	0.2603%
Sodium High Pressure 150 watt	1.7934%	1.5905%	-1.1062%	-0.3257%
Sodium High Pressure 250 watt	1.9031%	2.3189%	-1.0885%	-0.3023%
Mercury Vapour 125 watt	3.4342%	3.4656%	-1.4314%	0.2603%
Mercury Vapour 250 watt	1.9031%	2.3189%	-1.0885%	-0.3023%
Mercury Vapour 400 watt	1.9031%	2.3189%	-1.0885%	-0.3023%
Sodium High Pressure 100 watt	1.7934%	1.5905%	-1.1062%	-0.3257%
Sodium High Pressure 400 watt	1.9031%	2.3189%	-1.0885%	-0.3023%
Metal Halide 70 watt	3.4342%	3.4656%	-1.4314%	0.2603%
Metal Halide 150 watt	1.7934%	1.5905%	-1.1062%	-0.3257%

[46] Prices are subject to change under the annual pricing proposal process.

Light Type	FY23	FY24	FY25	FY26
Metal Halide 250 watt	1.9031%	2.3189%	-1.0885%	-0.3023%
T5 (2 x 14 W)	-2.7453%	-2.4678%	-2.3769%	-2.2673%
T5 (2 x 24 W)	-2.7453%	-2.4678%	-2.3769%	-2.2673%
LED 18W (incl. other standard Category P LED variants)	-4.6348%	-4.0595%	-3.7639%	-3.4955%
Compact Fluoro 32W	-2.7453%	-2.4678%	-2.3769%	-2.2673%
Compact Fluoro 42W	-2.7453%	-2.4678%	-2.3769%	-2.2673%
L1 - LED 70W	-3.9018%	-3.3571%	-3.0570%	-2.6914%
L2 - LED 118W, 155W, 162W	-4.0364%	-3.4593%	-3.1349%	-2.7402%
L4 - LED 275W	0.4436%	-4.5211%	-3.9566%	-3.2869%

Source: *JEN – 09-09M ACS Public lighting model – 20201203 – Public*

Table C1–3: Indicative revised proposal public lighting OMR charges for the next regulatory period ($Nominal, dollars)[47]

Light Type	FY22	FY23	FY24	FY25	FY26
Mercury Vapour 80 watt	$57.43	$56.77	$56.10	$58.26	$59.49
Sodium High Pressure 150 watt	$120.92	$121.57	$122.48	$126.77	$130.20
Sodium High Pressure 250 watt	$123.74	$124.27	$124.27	$128.61	$132.06
Mercury Vapour 125 watt	$84.42	$83.45	$82.47	$85.64	$87.45
Mercury Vapour 250 watt	$118.79	$119.30	$119.30	$123.46	$126.78
Mercury Vapour 400 watt	$133.64	$134.21	$134.21	$138.89	$142.62
Sodium High Pressure 100 watt	$165.66	$166.55	$167.79	$173.68	$178.38
Sodium High Pressure 400 watt	$164.58	$165.28	$165.28	$171.05	$175.64
Metal Halide 70 watt	$147.59	$145.90	$144.19	$149.73	$152.88
Metal Halide 150 watt	$268.44	$269.88	$271.90	$281.43	$289.05
Metal Halide 250 watt	$266.05	$267.18	$267.18	$276.50	$283.92
T5 (2 x 14 W)	$61.36	$64.55	$67.71	$70.96	$74.30
T5 (2 x 24 W)	$69.11	$72.70	$76.26	$79.92	$83.68
LED 18W (incl. other standard Category P LED variants)	$28.13	$30.13	$32.10	$34.10	$36.13
Compact Fluoro 32W	$58.18	$61.20	$64.20	$67.29	$70.45
Compact Fluoro 42W	$58.18	$61.20	$64.20	$67.29	$70.45
L1 - LED 70W	$53.26	$56.65	$59.94	$63.24	$66.48
L2 - LED 118W, 155W, 162W	$53.80	$57.30	$60.69	$64.07	$67.39
L4 - LED 275W	$58.62	$59.75	$63.93	$68.04	$71.95

Source: *JEN – 09-09M ACS Public lighting model – 20201203 – Public*

[47] Prices are subject to change under the annual pricing proposal process.