DRAFT DECISION
Endeavour Energy
Distribution determination

2019 to 2024

Attachment 15 – Alternative control services

November 2018

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's draft decision on the distribution determination that will apply to Endeavour Energy for the 2019–24 regulatory control period. It should be read with all other parts of the draft decision.

The draft decision includes the following attachments:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency benefit sharing scheme

Attachment 9 – Capital expenditure sharing scheme

Attachment 10 – Service target performance incentive scheme

Attachment 11 – Demand management incentive scheme

Attachment 12 – Classification of services

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Attachment 18 – Tariff structure statement

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Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
capex	capital expenditure
CCP/CCP10	Consumer Challenge Panel (sub-panel 10)
CPI	consumer price index
distributor	distribution network service provider
EBSS	efficiency benefit sharing scheme
NEL	national electricity law
NEM	national electricity market
NEO	national electricity objective
NER	national electricity rules
NSP	network service provider
opex	operating expenditure
PPI	partial performance indicators
PTRM	post-tax revenue model
RAB	regulatory asset base
RFM	roll forward model
RIN	regulatory information notice
WACC	weighted average cost of capital

15 Alternative control services

This attachment sets out the Australian Energy Regulator's draft decision on Endeavour Energy's (Endeavour) alternative control services: ancillary network services, metering and public lighting.

Alternative control services are customer specific or customer requested services and so the full cost of the service is attributed to that particular customer. We set service specific prices to provide a reasonable opportunity to enable the distributor to recover the efficient cost of each service from customers using that service. This is in contrast to standard control services where costs are spread across the general network customer base.

Alternative control services represent around 7.8 per cent of Endeavour's total regulated revenue.[1]

15.1 Draft decision

Our draft decision is to classify ancillary network services, type 5 and 6 metering services and public lighting services as alternative control services.

Our draft decision is to not accept some elements of Endeavour's proposed fees for ancillary network services, public lighting and metering where the proposed fees exceed the efficient cost of providing the services.

The detail of our draft decision is set out in the following sections:

- Section 15.4 - Ancillary Network Services
- Section 15.5 - Public Lighting
- Section 15.6 - Metering.

15.2 Endeavour Energy's proposal

We received separate proposals from Endeavour for ancillary network services, public lighting and metering.

Endeavour adopted our service classification and control mechanisms for alternative control services as set out in our Final Framework and Approach.[2]

For ancillary network services Endeavour proposed a distinction between fee-based and quoted services consistent with its approach in the current regulatory period. Endeavour indicated it had reviewed existing ancillary network service fees and determined that the underpinning assumptions had not changed. Given this,

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1 Estimate drawn from Endeavour's regulatory proposal.

2 AER Framework and Approach Paper - Ausgrid, Endeavour Energy and Essential Energy - July 2017 pp. 10-11, 56-7.

Endeavour developed its proposal using the same time and cost assumptions applicable to the 2014–19 control period, then applied X-factors to reflect forecast increases in labour cost.[3]

For security lighting (nightwatch lighting), Endeavour proposed to charge a one-off installation charge and a monthly rental charge to cover the cost of operating, maintaining and replacing the asset, as well as for electricity usage.[4]

For public lighting, Endeavour used a top down costing approach to calculate charges. Endeavour proposed:

- reductions in public lighting charges in the first year of the 2019–24 control period followed by CPI escalation for the remaining years
- differential pricing for LED lights—maintenance charges for LED lights would be 15 per cent lower than the charges for traditional lighting technology in anticipation of councils taking up more LED for potential pricing benefits and energy cost savings
- to maintain the current public lighting tariff structure with 5 tariff classes.

Endeavour also noted that its public lighting proposal is based on the current minimum standards and guaranteed service performance levels prescribed by the NSW Public Lighting Code. Endeavour indicated that any changes to the Code may influence its proposed public lighting charges.

For metering, Endeavour proposed $0.5 million ($2018–19) for meter testing equipment. It also proposed that, while its meter operating costs will decrease during the 2019–24 regulatory control period, they will increase on a per customer basis due to diseconomies of scale.[5]

15.3 Assessment approach

The National Electricity Rules (NER) are less prescriptive and afford more discretion for determining the control mechanism for alternative control services than for standard control services. For example, there is no requirement to establish a full building block model to set the revenue to be earned from the services as there is for standard control services. The control mechanism may be either a control on the price of the service, or the revenue to be earned from the service, or both. As a general principle we attempt to regulate alternative control services in a lighter handed manner than standard control services.

Our distribution determination must state the basis of the control mechanism to apply to alternative control services.[6] Our decision on the form of control mechanism for

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3 Endeavour Energy, Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public, p. 207.
4 Endeavour Energy, Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public, p. 208.
5 Endeavour Energy, *Regulatory Proposal 1 July 2019 to 30 June 2024*, p. 200-201.
6 NER, cl. 6.2.6(b).

alternative control services must be in accordance with our Framework and Approach.[7] The formulae that give effect to the form of control must be as set out in the Framework and Approach unless we consider that unforeseen circumstances justify a departure.

In deciding on a control mechanism for alternative control services, we must have regard to potential competition in the relevant market, administrative costs, applicable regulatory arrangements, consistency between regulatory arrangements, and any other relevant factor.[8] The control mechanism for alternative control services may use elements of the building block model for standard control services but there is no requirement to apply the building block model exactly as set out in Part C of the NER.

The different regulatory requirements for alternative control services compared to standard control services recognise their different characteristics. Standard control services are central to electricity supply and are relied on by all customers. In contrast, alternative control services are customer specific. Accordingly our approach to assessing alternative control services is different to that of standard control services.

For ancillary network services we undertook a bottom up cost assessment. Labour costs are the major input in the cost build-up of prices for ancillary network services. Therefore, our assessment focusses on comparing Endeavour's proposed labour rates against maximum total labour rates which we consider efficient.

Where Endeavour's proposed labour rates exceed our maximum efficient labour rates we apply our maximum efficient labour rates to determine prices. Section 15.4.2 discusses our maximum total labour rates.

We also assess the proposed times taken to perform the service as well as the escalators and allocators applied by Endeavour as these are also cost inputs which determine the final price for some services. Our assessment of these inputs is informed by benchmarking against inputs applied by other distributors and based on the recommendations of our consultant Marsden Jacob Associates (Marsden Jacob).

For the quoted services component of ancillary network services, we compared Endeavour's proposed labour rates (inclusive of overheads) to the corresponding maximum labour rate recommended by our consultant.

For public lighting, we assessed Endeavour's proposal by analysing its public lighting model, studying historical data, and by benchmarking proposed costs against other NEM distributors and against independent data and information. In particular we assessed proposed input assumptions, overheads and revenue projections used to derive charges. We also relied on recommendations of Marsden Jacob.

For metering, we maintain our final Framework and Approach position to apply price caps for individual public lighting services as the form of control.

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7 NER, cl. 6.12.1(12).

8 NER, cl. 6.2.5(d).

We assessed Endeavour's metering proposal by analysing the metering Post-tax Revenue Model, studying historic data and benchmarking costs against other NEM distributors. In particular we assessed the opex costs on a category basis and how these costs have trended over time. We have also relied on the recommendations of Marsden Jacob for labour rates when assessing metering.

15.4 Ancillary network services

Ancillary network services share the common characteristic of being services provided to individual customers on an 'as needs' basis (e.g. relocating poles or temporary supply at a customer's request). Ancillary network services involve work on, or in relation to, parts of Endeavour's distribution network. Therefore, similar to common distribution services, only Endeavour may perform these services in its distribution area.

For the purposes of this draft decision we refer to the service groups 'fee based services' and 'quoted services' collectively as a single group called 'ancillary network services'.

Prices for fee based services are predetermined based on the cost of providing the service and the average time taken to perform it. These services tend to be homogenous in nature and scope and can be costed in advance of supply with reasonable certainty.

By comparison, prices for quoted services are based on quantities of labour and materials with the quantities dependent on a particular task. Prices for quoted services are determined at the time of a customer's enquiry and reflect the individual requirements of the customer and service requested.

15.4.1 Ancillary network services—Draft decision

Service classification - Ancillary network services

Our draft decision is to classify ancillary network services as alternative control services. This is consistent with our Final Framework and Approach and Endeavour's proposed classification of ancillary network services.[9]

Form of control - Ancillary network services

Our draft decision is to apply a price cap form of control for fee based and quoted services. This is consistent with our Final Framework and Approach and Endeavour's proposed form of control for fee based services.[10] Under a price cap form of control, we set a schedule of prices for the first year of the regulatory period, 2019–20. For

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[9] AER Framework and Approach Paper - Ausgrid, Endeavour Energy and Essential Energy - July 2017 pp. 11, 33. Endeavour Energy, Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public, p. 192.

[10] AER Framework and Approach Paper - Ausgrid, Endeavour Energy and Essential Energy - July 2017 pp. 54-8. Endeavour Energy, Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public, p. 208.

2020–21 and subsequent years the prices for fee based services are determined by adjusting the previous year's prices by the formula set out in Attachment 13 (Control mechanisms).

Consistent with previous decisions, we have also applied a labour escalator as the X-Factor. Our proposed X-Factors in this draft decision are set out in Table 15-9. This is different to Endeavour's proposed model which uses the X-factor as a smoothing factor, as well as separately applying a labour escalator.

Fee based services - Ancillary network services

Our draft decision is to accept Endeavour's proposed ancillary network fee based services, but to not accept some proposed charges associated with these services. We consider that not all of Endeavour's proposed labour rates are efficient, and have imposed our own maximum total labour rates to generate efficient charges. A discussion of the reasons for our decision is at section 15.4.2. It is open to Endeavour to explain further why we should consider its proposed fees as efficient.

Changes to fee based services

Endeavour proposed a number of services that are 'new' for the 2019–24 period, either due to new obligations or disaggregation of existing services. We note that in the proposal as submitted it was not clear which services were new. However Endeavour subsequently provided a list in response to our request for information. We approve the introduction of these services which are listed in Table 15-6.

Quoted services - Ancillary network services

Our draft decision for Endeavour's hourly labour rates for quoted services is set out in Table 15-7. These hourly labour rates are maximum rates (which include on-costs and overheads) that Endeavour should apply for the calculation of charges for ancillary network services offered on a quotation basis.

As a consequence of applying our maximum hourly rates to our calculation of Endeavour's implied total labour rates for 2019–20 (which were agreed to by Endeavour[11]), we do not accept most of its proposed labour rates.

[11] Endeavour Energy, Response to information request #030 ACS - Fee and Quoted Services Pricing Model changes and labour rates; security lighting - 20180822 - PUBLIC, August 2018.

Table 15-1 AER draft decision - quoted service hourly rates (incl. on costs and overheads, $2019–20)

Endeavour labour category and description		Endeavour's proposed implied hourly rate (base plus on-costs plus overheads)	AER labour category[1]	AER draft decision - maximum total hourly rate (base plus on-costs plus overheads)
1	Admin	$103.90	Admin	$103.90
2	Technical	$166.60	Technical Specialist	$157.11
3	Engineer	$207.10	Engineer	$196.39
4	Field Worker	$156.09	Field Worker	$151.41
5	Senior Engineer	$246.11	Senior Engineer	$216.02
6	Traffic Controllers & Supervisors - External Contractors	$90.56	N/A	$90.56
7	Operations Manager	$197.70	Engineer	$196.39
8	Engineering Officer / Project Manager	$191.71	Engineer	$191.71
9	EFM	$127.73	Field Worker	$127.73
10	All staff involved in disconnections / reconnections (Meter Box)	$193.29	Field Worker	$151.41
11	All staff involved in disconnections / reconnections (Site Visit)	$64.18	N/A	$64.18
12	All staff involved in disconnections / reconnections (Meter Box)	$72.48	N/A	$72.48
13	R4 - Field Worker	$166.06	Field Worker	$151.41
14	R1 - Admin	$111.09	Admin	$104.74
15	R2 - Technical Specialist	$178.14	Technical Specialist	$157.11
16	R3 - Engineer	$221.43	Engineer	$196.39
17	R4 - Field Worker	$166.90	Field Worker	$151.41
18	Blended (69% R2 Tech & 31% R4 Field Worker)	$184.23	Blended 69% Technical Specialist and 31% Field Worker	$155.34

Source: Endeavour Energy, *Fee and Quoted Services Pricing Model*; Endeavour Energy, Response to information request #030 ACS - Fee and Quoted Services Pricing Model changes and labour rates; security lighting - 20180822 - PUBLIC, August 2018; AER analysis.

[1] AER labour categories are based on Marsden Jacob recommendations.

Fee-based services - Security Lights

Endeavour proposed a monthly charge based on the amount of illumination requested by the customer. This charge covers both the capital and non-capital components. Endeavour has also proposed two sets of pricing and models:

- Short-term model - for contracts with a minimum term of 12 months.[12] These short-term contracts have installation costs which differ depending on the amount of illumination requested, and which are much higher than those in the long-term model. This model is designed to recover the capital component in one year.
- Long-term model - for contracts with a minimum term of 24 months.[13] These long-term contracts have an installation cost that does not differ with the amount of illumination requested. The model is designed to recover the capital component in five years, which Endeavour has advised is the mean number of years for a Nightwatch customer.

Our draft decision is to accept the proposed charges for security lighting (both monthly charges and installation charges) for both the short-term and long-term models.

We did not update inputs (WACC, labour escalation and CPI) in Endeavour's model as the pricing impact was marginal and would cause the monthly charges to diverge between the two models which would be less understandable for customers (noting Endeavour's desire to maintain a simple pricing model).

New ancillary network services services

We consider that if new services arise in the period and are classified as Alternative Control Services based on Attachment 12 (Classification of services), then we consider that they should be priced as a quoted service until the next regulatory period. This price should be disclosed through the Annual Pricing regulatory process.

15.4.2 Ancillary network services—Reasons for draft decision

Fee based and quoted services

For ancillary network services we consider it important to review the key inputs in determining the price for the service:

- underlying labour rates
- time taken to perform the service
- any material and vehicle costs associated with providing the service
- overheads.

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[12] Endeavour Energy, *Response to information request #030 ACS - Fee and Quoted Services Pricing Model changes and labour rates; security lighting - 20180822 - PUBLIC*, August 2018.

[13] Endeavour Energy, *Response to information request #030 ACS - Fee and Quoted Services Pricing Model changes and labour rates; security lighting - 20180822 - PUBLIC*, August 2018.

In considering the above inputs we had regard to maximum efficient benchmarks developed by our consultant Marsden Jacob.

By inputting the maximum efficient benchmarks for labour rates, vehicle costs and times taken to perform services, as developed by Marsden Jacob, we were able to assess Endeavour's proposed charges for fee based services against a maximum efficient charge.

Figure 15-1 Summary of Marsden Jacob's report to the AER - Review of Alternative Control Services

We engaged Marsden Jacob to provide advice in relation to estimates of reasonable maximum total labour rates for the distributors currently undergoing resets as well as benchmarking of certain fee-based services. Marsden Jacob also provided advice on public lighting and metering input costs.

Marsden Jacob found that although each of the distributors reviewed used different category names and descriptions, the types of labour used to deliver ancillary network services broadly fell into the following five categories:

- administration
- technical services
- engineers
- field workers and
- senior engineers.[1]

Using these categories Marsden Jacob developed benchmark labour rates based on *Hays 2017 Energy sector and office support salary data* against which the efficiency of the proposed labour rates could be assessed.

In assessing the reasonableness of proposed labour rates, Marsden Jacob 'normalised' the rates provided by each business and separated them into 'raw' labour rates, on-costs and overheads.[2]

1. Raw labour costs – based on the Hays salary data and the figures used included a 8.5 per cent escalator.[3]
2. On-costs – to cover both basic leave entitlements and standard on-costs.[4]
3. Overheads – to cover all additional costs. Overall Marsden Jacob recommended a maximum overhead rate of 61 per cent Marsden Jacob also accepted the inclusion of an explicit profit margin, however where these are identified this allocation was benchmarked within the overall overhead allowance.[5]

Based on its study, Marsden Jacob recommended the maximum reasonable benchmark labour rates as set out below. Marsden Jacob recommended that we apply these maximum rates to any services it did not benchmark, to arrive at a maximum rate.

Table 16-2 Maximum total hourly rates (base plus on-costs plus overheads), $2018–19

	Ausgrid	Endeavour	Essential	Evoenergy[1]	TasNetworks[2]	Power and Water
Admin	$102.26	$102.26	$102.26	$108.37	$90.36	$89.94
Technical specialist	$153.39	$153.39	$153.39	$153.00	$144.56	$179.87
Engineer	$191.74	$191.74	$191.74	$191.25	$168.65	$167.88
Field Worker[3]	$147.83	$147.83	$147.83	$147.50	$140.45	$169.89
Senior Engineer	$210.91	$210.91	$210.91	$210.37	$198.75	$203.86

Source: Marsden Jacob Associates, Review of Alternative Control Services - Advice to Australian Energy Regulator - PUBLIC version, September 2018, Tables 5 and 7, pp. 8, 10.

Notes: [1] For Evoenergy, Marsden Jacob applied Sydney rates for all labour categories except for Administration as Hays only reports Administration rates for Canberra.

[2] For TasNetworks, Marsden Jacob used the lowest rate for Sydney, Canberra and Darwin for Administration and lower of Sydney and Darwin for other staff as there are no Hays figures for Tasmania. Marsden Jacob has applied the lowest rate as Tasmania has the lowest Average Weekly Earnings rates of any capital city in Australia.

[3] Field worker rate includes an allowance of $20 for a vehicle as an additional overhead.

The maximum hourly rates include the highest of the Hays salary rates for each labour category. Marsden Jacob noted that while these are reasonable maximum rates, more efficient rates may be gained by reference to a different point in the Hays salary bands. For our next distribution determination for these distributors, Marsden Jacob recommended the AER consider whether it is appropriate to reduce the maximum rates to reflect efficiency frontier benchmarks rather than the highest of the Hays rates for each labour category.[6] We note Marsden Jacob's recommendation in the context of future determinations. For the purposes of this draft decision we consider the maximum reasonable rates provided by Marsden Jacob should be considered efficient for our purposes.

References:

1. Marsden Jacob Associates, Review of Alternative Control Services - Advice to Australian Energy Regulator - PUBLIC version, September 2018, p. 3.
2. Ibid., p.3.
3. Ibid., p.4.
4. Ibid., pp.5-6.
5. Ibid., pp.7-8.
6. Ibid., p. 8.

Regulatory treatment of overheads and cost allocation

In its discussion of maximum overhead rates, Marsden Jacob noted that capping the overhead rate may have unintended consequences for the broader cost allocation methodology.[14]

We reviewed the objectives of our Cost Allocation Guideline.[15] A distributor's cost allocation method sets out the principles and policies for attributing costs to, or allocating costs between, the categories of distribution services a distributor provides. Hence, in approving a distributor's cost allocation method we approve the methodology it uses to allocate costs. This does not equate to approving the costs.

The approval of actual costs is subject to applicable requirements set out in the NER. Proper application of the cost allocation method does not indicate whether the distributor's expenditure, including overheads, is at efficient levels or otherwise reflects the requirements of the NER, having regard to the revenue and pricing principles and the national electricity objective. By extension, proper application of the cost allocation method does not indicate whether the resulting overhead rates represent efficient levels.

Fee based and quoted services

To calculate charges for fee based services Endeavour used a cost build up approach, calculating charges by multiplying the total labour rates by the time taken to perform the service for each labour rate and adding materials if required.

Endeavour reviewed the assumptions underlying the fees it currently charges customers to ascertain whether any had changed,[16] but concluded adjustments were not required. It therefore proposed prices using the same price and cost assumptions that applied in 2014–19, and adjusted these to reflect forecast increases in labour costs.[17]

In considering Endeavour's proposed prices, we reviewed Endeavour's modelling and determined that there were a number of changes that were required. These were made with Endeavour's agreement, including:

- ensuring all labour rates were inflated by overheads rather than overheads being applied separately to several labour rates
- corrections to labour rate 13 and corresponding increases to labour times for services that rely upon it.[18]

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14 Marsden Jacob Associates, *Review of Alternative Control Services - Advice to Australian Energy Regulator - PUBLIC version*, September 2018, p.8.

15 AER, *Cost Allocation Guideline (Distribution)*, 2008.

16 Endeavour Energy, *Regulatory Proposal 1 July 2019 to 30 June 2024*, p. 207.

17 Endeavour Energy, *Regulatory Proposal 1 July 2019 to 30 June 2024*, p. 207.

18 Endeavour Energy, *Response to information request #030 ACS - Fee and Quoted Services Pricing Model changes and labour rates; security lighting - 20180822 - PUBLIC*, August 2018

The model Endeavour proposed for its fee-based services included labour rates that did not incorporate previously approved X-Factors and its proposed 2019–20 X-factor. Following the modelling changes outlined above, we applied the relevant X-factors to infer the 2019–20 labour rates that Endeavour was applying in building up its proposed prices. Endeavour subsequently agreed with these inferred rates.

Once we had inferred Endeavour's proposed 2019–20 labour rates, we could compare them against the maximum total labour rates recommended by Marsden Jacob. This leads to us not accepting all of Endeavour's proposed prices for fee-based ancillary network services or all proposed total labour rates (raw labour plus on-costs plus overheads) for quoted service ancillary network services (which are in the same model as fee-based services) and generating new charges by inputting our maximum labour rates into Endeavour's model (where relevant).

Consistent with Marsden Jacob's benchmarking, we also reduced labour times for certain services where Marsden Jacob recommended that these labour times were not efficient. These services are:

- Supply of conveyancing information - Per Desk Inquiry
- Disconnections (Meter Box) - Includes Reconnection.[19]

While Endeavour did escalate previously approved AER labour rates in its proposal, these are different to Marsden Jacob's recommendations as Marsden Jacob generated new maximum labour rates for the 2019–24 regulatory control period rather than relying on escalating previously approved rates.

Fee-based services - Security Lights

We compared the security lighting proposals submitted by Ausgrid and Endeavour.[20] While the DNSP proposed models differed substantially in respect of the capital recovery periods, our analysis of capital costs for the comparable service between the three jurisdictions showed a similar price.

A comparison of the monthly charges between Ausgrid and Endeavour, once capital expenditure is paid out or removed, shows that the charges are broadly consistent.

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[19] Marsden Jacob Associates, *Review of Alternative Control Services - Advice to Australian Energy Regulator - PUBLIC version*, September 2018, p. 13.

[20] Essential Energy expects to earn almost negligible revenue from the provision of these services so a comparison to their inputs may be of limited value.

Table 15-3 Comparison of proposed monthly charges for security lighting, excluding capital expenditure

Light size	Ausgrid		Endeavour	
	Installation cost	Proposed monthly charge (post 2 years)	Installation cost[1]	Proposed monthly charge (maintenance component only)
250W	$400	$46.56	$300	$50.79
400W	$400	$60.24	$300	$61.71
1000W	$400	$118.93	$300	$109.43

Source: Ausgrid, *Response to information request #040 - ACS - Security Lighting, Engineering Manager, Metering - 20180816 - PUBLIC,* August 2018; Endeavour, *Night Watch Model (Long Term) - Public;* AER Analysis.

[1] Endeavour installation costs are taken from its long term model as we consider they are more comparable as they are for contracts of a minimum of 24 months. All charges are excluding GST.

The most significant difference between Ausgrid and Endeavour is in how they are recovering their capital expenditure. Ausgrid proposed to recover over two years whereas Endeavour proposed one year for short-term customers (and charging a significant installation charge) or five years for long-term customers (which have a minimum contract term of two years). Endeavour's long-term recovery period is based on the average number of years for this kind of customer.[21] Endeavour's installation charges also differ significantly between its two models with the installation charges for the short-term model being much higher to allow it to recover its capital costs in one year, while maintaining the same monthly charge as the long-term model.

Endeavour's proposed charges also do not reduce when the capital cost is recovered, but as Endeavour submitted, they also bear the risk that contracts will not run long enough to recover the full capital cost.[22] Endeavour also submitted that its pricing was designed to be as simple as possible to avoid deterring potential customers.

While these services are not contestable, strictly speaking, both Ausgrid and Endeavour submitted they have no obligation to provide these services, nor are customers obliged to acquire them.[23] We also note there may be substitute services available to customers and Endeavour submitted that this service is highly price sensitive and already subject to competitive pressures.[24] Endeavour's customers also

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21 Endeavour Energy, *Response to information request #030 ACS - Fee and Quoted Services Pricing Model changes and labour rates; security lighting - 20180822 - PUBLIC*, August 2018

22 Endeavour Energy, *Response to information request #034 - ACS - Security lighting capital recovery - 20180905 - PUBLIC*, September 2018.

23 Ausgrid, *Ausgrid's Regulatory Proposal - Attachment 8.05 - Ausgrid's ancillary network services*, April 2018, p. 10. Endeavour Energy, *Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public*, p.208.

24 Endeavour Energy, *Response to information request #034 - ACS - Security lighting capital recovery - 20180905 - PUBLIC*, September 2018.

have some discretion in what charges they face through their choice of either a short-term or long-term contract.

On the above basis we accept Endeavour's proposed monthly charges and installation charges (see Table 15-8). As per other fee based services, these prices will be subject to the form of control outlined in Attachment 13 (Control mechanisms).

15.5 Public Lighting Services

Public lighting services include the design, financing, procurement and construction of public lighting installations, as well as their on-going maintenance and operation. Endeavour has more than 200,000 public lights servicing 29 public lighting customers including 23 local councils, as well as community groups and government associations.

We have maintained public lighting as an alternative control service because a defined group of customers—local councils and road authorities—purchase these services.

Public lighting charges are composed of pre 2009 and post 2009 capital charges and operational maintenance charges. In terms of capital charges, the pre 2009 asset base was developed using a building block approach. These are depreciated in accordance with the building block model. This model rolls forward the regulatory asset base (RAB) with allowance for depreciation, indexation and assets written off. It calculates the return of capital for each public lighting customer as well as the residual values of components that are replaced before the end of their economic life.

Capital charges are set according to when the asset was either installed by the distribution network service provider, or gifted to them, and the type of asset (pole, luminaire, bracket or outreach). Capital charges for post 30 June 2009 assets are determined using an annuity capital charge approach. In terms of maintenance costs, parameters such as asset failures rates, spot and bulk maintenance cycles, labour rates and traffic controller assumptions influence the operational charges for public lighting services

15.5.1 Public lighting—Draft decision

Our draft decision is to accept the structure of Endeavour's proposed public lighting charges. However, we do not accept Endeavour's proposed charges with respect to WACC, labour escalators and the 12 year asset life assumption for LEDs.

Form of control

We maintain our final Framework and Approach position to apply price caps for individual public lighting services as the form of control. This means a schedule of prices is set for the first year. For the following years the previous year’s prices are adjusted by an X factor which in this case is CPI. The control mechanism formula is set out in Attachment 13 (Control mechanisms) of this draft decision.

15.5.2 Public lighting—Reasons for draft decision

Our reasoning with regard to WACC and labour escalators are set out in relevant attachments of this draft decision. Below, we discuss Endeavour's asset life assumptions. We also comment below on the rate of Endeavour's uptake of LED lights and the transparency of its public lighting model in the context of stakeholder submissions.

LED asset lives

With its public lighting proposal for the 2014–19 control period, Endeavour proposed an LED asset life of 12 years. In our determination for the 2014–19 control period we accepted this approach. At the time we noted there was, then, insufficient information available on the expected life of LEDs to adopt an alternative approach.

While Endeavour again proposed 12 years for LED asset life in its 2019–24 public lighting proposal, we now consider sufficient information is available to adopt a longer asset life. An LED asset life of 20 years has been adopted by a range of other distributors. It is also the asset life recommended by LED manufacturers. Further, WSROC submitted that 20 years rather than 12 is now the appropriate asset life assumption for LEDs.[25]

In light of the above, our draft decision is to adopt an LED asset life of 20 years. This has the effect of reducing Endeavour's capital charges for LED lights on an average by 25%. This is because it will recover the capital cost more slowly than under the 12 year asset life it proposed. Endeavour has opportunity to submit additional information in support of shorter LED asset lives in the context of its revised regulatory proposal. Table 15-4 shows the comparison and percentage reduction for LED lights under Tariff class 3.

[25] WSROC submission, section 5.4, p. 14 of 15.

Table 15-4 Comparison of Tariff Class 3 public lighting charges for LED lights, AER draft decision ($2019–20)

Asset Class Name	Endeavour proposed prices[26]	AER draft decision	Percentage Reduction
17W LED Cat P Luminaire	92.46	69.85	24.4%
18W LED P4 Gerard	92.46	69.85	24.4%
25W LED P4 Gerard	92.46	69.85	24.4%
33W LED	101.40	75.29	25.7%
42W LED	96.94	72.58	25.0%
82W LED Gerard V5 Cat Luminaire	128.09	91.54	28.4%
100W LED Gerard V4 Cat Luminaire	128.09	91.54	28.4%
198W LED Gerard V2/V3 Cat Luminaire	142.40	100.26	29.5%

LED rollout

Endeavour did not include in its public lighting a forecast of its LED rollout during the 2019–24 control period. We note that Endeavour estimates it will have approximately 18 per cent LED penetration on its network by the end of 2018.[27] While this is a good position compared to other NSW distributors[28], without future projections the momentum of LED rollouts in the upcoming control period is unclear. In response to our queries on this issue Endeavour submitted that LED uptake rates are subject to choices by local councils and therefore cannot be reliably forecast.

We consider LEDs provide material benefits in the form of longer asset lives, lesser maintenance requirements and lower energy bills. Customers may face higher up front capital costs for LEDs but the longer term benefits would support their adoption in the short to medium term.

In favour of LED uptake is Endeavour's proposal to introduce differential pricing for LED technology. This will incentivise councils to agree to installation of LEDs. However, in deciding whether to adopt LEDs local councils will need to factor in the residual cost of existing luminaires. Endeavour customers may face considerable residual capital values while making decisions on LED uptake.

In the context of looming barriers to sourcing mercury vapour luminaires due to the Minamata Convention, we would consider LEDs as suitable replacements. Adoption of older technologies, such as high pressure sodium vapour luminaires, as substitutes for

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[26] These rates are related to Tariff class 3.

[27] Information request #027 - Volumes and Financials - August 2018

[28] Ausgrid projections for current LED penetration (14.49% - based on public lighting model) and Essential's projections (9.44% based on asset management plan) submitted with their proposal.

mercury lights may support short term capital cost savings but would defer realisation of operating cost savings associated with LEDs.[29] Indeed, NSW Roads and Maritime Services submitted that LED lighting is a lower cost option compared to legacy lighting technologies.

We recommend Endeavour work with public lighting customers to develop a mutually beneficial strategy for replacement of mercury lights, for main roads in particular, but also more generally.

Transparency in Endeavour's public lighting proposal

Submissions on Endeavour's public lighting proposal commented on the difficulty stakeholders had in understanding it. Western Sydney Region of Councils (WSROC)[30], which represents 8 councils in Endeavour's service area, submitted that WSROC could not comment on proposed public lighting charges due to data inaccessibility. WSROC added that a transparent and cost reflective model should be provided so appropriate comments may be made.

Hawkesbury City Council expressed similar views[31], seeking from Endeavour a transparent public lighting model.

While sensitive to stakeholder views that Endeavour's public lighting proposal could have been more explicit and transparent, we note Endeavour may claim confidentiality over regulatory proposal materials where it considers necessary. Subsequent to submitting its proposal Endeavour made its public lighting model available to stakeholders on request. We added a message to that effect to the AER web page for Endeavour's regulatory determination.

Notwithstanding the above, we would agree with stakeholders that Endeavour's public lighting proposal lacked a degree of transparency, even where access to the model was granted. Endeavour's top down modelling approach did not separately identify a number of inputs which we consider to be standard elements for our assessment and for stakeholder comment. These include asset failure rates, input assumptions, public lighting design costs, labour rates, overhead allocations, lamp volumes and expected revenues. We requested from Endeavour a number of these data elements to inform our assessment, but it would be preferable to allow stakeholders to see these and respond to them in the context of Endeavour's publicly available proposal.

We consider a more transparent model with clearly defined assumptions, key inputs and costing formulae could help foster customer confidence in the derivation of proposed public lighting charges.

Our draft decision public lighting charges can be found in Table 15-10.

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29 Attachment 14.07 Public lighting Management Plan, p 18 - 5.3 replacement of luminaries no longer supported

30 WSROC (by Ironbark sustainability), *Submission to the Endeavour Energy Electricity Distribution Price Review Process for 2019-2024*, August 2018, p. 10.

31 Page 3 of Hawkesbury City Council, submitted August 2018

NSW public lighting code

The NSW Government has updated the Public Lighting Code (Code).[32] The revised Code commences on 1 July 2019. Under the revised Code, compliance is mandatory for public lighting service providers as a condition to the electricity distribution licence issued under the *Electricity Supply Act 1995* (NSW). The Code has been updated at the final stage of our draft decision assessment of Endeavour's public lighting proposal. It will be open to Endeavour to incorporate changes to its public lighting proposal with its revised regulatory proposal.

15.6 Metering services

Endeavour's type 5 and 6 metering services are classified as alternative control services.[33] Endeavour's type 7 metering services,[34] however, are classified as standard control services.[35] Metering assets are used to measure electrical energy flows at a point in the network to record consumption for the purposes of billing.

Since introduction of the Power of Choice reforms on 1 December 2017, Endeavour is no longer responsible for installation of new meters and is prohibited from installing type 5 or type 6 meters from 1 April 2018. Customers are now able to source new meters from the market. New minimum standards for meters mean that only advanced or 'smart' meters with remote communications capability may now be installed.

We are responsible for setting charges for type 5 and 6 metering services which, going forward, do not relate to the provision of types 5 and 6 meters, so do not include up front capital charges for new meters. However, the charges we determine do relate to the reading and, in the case of Endeavour's residual stock of types 5 and 6 meters, the servicing of customer meters.

Prices for metering are based on the building block model. A total revenue requirement is calculated, driven mostly by forecast opex and capex costs. Starting with prices from the year before the start of the upcoming regulatory control period, the movement in prices year on year throughout the regulatory control period (CPI less the x factor) is determined.

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32 Email received on 16 October 2018 from NSW Energy.

33 Types 5 and 6 meters are mechanical interval and accumulation meters respectively.

34 Type 7 meters are unmetered connections, typically public lights, for which electricity consumption is estimated rather than metered.

35 AER, *Framework and approach* Ausgrid, Endeavour and Essential Energy *Regulatory control period commencing 1 July 2019*, July 2017, p. 27

15.6.1 Metering services—Draft decision

Service classification - Metering services

Our draft decision is to classify type 5 and 6 metering services as alternative control services. This is consistent with our final Framework and Approach and Endeavour's proposed classification of metering services.

Form of control - Metering services

Our draft decision is to apply a price cap form of control for metering services. This is consistent with our final Framework and Approach and Endeavour's proposed form of control for metering services. Under a price cap form of control, we set a schedule of prices for the first year of the regulatory period, 2019–20. For 2020–21 and subsequent years the prices for metering services are determined by adjusting the previous year's prices by the formula set out in Attachment 13 (Control mechanisms).

Metering services

Our draft decision is, with minor modifications, to accept Endeavour's metering proposal. Endeavour's proposed charging structure incorporated an increase of 24.69 per cent to its charges in the first year of the 2019–24 control period and then for charges to remain unchanged (with the exception of adjustments for inflation) for the remainder of the control period.

Our draft decision is that Endeavour's metering charges will instead increase by 15.46 per cent in the first year of the 2019–24 regulatory control period and then increase by 2.12 per cent (plus inflation) for the remainder of the regulatory control period. Our draft decision rates are set out in Table 15-12.

Our draft decision is to accept the following elements of Endeavour's metering proposal, which we consider are consistent with the pricing principles and promotion of the national pricing objective:

- Opening metering asset base

  Our draft decision is to accept an opening metering asset base (MAB) value as at 1 July 2019 of $16.08 million ($nominal). Our draft decision is based on our assessment of Endeavour's application of the methodology from the Roll Forward Model, within its own custom metering model.[36]

- Depreciation

  Our draft decision is to accept the proposed remaining lives of the metering asset categories.

  Consistent with our draft decision for standard control services, we specify that forecast, as opposed to actual, depreciation will apply to Endeavour's MAB.

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[36] Endeavour, *14.06 Metering Pricing Model - November 2017*, "Calc Asset Roll Forward" tab

- Rate of return

  Our draft decision is to accept that the same WACC and imputation credit (gamma) values for standard control services should apply to alternative control metering services.

  See attachment 3 for our decision on WACC and gamma values, along with our reasons.

  However, unlike for standard control service, we will not be annually adjusting Endeavour's return on debt.

- Forecast capex

  Our draft decision is to accept Endeavour's proposed forecast capex building block of $0.50 million.

However, we consider Endeavour's opex proposal was not adequately justified. We are not satisfied the methodology Endeavour used to estimate its metering opex was appropriate. Our draft decision is to substitute Endeavour's forecast opex of $94.3 million with $90.0 million ($2018–19).

15.6.2 Metering services—Reasons for draft determination

Structure of Metering Charges

Our draft determination approves Endeavour's proposed metering structure:

- This is an annual charge comprising of two components:
  - capital —metering asset base (MAB) recovery
  - non-capital —operating expenditure (opex).

These charges are then further divided into rates depending on the customer and tariff type such as residential anytime or controlled load.[37]

This structure is consistent with the approved structure in the current regulatory period, with the exception that an upfront charge for meter installation no longer applies as Endeavour is no longer responsible for installing meters.

Endeavour's proposed metering tariff structure is both reflective of the actual costs involved in the provision of metering services and, due to being consistent with current charges, easy for customers to understand.

Forecast Capex

Endeavour is no longer responsible for installing meters and has therefore not proposed any new capex for meters. The only capex Endeavour proposed is $0.5 million ($2018–19) for meter testing equipment. [38]

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[37] Endeavour Energy, *Regulatory Proposal 1 July 2019 to 30 June 2024*, April 2018, p. 205

We consider that this level of capex is justifiable taking into account Endeavour's need to meet its obligations.

Regulatory Asset Base and Asset Lives

Endeavour forecast forward its asset base using a modified version of the AER's approved Roll Forward Model. The principles underlying Endeavour's approach are consistent with what we consider to be best practice.

Forecast Opex

Our draft decision is to substitute Endeavour's proposed opex allowance $94.3 million with $90.0 million ($2018–19).

Endeavour proposed that, as its meter population reduces, it will experience a reduction in opex efficiency. In other words, opex per customer would increase even if overall opex would decrease. This reflects that some fixed costs which remain fixed and have to be spread over a smaller number of meters, while the time spent on reading meters will increase as the distance between meters (and hence travel time) increases. [39]

Endeavour engaged Energeia to assess the effect of diseconomies of scale. Energeia recommended that Endeavour is likely to avoid 23 per cent of its base unit costs for each reduction in customer numbers.[40] In practice, this means that Energeia is forecasting Endeavour's customer numbers to decrease by 19.7 per cent during the 2019–24 regulatory control period compared to the average during the 2014–19 regulatory control period, yet opex is only expected to reduce by 4.53 per cent (in real terms).[41]

We assessed Endeavour's proposed metering opex using a top-down 'base–step–trend' approach. This is our preferred approach to assessing most opex categories.[42] In particular, we:

- used the 'revealed costs' approach as the starting point and removed any non–recurrent expenditure
- adjusted for any step changes if we were satisfied that a prudent and efficient service provider would require them
- trended forward the base opex (plus any step changes).

We also had regard to benchmarking when considering Endeavour's proposed metering opex. We compared Endeavour's metering opex proposal to proposals from other distributors, particularly the other NSW distributors Ausgrid and Essential Energy.

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38 Endeavour Energy, *Regulatory Proposal 1 July 2019 to 30 June 2024*, April 2018, p. 200

39 Endeavour Energy, *Regulatory Proposal 1 July 2019 to 30 June 2024*, April 2018, p. 204

40 Energeia*, FINAL Forecast of Efficient Type-5/6 Metering Operating Costs*, November 2017, p. 4

41 Endeavour Energy - Energeia, *14.02 Metering – Cost of Service Mode*l, November 2017, Summary Tab

42 AER, *Better regulation: Expenditure forecast assessment guideline for distribution*, November 2013, p. 32.

Further, with particular regard to the productivity adjustment, we considered:

- whether Energeia's analysis is meaningful
- whether Endeavour's implementation of that analysis appropriately reflects Energeia's analysis
- how the resultant productivity adjustment benchmarks against Endeavour's peers.

Base

Endeavour proposed a base metering opex of $20.10 per customer ($2017). This is based on revealed costs from financial year 2014 (2013–14) to financial year 2017 (2016–17). The result involves calculating the average opex over the period, divided by average customer numbers. This is mathematically equivalent to taking total opex divided by total customer numbers.[43]

We consider this an appropriate methodology.

Step

Endeavour did not propose any step changes. [44] We consider this appropriate as no reason for a step change has been put forward.

Trend

Endeavour trended its opex based on Energeia's analysis. This is discussed further below.

Energeia Analysis

We have reservations about the approach undertaken by Energeia with respect to estimating diseconomies of scale. We believe further justification is required with respect to the assumptions used.

Energeia's recommendation that Endeavour will only avoid 23 per cent of its base unit costs for each reduction in customer numbers suggests a large fixed element to costs which will not vary with meter numbers.

Figure 15-2 shows Energeia's forecast opex ($2017) compared to meter numbers including the base year and the years in the 2019–24 regulatory control period. It shows that the relationship is equivalent to assuming $14,394,740 in costs (77 per cent, accounting for rounding, of base year costs) will remain fixed and not change with meter numbers. There will then be a charge of $4.53 per meter.

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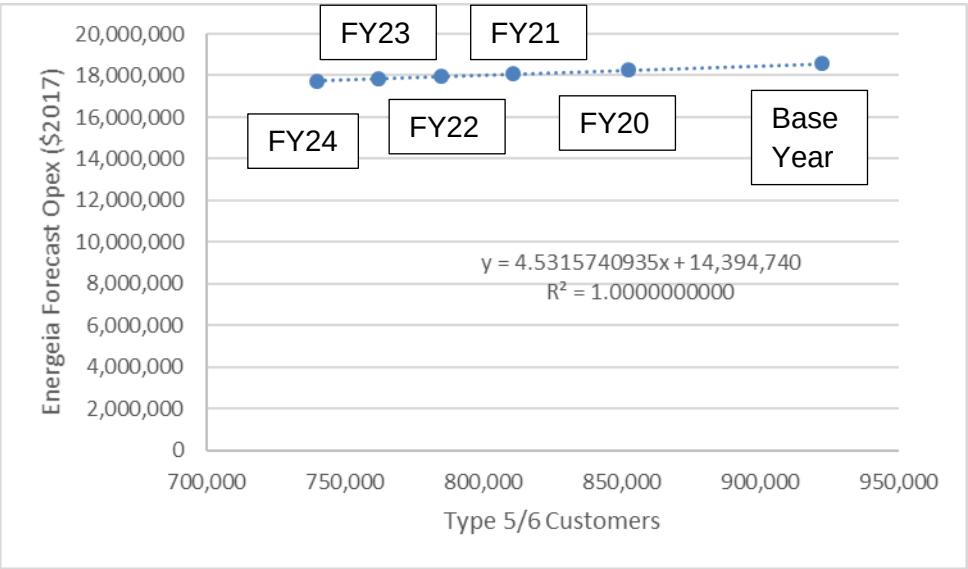
[43] Endeavour Energy, *Regulatory Proposal 1 July 2019 to 30 June 2024*, April 2018, p. 203

[44] Endeavour Energy, *Regulatory Proposal 1 July 2019 to 30 June 2024*, April 2018, p. 200

Figure 15-2 Energeia forecast opex ($2017) compared against customer numbers from cost of service model



Below we discuss the assumptions Energeia made and our approach to these.

Meter reading costs

Energeia assumed meter reading costs will reduce 25 per cent for every unit reduction in customer numbers. This is based on the assumption that 50 per cent of meter reading costs will be attributable to the labourer (with other costs including overheads and meter maintenance and vehicle costs) and 50 per cent of the labourer's costs will be avoidable costs. [45]

Given the significance of the assumption, we consider that the assumption that 50 per cent of meter reading costs are attributable to the labourer requires greater justification.

We also note meter maintenance costs could be expected to reduce with a reduction in meter population. Overheads and vehicle costs could also reduce if staffing levels reduce in line with reduced meter reading requirements. So we consider labourer costs may not reflect the only cost reductions if meter levels decrease.

We further consider greater detail around cost breakdown would be required to conclude that only 50 per cent of meter reading costs will be avoidable.

[45] Energeia, *FINAL Forecast of Efficient Type-5/6 Metering Operating Costs*, November 2017, p.31

Meter maintenance costs

Energeia assumed meter maintenance costs will not reduce with reduction in customer numbers. Rather, Energeia proposed testing requirements should remain relatively constant.[46]

However we note Endeavour forecast a reduction of 5 per cent per year in its LV CT testing as a result of the Power of Choice reforms.[47] So we consider there is at least some relationship between reduced meter numbers and reduced testing levels.

Data services

With respect to the provision of data services, Energeia assumed meter reading costs will reduce 100 per cent for every reduction in customer numbers. We consider this is reasonable. [48]

Endeavour Implementation

We must also consider whether Endeavour's implementation of Energeia's analysis is accurate.

Energeia developed a cost of service model reflecting the analysis presented in its report.[49] In its pricing model, Endeavour's opex costs are fixed numbers which do not show the calculation behind these numbers.[50]

Given Endeavour's nominal meter maintenance costs increase by 2.38 per cent per annum and that the methodology used assumes these are flat, it appears a 2.38 per cent forecast inflation has been applied to these costs.

We observe slight differences in Endeavour's opex figures to those from Energeia's cost of service model. However, these are not significant enough to require Endeavour's implementation, and Energeia's analysis, to be assessed separately.

Benchmarking

It still remains to benchmark Endeavour's proposed level of productivity adjustment. Ausgrid, Endeavour and Essential Energy all proposed productivity adjustments for the 2019–24 regulatory control period. We consider that, if efficient, the rate at which opex per customer will increase relative to a reduction in customer numbers will be comparable or lower relative to its peers.

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46 Energeia, *FINAL Forecast of Efficient Type-5/6 Metering Operating Costs*, November 2017, p.32

47 Endeavour Energy, *14.05 Metering Asset Management Plan*, August 2017, p. 7

48 Energeia, *FINAL Forecast of Efficient Type-5/6 Metering Operating Costs*, November 2017, p.32

49 Endeavour Energy - Energeia, *14.02 Metering – Cost of Service Mode*l, November 2017

50 Endeavour Energy, *IR007 Metering Pricing Model*, June 2018, Inputs Tab

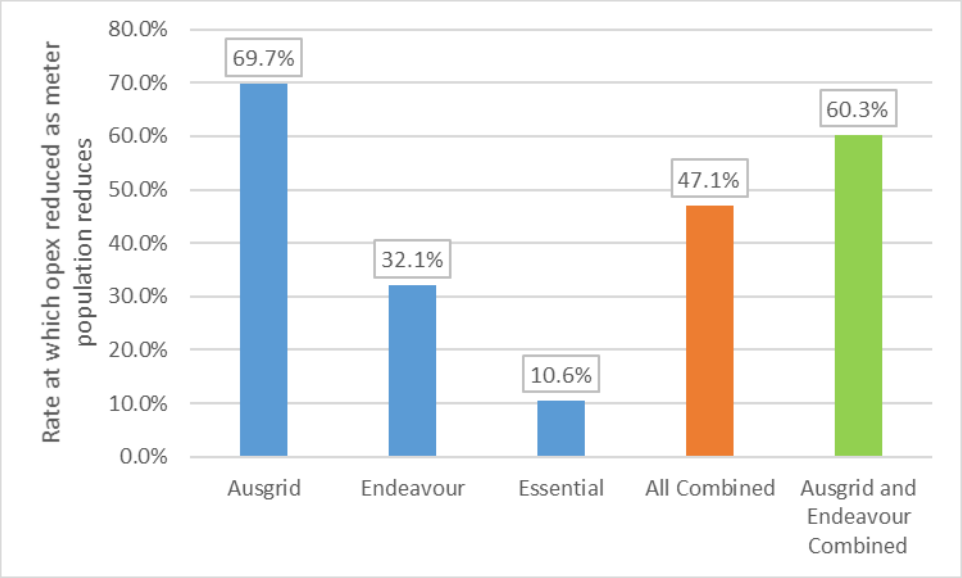
To make this comparison, we conducted a top down analysis. For each NSW distributor, we applied the following form to the relationship between its forecast opex in the 2019–24 regulatory control period with respect to meter numbers:

$$\log_e Opex = (Productivity\ Factor \times \log_e Meter\ Population) + Base\ Opex\ Level$$

In words, this means that the rate at which opex changes is relative to the rate at which the meter population changes, adjusted by some productivity factor. By applying this curve to each of the distributors, we can calculate an equivalent productivity factor on a common basis. We are not considering the *Base Opex Level* factor here as that will be determined by the base year chosen which we have already discussed above.

Figure 15-3 shows the *Productivity Factor* for all three distributors as well as a derived productivity factor through combining all three and combining Ausgrid and Endeavour only. Note that a **high** productivity factor indicates that as meter numbers reduce, opex reduces just as quickly (so a minimal loss in productivity which is **highly efficient**). A **low** productivity factor indicates that as meter number reduce, there is very little opex change (so a significant loss of productivity which is **inefficient**).

Figure 15-3 Comparing productivity adjustment for NSW businesses, all combined and Ausgrid and Endeavour combined[51]



Endeavour's productivity factor is less efficient than Ausgrid but more so than Essential Energy. We are therefore minded to recalculate Endeavour's opex, using a productivity factor more in line with the productivity factor used by Ausgrid. Recognising that there are elements which will impact an individual distributor's productivity as meter numbers reduce (such as existing customer density) we will not use the most efficient productivity factor of Ausgrid but instead will use the productivity factor of 60.3 per cent

[51] This represents the effect if we consider the forecast opex and forecast meter numbers in aggregate and find the productivity factor which suits the curve. It is not the same as an arithmetic average of the productivity factors.

derived by combining together Ausgrid and Endeavour's forecast opex and customer numbers.

Consistent with the approach we have taken in assessing Standard Control Services opex, we have then trended Endeavour's opex forward for labour rate escalation using the average of the Deloitte Access Economics and BIS Oxford Economics wage price indices.

In summary - our metering opex draft decision

Our draft decision to substitute Endeavour's proposed opex allowance of $94.3 million with $90.0 million ($2018–19) is driven by:

- accepting Endeavour's proposed base opex per customer
- our updated productivity factor based on our assessment of Energeia's report and our benchmarking analysis
- application of the average of the Deloitte Access Economics and BIS Oxford Economics wage price indices.

A Ancillary network services charges

Table 15-5 Fee based ancillary network service prices for 2019–20, AER draft decision ($2019–20)

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
Ancillary Services	Access permits, oversight and facilitation	Access Permits	All Other - Asset Relocation - Per access authorisation (AA) or authority to work (ATW)	Fee	$2,773.96	$2,338.97
Ancillary Services	Access permits, oversight and facilitation	Access Permits	All Other - Industrial & Commercial - Per access authorisation (AA) or authority to work (ATW)	Fee	$2,773.96	$2,338.97
Ancillary Services	Access permits, oversight and facilitation	Access Permits	All Other - Non Urban - Per access authorisation (AA) or authority to work (ATW)	Fee	$2,773.96	$2,338.97
Ancillary Services	Access permits, oversight and facilitation	Access Permits	All Other - Public Lighting - Per access authorisation (AA) or authority to work (ATW)	Fee	$2,773.96	$2,338.97
Ancillary Services	Access permits, oversight and facilitation	Access Permits	All Other - URD - Per access authorisation (AA) or authority to work (ATW)	Fee	$2,773.96	$2,338.97
Ancillary Services	Access permits, oversight and facilitation	Access Permits	Subdivision - URD - Per Lot	Fee	$64.06	$54.02
Ancillary Services	Access permits, oversight and facilitation	Clearance to Work	Clearance to Work	Fee	$2,311.63	$2,309.01
Ancillary Services	Access permits, oversight and facilitation	Customer Interface co-ordination	Customer Interface co-ordination for contestable works	Quote	$207.10	$196.39
Ancillary Services	Access permits, oversight and facilitation	Access permits, oversight and facilitation	Break & remake HV bonds - Each additional set	Fee	$2,069.61	$1,880.06
Ancillary Services	Access permits, oversight and facilitation	Access permits, oversight and facilitation	Break & remake HV bonds - One set	Fee	$3,738.71	$3,380.09
Ancillary Services	Access permits, oversight and facilitation	Access permits, oversight and facilitation	Break & remake LV bonds - Each additional set	Fee	$1,090.51	$992.60
Ancillary Services	Access permits, oversight and facilitation	Access permits, oversight and facilitation	Break & remake LV bonds - One set	Fee	$2,314.53	$2,095.78
Ancillary Services	Access permits, oversight and facilitation	Access permits, oversight and facilitation	Connect & disconnect generator to a padmount / indoor substation - Each	Fee	$1,001.38	$908.49

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
			additional gen			
Ancillary Services	Access permits, oversight and facilitation	Access permits, oversight and facilitation	Connect & disconnect generator to a padmount / indoor substation - One generator	Fee	$2,225.40	$2,011.66
Ancillary Services	Access permits, oversight and facilitation	Access permits, oversight and facilitation	Connect & disconnect generator to LV OH mains - Each additional generator	Fee	$1,001.38	$908.49
Ancillary Services	Access permits, oversight and facilitation	Access permits, oversight and facilitation	Connect & disconnect generator to LV OH mains - One generator	Fee	$2,225.40	$2,011.66
Ancillary Services	Access permits, oversight and facilitation	Access permits, oversight and facilitation	Install & remove HV live line links - Each additional set	Fee	$3,088.92	$2,805.47
Ancillary Services	Access permits, oversight and facilitation	Access permits, oversight and facilitation	Install & remove HV live line links - One set	Fee	$4,824.86	$4,368.58
Ancillary Services	Access permits, oversight and facilitation	Access permits, oversight and facilitation	Install & remove LV live line links - Each additional set	Fee	$1,059.82	$963.64
Ancillary Services	Access permits, oversight and facilitation	Access permits, oversight and facilitation	Install & remove LV live line links - One set	Fee	$2,283.84	$2,066.81
Ancillary Services	Access permits, oversight and facilitation	Provision of Access Fee (Standby)	Normal Time - 1 x Visit - Open / Close - 1 hour - Per Job	Fee	$166.90	$151.41
Ancillary Services	Access permits, oversight and facilitation	Provision of Access Fee (Standby)	Normal Time - 1 x Visit - Open / Isolate & CSO to close - 1 hour - Per Job	Fee	$345.03	$308.52
Ancillary Services	Access permits, oversight and facilitation	Provision of Access Fee (Standby)	Normal Time - 2 x Visit - Open / Close & no isolation - 2 hours - Per Job	Fee	$333.79	$302.83
Ancillary Services	Access permits, oversight and facilitation	Provision of Access Fee (Standby)	Normal Time - 2 x Visit - Open / Isolate / Close - 2 hours - Per Job	Fee	$690.07	$617.05
Ancillary Services	Access permits, oversight and facilitation	Provision of Access Fee (Standby)	Overtime - 1 x Visit - Open / Close - 1 hour - Per Job	Fee	$292.07	$264.98
Ancillary Services	Access permits, oversight and facilitation	Provision of Access Fee (Standby)	Overtime - 1 x Visit - Open / Isolate & CSO to close - 1 hour - Per Job	Fee	$603.81	$539.92
Ancillary Services	Access permits, oversight and facilitation	Provision of Access Fee (Standby)	Overtime - 2 x Visit - Open / Close & no isolation - 2 hours - Per Job	Fee	$584.14	$529.95
Ancillary Services	Access permits, oversight and	Provision of Access Fee	Overtime - 2 x Visit - Open / Isolate / Close - 2 hours - Per	Fee	$1,207.61	$1,079.83

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
	facilitation	(Standby)	Job			
Ancillary Services	Authorisation of ASPs	Authorisation	Authorisation - New	Fee	$489.52	$448.50
Ancillary Services	Authorisation of ASPs	Authorisation	Authorisation - Renewal	Fee	$439.45	$403.08
Ancillary Services	Connection application related services	Administration Fee	Connection of Load - Industrial & Commercial - Per Hour	Quote	$103.90	$103.90
Ancillary Services	Connection application related services	Administration Fee	Connection of Load - Non Urban - Overhead - 11+ poles	Fee	$831.18	$831.18
Ancillary Services	Connection application related services	Administration Fee	Connection of Load - Non Urban - Overhead - 1-5 poles	Fee	$415.59	$415.59
Ancillary Services	Connection application related services	Administration Fee	Connection of Load - Non Urban - Overhead - 6-10 poles	Fee	$623.39	$623.39
Ancillary Services	Connection application related services	Administration Fee	Connection of Load - Non Urban - Underground - Per Hour	Quote	$103.90	$103.90
Ancillary Services	Connection application related services	Administration Fee	Connection of Load - URD - Per Hour	Quote	$103.90	$103.90
Ancillary Services	Connection application related services	Administration Fee	Other - Asset Relocation - Per Hour	Quote	$103.90	$103.90
Ancillary Services	Connection application related services	Administration Fee	Other - Public Lighting - Per Hour	Quote	$103.90	$103.90
Ancillary Services	Connection application related services	Administration Fee	Subdivision - Industrial & Commercial - Per Hour	Quote	$103.90	$103.90
Ancillary Services	Connection application related services	Administration Fee	Subdivision - Non Urban - Overhead - 11+ poles	Fee	$935.08	$935.08
Ancillary Services	Connection application related services	Administration Fee	Subdivision - Non Urban - Overhead - 1-5 poles	Fee	$415.59	$415.59
Ancillary Services	Connection application related services	Administration Fee	Subdivision - Non Urban - Overhead - 6-10 poles	Fee	$519.49	$519.49
Ancillary Services	Connection application related services	Administration Fee	Subdivision - Non Urban - Underground - 11-40 lots	Fee	$519.49	$519.49
Ancillary	Connection application related	Administration Fee	Subdivision - Non Urban -	Fee	$311.69	$311.69

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
Services	services		Underground - 1-5 lots			
Ancillary Services	Connection application related services	Administration Fee	Subdivision - Non Urban - Underground - 41+ lots	Fee	$623.39	$623.39
Ancillary Services	Connection application related services	Administration Fee	Subdivision - Non Urban - Underground - 6-10 lots	Fee	$415.59	$415.59
Ancillary Services	Connection application related services	Administration Fee	Subdivision - URD - Underground - 11-40 lots	Fee	$727.28	$727.28
Ancillary Services	Connection application related services	Administration Fee	Subdivision - URD - Underground - 1-5 lots	Fee	$415.59	$415.59
Ancillary Services	Connection application related services	Administration Fee	Subdivision - URD - Underground - 41+ lots	Fee	$831.18	$831.18
Ancillary Services	Connection application related services	Administration Fee	Subdivision - URD - Underground - 6-10 lots	Fee	$519.49	$519.49
Ancillary Services	Contestable network commissioning and decommissioning	Substation Commission Fee	All Other - Asset Relocation - Per Substation	Fee	$1,946.36	$1,911.90
Ancillary Services	Contestable network commissioning and decommissioning	Substation Commission Fee	All Other - Industrial & Commercial - Per Substation	Fee	$1,946.36	$1,911.90
Ancillary Services	Contestable network commissioning and decommissioning	Substation Commission Fee	All Other - Non Urban - Per Substation	Fee	$1,946.36	$1,911.90
Ancillary Services	Contestable network commissioning and decommissioning	Substation Commission Fee	All Other - Public Lighting - Per Substation	Fee	$1,946.36	$1,911.90
Ancillary Services	Contestable network commissioning and decommissioning	Substation Commission Fee	All Other - URD - Per Substation	Fee	$1,946.36	$1,911.90
Ancillary Services	Contestable network commissioning and decommissioning	Substation Commission Fee	Subdivision - URD - Per Lot	Fee	$67.12	$65.93
Ancillary Services	Customer initiated asset relocations	Customer initiated Asset Relocations - network safety	Customer initiated Asset Relocations - network safety	Quote	$184.23	$155.34
Ancillary Services	Design related services	Design Certification Fee	Asset Relocation - Designer	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Certification Fee	Asset Relocation - Engineer	Quote	$166.60	$157.11
Ancillary	Design related	Design	Connection of Load - Indoor	Fee	$166.60	$157.11

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
Services	services	Certification Fee	Substation - Per Hour			
Ancillary Services	Design related services	Design Certification Fee	Connection of Load - Industrial & Commercial - <= 200A/Phase (LV)	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Certification Fee	Connection of Load - Industrial & Commercial - <= 700A/Phase (LV)	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Certification Fee	Connection of Load - Industrial & Commercial - > 700A/Phase (LV)	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Certification Fee	Connection of Load - Industrial & Commercial - HV Customer	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Certification Fee	Connection of Load - Industrial & Commercial - Transmission	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Certification Fee	Connection of Load - Multi-Dwelling - <= 20 units	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Certification Fee	Connection of Load - Multi-Dwelling - <= 40 units	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Certification Fee	Connection of Load - Multi-Dwelling - <= 5 units	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Certification Fee	Connection of Load - Multi-Dwelling - > 40 units	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Certification Fee	Connection of Load - Non Urban - Overhead - 11+ poles	Fee	$833.01	$785.55
Ancillary Services	Design related services	Design Certification Fee	Connection of Load - Non Urban - Overhead - 1-5 poles	Fee	$333.21	$314.22
Ancillary Services	Design related services	Design Certification Fee	Connection of Load - Non Urban - Overhead - 6-10 poles	Fee	$499.81	$471.33
Ancillary Services	Design related services	Design Certification Fee	Connection of Load - Non Urban - Underground - Per Hour	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Certification Fee	Public Lighting - Designer	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Certification Fee	Public Lighting - Engineer	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Certification Fee	Subdivision - Industrial & Commercial - Overhead - 11+ poles	Fee	$833.01	$785.55
Ancillary Services	Design related services	Design Certification Fee	Subdivision - Industrial & Commercial - Overhead - 1-5 poles	Fee	$333.21	$314.22
Ancillary Services	Design related services	Design Certification Fee	Subdivision - Industrial & Commercial - Overhead - 6-10	Fee	$499.81	$471.33

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
			poles			
Ancillary Services	Design related services	Design Certification Fee	Subdivision - Industrial & Commercial - Underground - 1-10 lots	Fee	$499.81	$471.33
Ancillary Services	Design related services	Design Certification Fee	Subdivision - Industrial & Commercial - Underground - 11-40 lots	Fee	$666.41	$628.44
Ancillary Services	Design related services	Design Certification Fee	Subdivision - Industrial & Commercial - Underground - 41 + lots	Fee	$999.62	$942.66
Ancillary Services	Design related services	Design Certification Fee	Subdivision - Non Urban - Overhead - 11+ poles	Fee	$833.01	$785.55
Ancillary Services	Design related services	Design Certification Fee	Subdivision - Non Urban - Overhead - 1-5 poles	Fee	$333.21	$314.22
Ancillary Services	Design related services	Design Certification Fee	Subdivision - Non Urban - Overhead - 6-10 poles	Fee	$499.81	$471.33
Ancillary Services	Design related services	Design Certification Fee	Subdivision - Non Urban - Underground - 11-40 lots	Fee	$666.41	$628.44
Ancillary Services	Design related services	Design Certification Fee	Subdivision - Non Urban - Underground - 1-5 lots	Fee	$166.60	$157.11
Ancillary Services	Design related services	Design Certification Fee	Subdivision - Non Urban - Underground - 41+ lots	Fee	$666.41	$628.44
Ancillary Services	Design related services	Design Certification Fee	Subdivision - Non Urban - Underground - 6-10 lots	Fee	$499.81	$471.33
Ancillary Services	Design related services	Design Certification Fee	Subdivision - URD - Underground - 11-40 lots	Fee	$833.01	$785.55
Ancillary Services	Design related services	Design Certification Fee	Subdivision - URD - Underground - 1-5 lots	Fee	$333.21	$314.22
Ancillary Services	Design related services	Design Certification Fee	Subdivision - URD - Underground - 41+ lots	Fee	$999.62	$942.66
Ancillary Services	Design related services	Design Certification Fee	Subdivision - URD - Underground - 6-10 lots	Fee	$499.81	$471.33
Ancillary Services	Design related services	Design Information Fee	Asset Relocation - Designer	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Asset Relocation - Engineer	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Industrial & Commercial - <= 200A/Phase (LV)	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Industrial & Commercial - <= 700A/Phase (LV)	Quote	$166.60	$157.11

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Industrial & Commercial - > 700A/Phase (LV)	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Industrial & Commercial - HV Customer	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Industrial & Commercial - Transmission	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Multi-Dwelling - <= 20 units	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Multi-Dwelling - <= 40 units	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Multi-Dwelling - <= 5 units	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Multi-Dwelling - > 40 units	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Non Urban - I&C - <= 200A/Phase (LV)	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Non Urban - I&C - <= 700A/Phase (LV)	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Non Urban - I&C - > 700A/Phase (LV)	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Non Urban - I&C - HV Customer	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Non Urban - I&C - Transmission	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Non Urban - Multi-Dwelling - <= 20 units	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Non Urban - Multi-Dwelling - <= 40 units	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Non Urban - Multi-Dwelling - <= 5 units	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Non Urban - Multi-Dwelling - > 40 units	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Connection of Load - Non Urban - Single Residential - Per Hour	Quote	$166.60	$157.11
Ancillary	Design related	Design Information	Public Lighting - Designer	Quote	$166.60	$157.11

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
Services	services	Fee				
Ancillary Services	Design related services	Design Information Fee	Public Lighting - Engineer	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Subdivision - Industrial & Commercial - Per Hour	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Subdivision - Non Urban - Per Hour	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Information Fee	Subdivision - URD - Underground - 11-40 lots	Fee	$1,166.22	$1,099.77
Ancillary Services	Design related services	Design Information Fee	Subdivision - URD - Underground - 1-5 lots	Fee	$499.81	$471.33
Ancillary Services	Design related services	Design Information Fee	Subdivision - URD - Underground - 41+ lots	Fee	$1,499.42	$1,413.99
Ancillary Services	Design related services	Design Information Fee	Subdivision - URD - Underground - 6-10 lots	Fee	$666.41	$628.44
Ancillary Services	Design related services	Design Re-certification Fee	Asset Relocation - Designer	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Re-certification Fee	Asset Relocation - Engineer	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Re-certification Fee	Connection of Load - Industrial & Commercial - Per Hour	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Re-certification Fee	Connection of Load - Non Urban - Per Hour	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Re-certification Fee	Connection of Load - URD - Per Hour	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Re-certification Fee	Public Lighting - Designer	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Re-certification Fee	Public Lighting - Engineer	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Re-certification Fee	Subdivision - Industrial & Commercial - Per Hour	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Re-certification Fee	Subdivision - Non Urban - Per Hour	Quote	$166.60	$157.11
Ancillary Services	Design related services	Design Re-certification Fee	Subdivision - URD - Per Hour	Quote	$166.60	$157.11
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Asset Relocation - Asset Relocation - Underground - Per Hour (Engineer) + travel time	Quote	$166.60	$157.11
Ancillary Services	Inspection services − Private electrical installations and	Inspection of Service Work	Asset Relocation - Asset Relocation - Underground - Per Hour (Inspector) + travel	Quote	$166.60	$157.11

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
	accredited service providers (ASPs)	(Level 1)	time			
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Industrial & Commercial - Overhead - Per Pole (1 - 5) - Grade A	Fee	$99.96	$94.27
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Industrial & Commercial - Overhead - Per Pole (1 - 5) - Grade B	Fee	$191.59	$180.68
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Industrial & Commercial - Overhead - Per Pole (1 - 5) - Grade C	Fee	$366.53	$345.64
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Industrial & Commercial - Overhead - Per Pole (11+) - Grade A	Fee	$66.64	$62.84
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Industrial & Commercial - Overhead - Per Pole (11+) - Grade B	Fee	$116.62	$109.98
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Industrial & Commercial - Overhead - Per Pole (11+) - Grade C	Fee	$249.90	$235.66
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Industrial & Commercial - Overhead - Per Pole (6 - 10) - Grade A	Fee	$83.30	$78.55
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Industrial & Commercial - Overhead - Per Pole (6 - 10) - Grade B	Fee	$166.60	$157.11
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Industrial & Commercial - Overhead - Per Pole (6 - 10) - Grade C	Fee	$331.54	$312.65
Ancillary Services	Inspection services − Private electrical installations and accredited service	Inspection of Service Work (Level 1)	Connection of Load - Industrial & Commercial - Overhead - Per Pole Sub - Grade A	Fee	$583.11	$549.88

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
	providers (ASPs)					
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Industrial & Commercial - Overhead - Per Pole Sub - Grade B	Fee	$1,166.22	$1,099.77
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Industrial & Commercial - Overhead - Per Pole Sub - Grade C	Fee	$1,466.10	$1,382.56
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Industrial & Commercial - Underground - Per Hour (Engineer) + travel time	Quote	$166.60	$157.11
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Industrial & Commercial - Underground - Per Hour (Inspector) + travel time	Quote	$166.60	$157.11
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Non Urban - Overhead - Per Pole (1 - 5) - Grade A	Fee	$99.96	$94.27
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Non Urban - Overhead - Per Pole (1 - 5) - Grade B	Fee	$199.92	$188.53
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Non Urban - Overhead - Per Pole (1 - 5) - Grade C	Fee	$366.53	$345.64
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Non Urban - Overhead - Per Pole (11 +) - Grade A	Fee	$66.64	$62.84
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Non Urban - Overhead - Per Pole (11 +) - Grade B	Fee	$116.62	$109.98
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Non Urban - Overhead - Per Pole (11 +) - Grade C	Fee	$249.90	$235.66

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Non Urban - Overhead - Per Pole (6 - 10) - Grade A	Fee	$83.30	$78.55
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Non Urban - Overhead - Per Pole (6 - 10) - Grade B	Fee	$166.60	$157.11
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Non Urban - Overhead - Per Pole (6 - 10) - Grade C	Fee	$331.54	$312.65
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Non Urban - Overhead - Per Pole Sub - Grade A	Fee	$566.45	$534.17
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Non Urban - Overhead - Per Pole Sub - Grade B	Fee	$1,166.22	$1,099.77
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Non Urban - Overhead - Per Pole Sub - Grade C	Fee	$1,416.12	$1,335.43
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Non Urban - Underground - Per hour (Engineer) + travel time	Quote	$166.60	$157.11
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - Non Urban - Underground - Per hour (Inspector) + travel time	Quote	$166.60	$157.11
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - URD - Underground - Per hour (Engineer) + travel time	Quote	$166.60	$157.11
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Connection of Load - URD - Underground - Per hour (Inspector) + travel time	Quote	$166.60	$157.11

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Public Lighting - Public Lighting - Underground - Per Hour (Engineer) + travel time	Quote	$166.60	$157.11
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Public Lighting - Public Lighting - Underground - Per Hour (Inspector) + travel time	Quote	$166.60	$157.11
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Overhead - Per Pole (1 - 5) - Grade A	Fee	$99.96	$94.27
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Overhead - Per Pole (1 - 5) - Grade B	Fee	$183.26	$172.82
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Overhead - Per Pole (1 - 5) - Grade C	Fee	$366.53	$345.64
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Overhead - Per Pole (11 +) - Grade A	Fee	$66.64	$62.84
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Overhead - Per Pole (11 +) - Grade B	Fee	$116.62	$109.98
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Overhead - Per Pole (11 +) - Grade C	Fee	$249.90	$235.66
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Overhead - Per Pole (6 - 10) - Grade A	Fee	$83.30	$78.55
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Overhead - Per Pole (6 - 10) - Grade B	Fee	$166.60	$157.11

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Overhead - Per Pole (6 - 10) - Grade C	Fee	$331.54	$312.65
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Overhead - Per Pole Sub - Grade A	Fee	$583.11	$549.88
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Overhead - Per Pole Sub - Grade B	Fee	$1,166.22	$1,099.77
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Overhead - Per Pole Sub - Grade C	Fee	$1,466.10	$1,382.56
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Underground - Per Lot (1 - 10) - Grade A	Fee	$83.30	$78.55
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Underground - Per Lot (1 - 10) - Grade B	Fee	$199.92	$188.53
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Underground - Per Lot (1 - 10) - Grade C	Fee	$416.51	$392.77
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Underground - Per Lot (11 - 50) - Grade A	Fee	$83.30	$78.55
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Underground - Per Lot (11 - 50) - Grade B	Fee	$199.92	$188.53
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Underground - Per Lot (11 - 50) - Grade C	Fee	$416.51	$392.77

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Underground - Per Lot (51+) - Grade A	Fee	$83.30	$78.55
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Underground - Per Lot (51+) - Grade B	Fee	$199.92	$188.53
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Industrial & Commercial - Underground - Per Lot (51+) - Grade C	Fee	$416.51	$392.77
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Overhead - Per Pole (1 - 5) - Grade A	Fee	$99.96	$94.27
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Overhead - Per Pole (1 - 5) - Grade B	Fee	$199.92	$188.53
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Overhead - Per Pole (1 - 5) - Grade C	Fee	$333.21	$314.22
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Overhead - Per Pole (11 +) - Grade A	Fee	$66.64	$62.84
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Overhead - Per Pole (11 +) - Grade B	Fee	$108.29	$102.12
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Overhead - Per Pole (11 +) - Grade C	Fee	$233.24	$219.95
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Overhead - Per Pole (6 - 10) - Grade A	Fee	$83.30	$78.55

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Overhead - Per Pole (6 - 10) - Grade B	Fee	$166.60	$157.11
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Overhead - Per Pole (6 - 10) - Grade C	Fee	$308.21	$290.65
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Overhead - Per Pole Sub - Grade A	Fee	$566.45	$534.17
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Overhead - Per Pole Sub - Grade B	Fee	$1,166.22	$1,099.77
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Overhead - Per Pole Sub - Grade C	Fee	$1,416.12	$1,335.43
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Underground - Per Lot (1 - 10) - Grade A	Fee	$83.30	$78.55
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Underground - Per Lot (1 - 10) - Grade B	Fee	$199.92	$188.53
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Underground - Per Lot (1 - 10) - Grade C	Fee	$424.84	$400.63
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Underground - Per Lot (11 - 50) - Grade A	Fee	$49.98	$47.13
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Underground - Per Lot (11 - 50) - Grade B	Fee	$108.29	$102.12

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Underground - Per Lot (11 - 50) - Grade C	Fee	$249.90	$235.66
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Underground - Per Lot (51+) - Grade A	Fee	$16.66	$15.71
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Underground - Per Lot (51+) - Grade B	Fee	$66.64	$62.84
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - Non Urban - Underground - Per Lot (51+) - Grade C	Fee	$116.62	$109.98
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - URD - Underground - Per Hour + $44 travel time	Quote	$166.60	$157.11
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - URD - Underground - Per Lot (1 - 10) - Grade A	Fee	$83.30	$78.55
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - URD - Underground - Per Lot (1 - 10) - Grade B	Fee	$191.59	$180.68
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - URD - Underground - Per Lot (1 - 10) - Grade C	Fee	$416.51	$392.77
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - URD - Underground - Per Lot (11 - 50) - Grade A	Fee	$49.98	$47.13
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - URD - Underground - Per Lot (11 - 50) - Grade B	Fee	$116.62	$109.98

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - URD - Underground - Per Lot (11 - 50) - Grade C	Fee	$233.24	$219.95
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - URD - Underground - Per Lot (51 +) - Grade A	Fee	$16.66	$15.71
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - URD - Underground - Per Lot (51 +) - Grade B	Fee	$66.64	$62.84
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of Service Work (Level 1)	Subdivision - URD - Underground - Per Lot (51 +) - Grade C	Fee	$108.29	$102.12
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of service work (Level 2 work)	Per NOSW - A Grade	Fee	$58.31	$54.99
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of service work (Level 2 work)	Per NOSW - B Grade	Fee	$99.96	$94.27
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of service work (Level 2 work)	Per NOSW - C Grade	Fee	$333.21	$314.22
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of works outside normal working hours	Access Permits	Fee	$2,773.96	$2,338.97
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of works outside normal working hours	Administration Fee	Fee	$55.55	$52.37
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Inspection of works outside normal working hours	Overtime Hours Rate	Quote	$83.32	$78.55

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Investigation, review & implementation of remedial actions associated with ASP's connection work	Investigation, review & implementation of remedial actions associated with ASP's connection work.	Quote	$166.60	$157.11
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Private inspection	Private inspection of privately owned low voltage or high voltage network infrastructure (i.e. privately owned distribution infrastructure before the meter).	Quote	$166.60	$157.11
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Reinspection Fee (Level 1 & Level 2 work)	Reinspection Fee (Level 1 & Level 2 work)	Quote	$166.60	$157.11
Ancillary Services	Network related property services	Conveyancing Information	Supply of conveyancing information - Per Desk Inquiry	Fee	$69.14	$51.95
Ancillary Services	Network related property services	Services involved in obtaining deeds of agreement	Services involved in obtaining deeds of agreement in relation to property rights associated with contestable connections work	Quote	$166.60	$157.11
Ancillary Services	Network safety services	De-energisation safety services	de-energising wires for safe approach (e.g. for tree pruning)	Fee	$351.38	$351.38
Ancillary Services	Network safety services	Network safety services	Traffic Management to install & remove, break & remake, connect & disconnect excluded distribution services	Fee	$4,382.26	$4,339.53
Ancillary Services	Network safety services	Network safety services	Traffic Management to test, terminate and joint excluded distribution services	Fee	$4,020.03	$3,977.30
Ancillary Services	Network safety services	Rectification Works For these jobs, materials & other costs are charged at purchase price + overheads	Fitting of tiger tails (Labour) - Per Hour	Quote	$156.09	$151.41
Ancillary Services	Network safety services	Rectification Works For these jobs, materials & other costs are charged at purchase price + overheads	Fitting of tiger tails (Material) - Weekly Hire	Quote	$5.88	$5.55
Ancillary	Network safety	Rectification Works For these	High load escorts - Per Hour	Quote	$156.09	$151.41

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
Services	services	jobs, materials & other costs are charged at purchase price + overheads				
Ancillary Services	Network safety services	Rectification Works For these jobs, materials & other costs are charged at purchase price + overheads	Provision of service crew / additional crew - Per Hour	Quote	$156.09	$151.41
Ancillary Services	Network safety services	Rectification Works For these jobs, materials & other costs are charged at purchase price + overheads	Rectification of illegal connections - Per Job	Fee	$624.37	$605.66
Ancillary Services	Notices of arrangement and completion notices	Compliance Certificate	Connection of Load - Industrial & Commercial - Per Compliance Cert	Fee	$207.80	$207.80
Ancillary Services	Notices of arrangement and completion notices	Compliance Certificate	Connection of Load - Industrial & Commercial - Per hour for early cert	Quote	$103.90	$103.90
Ancillary Services	Notices of arrangement and completion notices	Compliance Certificate	Connection of Load - Non Urban - Per Compliance Cert	Fee	$311.69	$311.69
Ancillary Services	Notices of arrangement and completion notices	Compliance Certificate	Connection of Load - Non Urban - Per hour for early cert	Quote	$103.90	$103.90
Ancillary Services	Notices of arrangement and completion notices	Compliance Certificate	Connection of Load - URD - Per Compliance Cert	Fee	$207.80	$207.80
Ancillary Services	Notices of arrangement and completion notices	Compliance Certificate	Connection of Load - URD - Per hour for early cert	Quote	$103.90	$103.90
Ancillary Services	Notices of arrangement and completion notices	Notification of Arrangement	Subdivision - Industrial & Commercial - Per hour for early notification	Quote	$103.90	$103.90
Ancillary Services	Notices of arrangement and completion notices	Notification of Arrangement	Subdivision - Industrial & Commercial - Per NOA	Fee	$207.80	$207.80
Ancillary Services	Notices of arrangement and completion notices	Notification of Arrangement	Subdivision - Non Urban - Per hour for early notification	Quote	$103.90	$103.90
Ancillary Services	Notices of arrangement and completion notices	Notification of Arrangement	Subdivision - Non Urban - Per NOA	Fee	$207.80	$207.80

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
Ancillary Services	Notices of arrangement and completion notices	Notification of Arrangement	Subdivision - URD - Per hour for early notification	Quote	$103.90	$103.90
Ancillary Services	Notices of arrangement and completion notices	Notification of Arrangement	Subdivision - URD - Per NOA	Fee	$207.80	$207.80
Ancillary Services	Off-peak conversion	Off Peak Conversions	Off Peak Conversion site visit (no access)	Fee	$117.07	$113.56
Ancillary Services	Off-peak conversion	Off Peak Conversions	Off Peak Conversions	Fee	$130.08	$126.18
Ancillary Services	Planned Interruption – Customer requested	Planned interruption - customer requested	Planned interruption - customer requested	Quote	$154.83	$154.83
Ancillary Services	Provision of training to third parties for network related access	Training services to ASPs	Training services to ASPs	Quote	$166.90	$151.41
Ancillary Services	Rectification works to maintain network safety	Vegetation defect management	Vegetation defect management	Fee	$156.09	$151.41
Ancillary Services	Site establishment services	Site Establishment Fee	Error correction due to incorrect information received from Retailers or Metering Providers (no Site Visit)	Fee	$159.75	$159.75
Ancillary Services	Site establishment services	Site Establishment Fee	Non market Site Establishment	Fee	$11.98	$11.98
Ancillary Services	Site establishment services	Site Establishment Fee	Site Establishment - Per NMI	Fee	$41.86	$41.86
Ancillary Services	Site establishment services	Site Establishment Fee	Site Establishment assessment that does not result in the allocation of a NMI.	Fee	$9.98	$9.98
Ancillary Services	Termination of cable at zone substation – distributor required performance	Termination of cable at zone substation – distributor required performance	11kV Padmount/Indoor substation cable termination	Fee	$4,561.75	$4,162.95
Ancillary Services	Termination of cable at zone substation – distributor required performance	Termination of cable at zone substation – distributor required performance	11kV Pole top termination (UGOH) and bonding to OH	Fee	$5,379.69	$4,934.90
Ancillary Services	Termination of cable at zone substation – distributor required performance	Termination of cable at zone substation – distributor required performance	11kV Straight through joint	Fee	$4,492.73	$4,097.81

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
Ancillary Services	Termination of cable at zone substation – distributor required performance	Termination of cable at zone substation – distributor required performance	11kV Zone substation circuit breaker cable termination	Fee	$4,217.60	$3,838.15
Ancillary Services	Termination of cable at zone substation – distributor required performance	Termination of cable at zone substation – distributor required performance	22kV Padmount/Indoor substation cable termination	Fee	$5,503.73	$5,051.97
Ancillary Services	Termination of cable at zone substation – distributor required performance	Termination of cable at zone substation – distributor required performance	22kV Pole top termination (UGOH) and bonding to OH	Fee	$6,009.13	$5,528.94
Ancillary Services	Termination of cable at zone substation – distributor required performance	Termination of cable at zone substation – distributor required performance	22kV Straight through joint	Fee	$4,684.84	$4,279.11
Ancillary Services	Termination of cable at zone substation – distributor required performance	Termination of cable at zone substation – distributor required performance	22kV Zone substation circuit breaker cable termination	Fee	$4,368.99	$3,981.02
Ancillary Services	Termination of cable at zone substation – distributor required performance	Termination of cable at zone substation – distributor required performance	Protection setting	Fee	$4,648.60	$4,111.04
Ancillary Services	Termination of cable at zone substation – distributor required performance	Termination of cable at zone substation – distributor required performance	Testing cable prior to commissioning	Fee	$5,277.03	$4,660.92
Ancillary Services	Termination of cable at zone substation – distributor required performance	Termination of cable at zone substation – distributor required performance	Zone substation access and supervision for installation of cable(s) for one feeder	Fee	$3,571.81	$3,228.67
Connection application related services	Connection Offer Service	Connection Offer Service	Connection Offer Service (Basic)	Fee	$27.77	$26.18
Connection application related services	Connection Offer Service	Connection Offer Service	Connection Offer Service (Standard)	Fee	$267.20	$235.66
Connection application related	Planning Studies	Planning Studies	Carrying out planning studies and analysis relating to distribution (including	Quote	$246.11	$216.02

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
services			subtransmission and dual function assets) connection applications - COMPLEX JOBS			
Connection application related services	Planning Studies	Planning Studies	Carrying out planning studies and analysis relating to distribution (including subtransmission and dual function assets) connection applications - SIMPLE JOBS	Quote	$207.10	$196.39
Connection application related services	Preliminary Enquiry Service	Preliminary Enquiry Service	Preliminary Enquiry Service - COMPLEX JOBS	Quote	$246.11	$216.02
Connection application related services	Preliminary Enquiry Service	Preliminary Enquiry Service	Preliminary Enquiry Service - SIMPLE JOBS	Quote	$103.90	$103.90
Connection Services	Reconnections/Disconnections	Reconnections / Disconnections	Disconnections (Meter Box) - Includes Reconnection	Fee	$193.29	$75.71
Connection Services	Reconnections/Disconnections	Reconnections / Disconnections	Disconnections (Meter Load Tail) - Includes Reconnection	Fee	$295.01	$286.17
Connection Services	Reconnections/Disconnections	Reconnections / Disconnections	Disconnections (Pole Top / Pillar Box) - Includes Reconnection	Fee	$487.59	$472.98
Connection Services	Reconnections/Disconnections	Reconnections / Disconnections	Disconnections /Reconnections (Site Visit)	Fee	$64.18	$64.18
Connection Services	Reconnections/Disconnections	Reconnections / Disconnections	Disconnections at Pole Top / Pillar Box - Site Visit	Fee	$222.52	$202.90
Connection Services	Reconnections/Disconnections	Reconnections / Disconnections	Reconnection outside Normal business hours	Fee	$72.48	$72.48
Connection Services	Reconnections/Disconnections	Rectification Works	Rectification of illegal connections	Fee	$624.37	$605.66
Metering Services	Customer requested provision of additional metering/consumption data	Customer Data Request	Customer Data Request	Fee	$18.52	$17.46
Metering Services	Distributor arranged outage for purposes of replacing meter	No access	No access	Fee	$182.07	$177.39
Metering Services	Distributor arranged outage for purposes of replacing meter	Other party fails to arrive.	Other party fails to arrive.	Fee	$416.20	$404.51
Metering Services	Distributor arranged outage for purposes of replacing meter	Isolation completed	Outage Arrangements	Fee	$611.32	$593.78

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
Metering Services	Emergency maintenance of failed metering equipment not owned by the distributor (contestable meters)	Emergency Maintenance	In hours	Quote	$178.14	$157.11
Metering Services	Emergency maintenance of failed metering equipment not owned by the distributor (contestable meters)	Emergency Maintenance (After hours)	After hours	Quote	$311.74	$274.94
Metering Services	Meter recovery and disposal − type 5 and 6 (legacy meters)	CT Meter Removal & Disposal	CT Meter Removal & Disposal	Fee	$177.81	$171.91
Metering Services	Meter recovery and disposal − type 5 and 6 (legacy meters)	WC Meter Disposal	WC Meter Disposal	Fee	$177.81	$171.91
Metering Services	Special meter reading and testing (legacy meters)	Meter Test Fee	Meter Test Fee - Per Request	Fee	$468.27	$454.24
Metering Services	Special meter reading and testing (legacy meters)	Meter Test Fee	Meter Test Fee - Site Visit	Fee	$117.07	$113.56
Metering Services	Special meter reading and testing (legacy meters)	Move in move out meter reads	Move in meter reads	Fee	$39.02	$37.85
Metering Services	Special meter reading and testing (legacy meters)	Move in move out meter reads	Move out meter reads	Fee	$39.02	$37.85
Metering Services	Special meter reading and testing (legacy meters)	Special Meter Reads	Special Meter Reads	Fee	$39.02	$37.85
Metering Services	Special meter reading and testing (legacy meters)	Special Meter Reads	Special Meter Reads - Site Visit	Fee	$31.22	$30.28
Metering Services	Special meter reading and testing (legacy meters)	Type 5-7 Non Standard Meter data Services	Type 5-7 Non Standard Meter data Services	Fee	$18.52	$17.46
Metering Services	Distributor arranged outage for purposes of replacing meter	Notification Only	Notification Only	Fee	$299.13	$290.95
Ancillary Services	Site establishment services	Site Establishment Fee	Error correction due to incorrect information received from Retailers or Metering	Fee	$119.82	$119.82

Grouping 1	Grouping 2	Grouping 3	Grouping 4	Tariff Type	Endeavour 's proposed 2019–20 price	AER draft decision
			Providers (Site Visit)			
Ancillary Services	Site establishment services	Site Establishment Fee	NMI Extinction	Fee	$29.95	$29.95
Ancillary Services	Emergency maintenance of failed metering equipment not owned by the distributor (contestable meters)	Metering Investigation services	Metering Investigation services	Fee	$237.60	$230.59
Connection Services	Reconnections/Disconnections	Reconnections / Disconnections	Reconnection of already connected site	Fee	$129.23	$129.23
Connection Services	Reconnections/Disconnections	Reconnections / Disconnections	Disconnections (Meter Load Tail) -Site Visit ONLY	Fee	$234.14	$227.12
Ancillary Services	Cable spike	Cable ID & Spike	Cable ID & Spike	Fee	$712.54	$628.44
Ancillary Services	Attendance at customers' premises to perform a statutory right where access is prevented.	Security escort	Organising and providing a security escort where we have determined it necessary to ensure the safety of staff.	Quote	$103.90	$103.90

* Marsden Jacob recommended price for this service is understated due to the increase in labour time for labour rate 13 when correcting the labour rate.

Source: Endeavour Energy, *Fee and Quoted Services Pricing Model;* AER Analysis.

Table 15-6 New services introduced by Endeavour for 2019–24

Grouping 1	Grouping 2	Grouping 3	Grouping 4
Ancillary Services	Customer initiated asset relocations	Customer initiated Asset Relocations - network safety	Customer initiated Asset Relocations - network safety
Ancillary Services	Inspection services − Private electrical installations and accredited service providers (ASPs)	Private inspection	Private inspection of privately owned low voltage or high voltage network infrastructure (i.e. privately owned distribution infrastructure before the meter).
Ancillary Services	Network safety services	De-energisation safety services	de-energising wires for safe approach (e.g. for tree pruning)
Ancillary Services	Planned Interruption – Customer requested	Planned interruption - customer requested	Planned interruption - customer requested
Ancillary Services	Provision of training to third parties for network related access	Training services to ASPs	Training services to ASPs
Ancillary Services	Rectification works to maintain network safety	Vegetation defect management	Vegetation defect management
Ancillary Services	Site establishment services	Site Establishment Fee	Error correction due to incorrect information received from

Grouping 1	Grouping 2	Grouping 3	Grouping 4
			Retailers or Metering Providers (no Site Visit)
Ancillary Services	Site establishment services	Site Establishment Fee	Non market Site Establishment
Ancillary Services	Site establishment services	Site Establishment Fee	Site Establishment - Per NMI
Ancillary Services	Site establishment services	Site Establishment Fee	Site Establishment assessment that does not result in the allocation of a NMI.
Connection Services	Augmentations	D. Design and build costs (of shared network) beyond distributor standards	D. Design and build costs (of shared network) beyond distributor standards
Connection Services	Premises Connection Assets	C. Part design and build costs beyond distributor standards	C. Part design and build costs beyond distributor standards
Metering Services	Customer requested provision of additional metering/consumption data	Customer Data Request	Customer Data Request
Metering Services	Distributor arranged outage for purposes of replacing meter	No access	No access
Metering Services	Distributor arranged outage for purposes of replacing meter	Other party fails to arrive.	Other party fails to arrive.
Metering Services	Distributor arranged outage for purposes of replacing meter	Isolation completed	Outage Arrangements
Metering Services	Emergency maintenance of failed metering equipment not owned by the distributor (contestable meters)	Emergency Maintenance	In hours
Metering Services	Emergency maintenance of failed metering equipment not owned by the distributor (contestable meters)	Emergency Maintenance (After hours)	After hours
Metering Services	Meter recovery and disposal − type 5 and 6 (legacy meters)	CT Meter Removal & Disposal	CT Meter Removal & Disposal
Metering Services	Meter recovery and disposal − type 5 and 6 (legacy meters)	WC Meter Disposal	WC Meter Disposal
Metering Services	Special meter reading and testing (legacy meters)	Meter Test Fee	Meter Test Fee - Site Visit
Metering Services	Distributor arranged outage for purposes of replacing meter	Notification Only	Notification Only
Ancillary Services	Site establishment services	Site Establishment Fee	Error correction due to incorrect information received from Retailers or Metering Providers (Site Visit)
Ancillary Services	Site establishment services	Site Establishment Fee	NMI Extinction
Ancillary Services	Emergency maintenance of failed metering equipment not owned by the distributor (contestable meters)	Metering Investigation services	Metering Investigation services

Grouping 1	Grouping 2	Grouping 3	Grouping 4
Connection Services	Reconnections/Disconnections	Reconnections / Disconnections	Reconnection of already connected site
Connection Services	Reconnections/Disconnections	Reconnections / Disconnections	Disconnections (Meter Load Tail) -Site Visit ONLY
Ancillary Services	Cable spike	Cable ID & Spike	Cable ID & Spike
Ancillary Services	Attendance at customers' premises to perform a statutory right where access is prevented.	Security escort	Organising and providing a security escort where we have determined it necessary to ensure the safety of staff.

Source: Endeavour Energy, *Response to information request #028 - Information request #028 - Alternative Control Services - Fee and Quoted Services Pricing Model - 20180809 - PUBLIC*, August 2018.

Table 15-7 Quoted service ancillary network services hourly labour rates for 2019–20, draft decision ($2019–20)

Endeavour labour category and description		AER labour category[1]	AER draft decision - maximum total hourly rate (base plus on-costs plus overheads)
1	Admin	Admin	$103.90
2	Technical	Technical Specialist	$157.11
3	Engineer	Engineer	$196.39
4	Field Worker	Field Worker	$151.41
5	Senior Engineer	Senior Engineer	$216.02
6	Traffic Controllers & Supervisors - External Contractors	N/A	$90.56
7	Operations Manager	Engineer	$196.39
8	Engineering Officer / Project Manager	Engineer	$191.71
9	EFM	Field Worker	$127.73
10	All staff involved in disconnections / reconnections (Meter Box)	Field Worker	$151.41
11	All staff involved in disconnections / reconnections (Site Visit)	N/A	$64.18
12	All staff involved in disconnections / reconnections (Meter Box)	N/A	$72.48
13	R4 - Field Worker	Field Worker	$151.41
14	R1 - Admin	Admin	$104.74
15	R2 - Technical Specialist	Technical Specialist	$157.11

Endeavour labour category and description		AER labour category[1]	AER draft decision - maximum total hourly rate (base plus on-costs plus overheads)
16	R3 - Engineer	Engineer	$196.39
17	R4 - Field Worker	Field Worker	$151.41
18	Blended (69% R2 Tech & 31% R4 Field Worker)	Blended 69% Technical Specialist and 31% Field Worker	$155.34

Source: Endeavour Energy, *Fee and Quoted Services Pricing Model*; Endeavour Energy, Response to information request #030 ACS - Fee and Quoted Services Pricing Model changes and labour rates; security lighting - 20180822 - PUBLIC, August 2018; AER analysis

[1] AER labour categories are based on Marsden Jacob recommendations.

Table 15-8 Fee-based services - security lighting, $2019–20

	Short-term		Long-term	
Light size	**Monthly charge**	**Installation Charge**	**Monthly charge**	**Installation charge**
Minor	$48.77	$712.46	$48.77	$300.00
Small	$63.07	$1,059.08	$63.08	$300.00
Medium	$69.44	$1,056.68	$69.45	$300.00
Large	$80.82	$1,075.12	$80.82	$300.00
X-Large	$132.77	$1,246.81	$132.77	$300.00

Source: Endeavour Energy, NightWatch Model (Short Term) - Public and Nightwatch Model (Long Term) - Public.

Note: While Endeavour requested that we approve GST-inclusive prices the charges above are GST-exclusive to maintain consistency with the presentation of other prices.

Table 15-9 AER draft decision on X factors for each year of the 2020–24 regulatory control period for Ancillary Network Services (per cent)

	2020–21	2021–22	2022–23	2023–24
X factor	-0.75%	-1.16%	-1.29%	-1.09%

Source: AER analysis.

Note: To be clear, labour escalators themselves are positive for each year of the regulatory control period. However, the labour escalators in this table are operating as defacto X factors. Therefore, they are negative.

B Public lighting services charges

Table 15-10 AER draft decision on public lighting charges for each year of the 2020–24 regulatory control period[52]

Tariff Class 1 ($2019–20)	Proposed	Draft Decision
Asset		
1 x 20 W Fluorescent	47.06	47.11
2 x 20 W Fluorescent	49.48	49.56
2 x 14 W Fluorescent	56.45	56.23
2 x 24 W Fluorescent	51.49	51.50
1 x 40 W Fluorescent	49.65	49.71
2 x 40 W Fluorescent	52.89	52.97
1 x 42 W Fluorescent	48.05	48.13
50W Mercury	49.66	49.74
80W Mercury	46.95	47.03
125W Mercury	47.25	47.34
250W Mercury	47.36	47.45
2 x 250W Mercury	92.85	92.50
400 W Mercury	47.32	47.42
50W Sodium	58.93	58.94
70W Sodium	52.76	52.82
90W Sodium	55.01	55.10
100W Sodium	56.99	57.00
120W Sodium	52.29	52.36
150W Sodium	54.00	54.19
250W Sodium	60.36	60.48
2 x 250W Sodium	77.95	78.05

[52] For our draft decision, the revised WACC seems to cause a marginal price increase in the first year for public lighting prices on Tariff 1 and Tariff 2 compared to the prices proposed by Endeavour. However it is important to note that the customers will still witness a price reduction in the first year as Endeavour had proposed an overall of 7-8 per cent price reduction. Moreover our final determination will again revise the WACC figure to that applied to standard control services.

Tariff Class 1 ($2019–20)	Proposed	Draft Decision
310W Sodium	59.79	59.88
400 W Sodium	53.52	53.53
2 x 400 W Sodium	68.73	68.63
4 x 600W Sodium	83.40	83.53
60 W Incandescent	63.49	63.59
1500 W Incandescent	63.49	63.59
100 W Metal Halide	78.46	78.77
150 W Metal Halide	122.31	121.11
250 W Metal Halide	72.16	71.85
2 x 250 W Metal Halide	131.86	130.04
400 W Metal Halide	63.52	63.25
2 x 400 W Metal Halide	177.83	174.21
1000 W Metal Halide	59.28	59.39
600 W Sodium	78.98	79.66
Pole mounting bracket minor (<=3m)	13.69	13.71
Pole mounting bracket major (>3m)	13.76	13.79
Outreach Minor (<=2m)	14.53	14.35
Outreach Major (>2m)	14.53	14.36
Minor Column (<=9)	23.96	24.17
Major Column (>=9)	106.23	108.82

Tariff Class 2 ($2019–20)		
Asset	**Proposed**	**Draft Decision**
1 x 20 W Fluorescent	46.35	46.42
2 x 20 W Fluorescent	49.48	49.56
2 x 14 W Fluorescent	46.35	46.42
2 x 24 W Fluorescent	46.35	46.42
1 x 40 W Fluorescent	48.05	48.13
2 x 40 W Fluorescent	52.89	52.97
1 x 42 W Fluorescent	48.05	48.13
50W Mercury	49.30	49.37
80W Mercury	46.81	46.88

Tariff Class 2 ($2019–20)		
125W Mercury	46.81	46.88
250W Mercury	46.81	46.88
2 x 250W Mercury	50.40	50.48
400 W Mercury	46.81	46.88
50W Sodium	51.44	51.52
70W Sodium	51.44	51.52
90W Sodium	55.01	55.10
100W Sodium	55.01	55.10
120W Sodium	51.28	51.36
150W Sodium	51.28	51.36
250W Sodium	59.79	59.88
2 x 250W Sodium	76.36	76.48
310W Sodium	59.79	59.88
400 W Sodium	53.26	53.34
2 x 400 W Sodium	63.31	63.40
4 x 600W Sodium	83.40	83.53
60 W Incandescent	63.49	63.59
1500 W Incandescent	63.49	63.59
100 W Metal Halide	72.83	72.94
150 W Metal Halide	63.49	63.59
250 W Metal Halide	61.08	61.17
2 x 250 W Metal Halide	78.94	79.06
400 W Metal Halide	59.81	59.90
2 x 400 W Metal Halide	76.40	76.51
1000 W Metal Halide	59.81	59.90
600 W Sodium	53.26	53.34
Pole mounting bracket minor (<=3m)	13.65	13.68
Pole mounting bracket major (>3m)	13.65	13.68
Outreach Minor (<=2m)	13.65	13.68
Outreach Major (>2m)	13.65	13.68
Minor Column (<=9)	17.83	17.86
Major Column (>=9)	17.83	17.86

Tariff Class 3		
Asset ($2019–20)	**Proposed**	**Draft Decision**
2x14W Energy Efficient Fluoro - STD	85.68	76.54
2x24W Energy Efficient Fluoro - STD	88.41	78.94
1x42W Compact Fluorescent - STD	83.14	74.37
50W Mercury - STANDARD	80.82	72.36
80W Mercury - STANDARD	80.96	72.42
70W Sodium - STANDARD	86.44	77.35
100W Sodium - STANDARD	96.68	86.45
100W Metal Halide - STANDARD	118.06	105.71
25W LED	92.46	69.85
Suburban 70W HPS c/w D2 PECB - STD	86.44	77.35
150W Sodium - STANDARD	91.26	81.59
150W Metal Halide - STANDARD	105.92	94.79
250W Sodium - STANDARD	102.72	91.88
250W Metal Halide - STANDARD	104.26	93.27
400W Sodium - STANDARD	101.45	90.59
80W Mercury - AEROSCREEN	108.76	97.52
Urban A/Screen 42W CFL c/w D2 PECB	90.78	81.07
150W Sodium - AEROSCREEN	94.87	84.76
150W Metal Halide - AEROSCREEN	109.53	97.96
250W Sodium (w/o PECB) - AEROSCREEN	104.26	93.23
250W Metal Halide - AEROSCREEN	105.81	94.63
400W Sodium - AEROSCREEN	100.46	89.71
400W Metal Halide - AEROSCREEN	108.31	96.79
Roadster A/Screen 100W HPS c/w PECB	96.68	86.45
80W Mercury - POST TOP	103.71	92.39
250W Sodium - FLOODLIGHT	119.72	106.80
250W Metal Halide - FLOODLIGHT	121.26	108.20
400W Sodium - FLOODLIGHT	113.91	101.52

Tariff Class 3		
400W Metal Halide - FLOODLIGHT	121.76	108.60
150W Sodium - FLOODLIGHT	109.07	97.22
150W Metal Halide - FLOODLIGHT	123.72	110.42
Bracket - Minor <=3m	21.33	19.04
Bracket - Major >3m	52.88	46.37
Outreach - Minor <=2m	22.84	20.35
Outreach - Major >2m	30.89	27.33
Pole (Wood) - Minor - DEDICATED SL <=11m	172.60	150.45
Pole (Wood) - Major - DEDICATED SL >11m	303.48	263.99
Column (Steel) - Minor <=9m	177.29	154.50
Column (Steel) - Major >9m	326.31	283.76
17W LED Cat P Luminaire	92.46	69.85
18W LED P4 Gerard	92.46	69.85
25W LED P4 Gerard	92.46	69.85
33W LED	101.40	75.29
42W LED	96.94	72.58
82W LED Gerard V5 Cat Luminaire	128.09	91.54
100W LED Gerard V4 Cat Luminaire	128.09	91.54
198W LED Gerard V2/V3 Cat Luminaire	142.40	100.26

Tariff Class 4		
Asset ($2019–20)	**Proposed**	**Draft Decision**
2x14W Energy Efficient Fluoro - STD	56.16	50.55
2x24W Energy Efficient Fluoro - STD	56.52	50.85
1x42W Compact Fluorescent - STD	57.49	51.77
50W Mercury - STANDARD	58.40	52.61
80W Mercury - STANDARD	56.00	50.43
70W Sodium - STANDARD	61.21	55.13
100W Sodium - STANDARD	66.01	59.43
100W Metal Halide - STANDARD	86.10	77.57
25W LED	50.26	45.15

Tariff Class 4		
Suburban 70W HPS c/w D2 PECB - STD	61.21	55.13
150W Sodium - STANDARD	61.68	55.53
150W Metal Halide - STANDARD	75.45	67.96
250W Sodium - STANDARD	71.44	64.33
250W Metal Halide - STANDARD	72.89	65.64
400W Sodium - STANDARD	64.93	58.42
80W Mercury - AEROSCREEN	83.80	75.53
Urban A/Screen 42W CFL c/w D2 PECB	58.48	52.62
150W Sodium - AEROSCREEN	62.15	55.93
150W Metal Halide - AEROSCREEN	75.92	68.36
250W Sodium (w/o PECB) - AEROSCREEN	71.64	64.50
250W Metal Halide - AEROSCREEN	73.09	65.81
400W Sodium - AEROSCREEN	64.80	58.31
400W Metal Halide - AEROSCREEN	72.18	64.97
Roadster A/Screen 100W HPS c/w PECB	66.01	59.43
80W Mercury - POST TOP	58.95	52.97
B2001 42WCFL c/w D2 PECB green - PT	60.92	54.72
250W Sodium - FLOODLIGHT	73.64	66.23
250W Metal Halide - FLOODLIGHT	75.09	67.54
400W Sodium - FLOODLIGHT	66.54	59.81
400W Metal Halide - FLOODLIGHT	73.92	66.47
150W Sodium - FLOODLIGHT	63.99	57.52
150W Metal Halide - FLOODLIGHT	77.76	69.95
Bracket - Minor <=3m	16.33	14.70
Bracket - Major >3m	21.92	19.48
Outreach - Minor <=2m	16.60	14.92
Outreach - Major >2m	18.03	16.15
Pole (Wood) - Minor - DEDICATED SL <=11m	46.99	41.18
Pole (Wood) - Major - DEDICATED SL	70.20	61.06

Tariff Class 4		
>11m		
Column (Steel) - Minor <=9m	30.84	27.33
Column (Steel) - Major >9m	35.13	31.02
17W LED Cat P Luminaire	50.26	45.15
18W LED P4 Gerard	50.26	45.15
25W LED P4 Gerard	50.26	45.15
33W LED	51.08	45.84
42W LED	50.67	45.49
82W LED Gerard V5 Cat Luminaire	53.53	47.91
100W LED Gerard V4 Cat Luminaire	53.53	47.91
198W LED Gerard V2/V3 Cat Luminaire	54.84	49.02

C Metering services charges

Table 15-11 Metering X factors for 2019–24, AER draft decision

Period	2019–20	2020–21	2021–22	2022–23	2023–24
Metering x factor	n/a	-2.12%	-2.12%	-2.12%	-2.12%

Note: We do not apply an X factor for 2019–20 because we set the 2019–20 metering charges in this decision.

Table 15-12 Annual metering charges for 2019–24 ($nominal), AER draft decision

Tariff Class	Non Capital	Capital	Total
Residential Anytime	17.69	1.92	19.61
Residential TOU - Type 6 Meter	38.59	1.92	40.51
Residential TOU - Type 5 Meter	161.78	1.92	163.7
Small Business Anytime	26.81	1.92	28.73
Small Business TOU - Type 6 Meter	65.93	1.92	67.85
Small Business TOU - Type 5 Meter	189.13	1.92	191.05
Controlled Load	4.50	1.92	6.42
Solar	4.50	1.92	6.42