Final Decision

Essential Energy Electricity Distribution Determination 2024 to 2029

(1 July 2024 to 30 June 2029)

Attachment 16

Alternative control services

June 2024

AUSTRALIAN ENERGY REGULATOR

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1	30 April 2024	51
2 – public lighting prices	17 June 2024	35-46

List of attachments

This attachment forms part of the AER's final decision on the distribution determination that will apply to Essential Energy for the 2024–29 period. It should be read with all other parts of the final decision.

As a number of issues were settled at the draft decision stage or required only minor updates, we have not prepared all attachments. The final decision attachments have been numbered consistently with the equivalent attachments to our draft decision. In these circumstances, our draft decision reasons form part of this final decision.

The final decision includes the following documents:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 4 – Regulatory depreciation

Attachment 7 – Corporate income tax

Attachment 13 – Classification of services

Attachment 14 – Control mechanisms

Attachment 16 – Alternative control services

Attachment 18 – Connection policy

Attachment 19 – Tariff structure statement

Attachment 20 – Metering services

Attachment A – Contingent projects

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16 Alternative control services

This attachment sets out our final decision on prices Essential Energy is allowed to charge customers for the provision of the following alternative control services: ancillary network services and public lighting. We also make a final decision on metering, which we classify as an alternative control service, in Attachment 20.

Alternative control services are customer specific or customer requested services and so the full cost of the service is attributed to a particular customer, or group of customers, benefiting from the service.

We set service specific prices to provide a reasonable opportunity to 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.

16.1 Ancillary network services

Ancillary network services are non-routine services provided to individual customers as requested. Our F&A paper outlines several types of services that meet this broad definition.[1]

Ancillary network services are charged to customers on a user-pays approach which are charged on either a fee or quotation basis, depending on the nature of the service.

We determine price caps for fee-based services for the 2024–29 period as part of our determination, based on the cost inputs and the average time taken to perform each service. These services tend to be homogenous in nature and scope and can be costed in advance of supply with reasonable certainty, such as disconnections and special meter reads.

By comparison, prices for quoted services are based on the quantities of labour and materials required, 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's service request.

For this reason, it is not possible to list prices for quoted services in our decision. However, our final decision sets the maximum labour rates to be applied to quoted services.

16.1.1 Final decision

16.1.1.1 Fee-based and quoted services

Fee-based and quoted services

[1] See AER, *Final framework and approach for Ausgrid, Endeavour Energy and Essential Energy for the 2024-29 regulatory control period,* July 2022, pp. 5–6. Our F&A paper outlines several types of services that can be considered as meeting this broad definition such as network ancillary services, basic connection services and non-routine metering services.

Our final decision does not accept Essential Energy's revised proposal as submitted. Based on our analysis and updated inputs, our final decision is to:

- not accept Essential Energy's proposed changes to its:
  - after hours labour rates, as we already accepted Essential Energy's initial proposal rates in the draft decision.
  - special meter test service, specifically the proposed:
    - increase in Admin labour hours from 0.25 hours to 1.17 hours
    - introduction of Technical Specialists – Indoor hours of 1.17 hours
- accept Essential Energy's:
  - materials on-cost rate of 12.45% for materials-based services.
  - other proposed changes to various services (see section 16.1.4.2)
- substitute Essential Energy's proposed year one (2024–25) prices for fee-based services with our final decision price caps for 2024–25 (see section 16.1.4.2 and appendix A).
- substitute Essential Energy's proposed X factors with our final decision labour price growth forecasts.

16.1.1.2 X factors for ancillary network services

As ancillary network services have a high share of labour and labour-related inputs, we use labour price growth forecasts as the ancillary network services X factor. Consistent with our previous decisions, we derived the X factor by averaging wage price index growth forecasts from KPMG (provided by the AER) and BIS Oxford Economics (provided by the distributor).[2] We have updated the labour price growth forecasts for our final decision to include the most recent forecasts. Our final decision X factors for ancillary network services are set out in Table A.1 in appendix A of this attachment.

16.1.1.3 Form of control for ancillary network services

Our final decision is to maintain our final F&A position to apply price caps to ancillary network services as the form of control.

Under a price cap form of control, we set a schedule of price caps for fee-based services and maximum labour rates for quoted services for the first year of the period, 2024–25. For all subsequent years of the 2024–29 period, prices will be adjusted by the applicable control mechanism formula set out in Attachment 14. This mechanism adjusts price caps and maximum labour rates annually for inflation, an X factor[3], and any relevant adjustments.

16.1.2 Essential Energy's revised proposal

As we set out below, Essential Energy proposed numerous changes to its labour rate and fee-based services from our draft decision.

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2 For more detail on the reasons for this decision, see the discussion in section 6.4.2 of Attachment 6 – Operating expenditure.

3 Under the CPI–X framework, the X factor measures the real rate of change in prices from one year to the next. For ancillary network services, the X factor is the wage price growth given that labour is the primary cost input for providing these services.

Appendix A contains Essential Energy's proposed labour rates for business hours and after hours and prices for fee based services.[4]

16.1.2.1 Draft decision areas of acceptance

Essential Energy accepted our draft decision on the following issues:

- our draft decision to substitute our on-cost rate of 50.94% and benchmark overhead rate of 61%.
- our draft decision to adjust Essential Energy's fleet charge to $23.87.
- our draft decision to substitute the hourly labour rates with our benchmark rate for:
  - R1 – Admin (business hours)
  - R2a – Technical Specialist – Indoor (business hours)
  - R2b – Technical Specialist – Outdoor (business hours)
  - R3c – Engineering Manager (business hours)
  - R4 – Field Worker (business hours)

16.1.2.2 Draft decision areas of dispute

Essential Energy did not agree with our draft decision on several issues and proposed the following:[5]

- apply a 1.75x after hour factor to calculate its after-hours labour rates for all labour categories.
- maintain its position on the additional hours for its special meter test price increases.
- continue to apply its material on-costs of 12.45% for material-based services. Essential Energy stated these on-costs are calculated based on its procurement and logistics expense, which we approved in the 2019–24 period.

16.1.2.3 Other changes in the revised proposal

Essential Energy proposed additional changes to its fee-based services and quoted services:[6]

- proposed five new fee-based services and one quoted service for its access permit connection fees. This is part of Essential Energy's restructure of its access permit service.
- proposed introducing five LED floodlight categories as fee-based services. Essential Energy stated that it differentiates LED's by categories, rather than wattage, because as

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4 The labour rates in Table A.3 are specifically for quoted services, though they are consistent with the labour rates for fee-based services. The difference is that "base" labour rates and on-costs are the explicit labour input for fee-based services, with overheads being calculated at a later stage based on total direct costs (labour, materials and so on).

5 Essential Energy, *10.01 ANS Model Response,* November 2023, pp. 4-6.

6 Essential Energy, *10.01 ANS Model Response,* November 2023, pp. 4-6.

lighting becomes more efficient it does not need to change the fee structure which also provides more certainty for customers.

- for its Minor Capital Works, Essential Energy proposed changing its service offering from a fee-based service to a quoted service in response to our draft decision and further engagement with Southern Lights.[7]
- proposed to reduce the overheads rate from 61% to 5.98% (excluding material on-costs) for its warning markers purchase price. Essential Energy also proposed removing the labour costs for its tiger tail hire and warning marker hire costs to support public safety.
- proposed to introduce the 'Provision of metering or consumption data for requests – bulk data request' as a quoted service. Essential Energy stated it is permitted to do so under Rule 86A of the National Energy Retail Rules.[8]
- proposed to introduce an 'Underground LV Cable' service to replace its 'Underground/Overhead Distribution Mains Testing and Commissioning' service.

Essential Energy also identified some minor errors in its ANS Pricing schedule and prices for its security lighting services fee-based services. Essential Energy submitted a corrected version of its revised ANS model and ANS Pricing Schedule on 14 March 2024.

16.1.3 Assessment approach

The regulatory framework for assessing alternative control services is less prescriptive than for standard control services. That is, there is no requirement to apply the building block model exactly as prescribed in Part C of the National Electricity Rules (NER).

On this basis, our approach involves an assessment of the efficient costs of providing ancillary network services. Labour costs are the major input in the cost build-up of prices for ancillary network services. Therefore, our assessment focuses on comparing Essential Energy's proposed labour rates against maximum total labour rates, which we consider efficient.

Where Essential Energy's proposed labour rates exceed our maximum efficient labour rates, we apply our maximum efficient labour rates to determine prices. We follow this assessment process for services provided on a fee or quotation basis.

We also considered relevant stakeholder feedback raised throughout the consultation process and benchmarked Essential Energy's proposed ancillary network services prices against its prices for the 2019–24 period and the prices of other distributors. We will also make further adjustments to Essential Energy's ancillary network services prices where we consider it appropriate to do so.

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7 Essential Energy, *10.01 ANS Model Response,* November 2023, p. 3.

8 Essential Energy, *10.01 ANS Model Response,* November 2023, p. 5.

16.1.4 Reasons for final decision

16.1.4.1 Discussion of issues Essential Energy did not accept in our draft decision

Proposed after hours labour rates approach

We do not accept Essential Energy's proposal to adjust its after hours labour rate as we already accepted its initial proposal after hour labour rates in our draft decision.

In our draft decision, we accepted Essential Energy's proposed after hour rates as they were below our maximum labour rate which we considered are efficient.

In its revised proposal, Essential Energy proposed to apply a 1.75 overtime factor to the business time rate to determine its after hours labour rates, based on our methodology to calculate maximum benchmark after hours rates.[9] Essential Energy noted that AER does this in developing its maximum benchmark after hours rates. Essential Energy did not provide any further reasons why it decided to deviate from its previously proposed after hours labour rates in its revised proposal. This markup resulted in an average increase of 33% from our approved draft decision rates. We also observe an average increase of 18% in after hour fee-based services from our draft decision prices.

While the proposed approach is consistent with our approach to develop maximum benchmark rates, we do not consider Essential Energy's proposed increase in its after hours labour rate is reasonable. We consider the initial proposal labour rates that are below our maximum benchmark rates are already Essential Energy's best estimates for its cost inputs for the 2024–29 period.

Additionally, where the AER accepts a distributor's initial proposal, it is not the intention of the regulatory framework for a distributor to come back in its revised proposal with rates that reflect an assessment tool (rather than rates that reflect its best estimates of its own costs. As noted in clause 6.10.3(b) of the National Electricity Rules:

a) A DNSP may only make revisions in a revised regulatory proposal… to incorporate the substance of any changes required to address matters raised by the draft decision or the AER reasons for it.

Therefore, we consider it outside the requirements in the NER for Essential Energy to propose a different methodology to calculate its after hours labour rates in their revised proposal, just because the after hour labour rates we accepted in our draft decision were lower than the benchmark.

For our final decision, we do not accept Essential Energy's proposed after hour labour rates and substitute in the approved labour rates in our draft decision. We adjust these draft decision rates for our final decision on inflation and apply labour escalators to set prices in $2024–25.

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9 Essential Energy, *10.01 ANS Model Response,* November 2023, p. 6.

Essential Energy's assumptions for special meter tests

We do not accept all of Essential Energy's assumptions for its special meter tests.[10] We do not consider Essential Energy's proposed assumptions justifies the increase in labour hours. Our final decision on Essential Energy's special meter tests is to:

- accept the increase in hours for the Technical Specialists – Outdoor to 4.33 hours
- not accept the increase of Administration hours to 1.17 hours. Our final decision is to reduce the Administration hours to 0.25 hours, as per our draft decision.
- not accept the inclusion of Technical Specialists – Indoor of 1.17 hours. Our final decision is to remove this labour category from this fee, as per our draft decision.

In our draft decision, we did not accept Essential Energy's assumptions for its special meter tests (including the additional meter test and the Current Transformer (CT) meter test). We summarise Essential Energy's assumptions and our reasons for not accepting in the draft decision in Table 16.1.

Table 16.1 Summary of cost assumptions and our draft decision for Essential Energy's special meter test

Labour category	Proposed increase (initial proposal)	Essential Energy's explanation	AER's draft decision
Administration	Increased labour hours from 0.25 hours to 1.17 hours	Extra hours to prepare work order in metering database, organising outage request, notify customer, manage work order completion and correspond with retailer.	Did not accept. Other distributors allocated only 15 minutes of administration time to complete service. It was not clear to us how these tasks would take 1.17 hours.
Technical Specialists – Indoor[11]	Introduced new labour category at 1.17 hours to service	Extra hours to review, calibrate and certify each test result as part of Power of Choice and AEMO's service level procedure.	Did not accept. AEMO's service level procedure does not explicitly say anything about calibrating test equipment after every test. Other distributors also did not propose extra time associated with Power of Choice.

10 '26.3 Special meter test - 1st' fee-based service, '26.4 Special meter tests – additional' and '26.5 Special meter tests - CT meter' services.

11 Essential Energy previously allocated these hours to the Engineer labour category but reclassified the hours to its Technical Specialists – Indoor category in its response to *Information Request IR045 – ANS Follow up questions to IR#028*.

Labour category	Proposed increase (initial proposal)	Essential Energy's explanation	AER's draft decision
Technical Specialist – Outdoor	Increased hours from 3.4 hours to 4.33 hours	The previous 1 hour travel time did not adequately recover travel costs. Proposed 2 hours travel time.	Did not accept. Essential Energy did not provide sufficient evidence to justify extra travel time. We required more robust data to justify the increased in travel time.

Source: AER, Attachment 16 Alternative Control Services – Essential Energy distribution determination 2024–29 Draft decision, Sept 2023 pp.10-11.

In its revised proposal, Essential Energy maintained its position on the additional labour hours. Our final decision for each labour category is set out below.

Increased hours for administration staff

We do not accept Essential Energy's proposed increase in administration time.

Essential Energy stated the extra administration time is required to prepare the work order in its metering database, organising outage requests, notify customers, complete the work order and correspond with retailer.[12] Administration staff also provide support to the outdoor Technical Specialists at the time of testing.[13]

However, we consider the listed administration tasks are common among distributors and not unique to Power of Choice and AEMO service requirements. Other distributors have allocated 15 minutes at most for its administration staff to perform its duties for the special meter test service.

Proposed hours for indoor Technical Specialists

We do not accept Essential Energy's proposed indoor Technical Specialist hours.

Essential Energy stated the indoor Technical Specialist would review and certify test results for each meter test. Essential Energy stated this is part of its requirement to maintain National Association of Testing Authorities (NATA) to ISO 9001 & ISO/IEC 17025 as per AEMO Service Level Procedure version 1.6 clause 3.3 and clause 6.5.[14]

Our analysis shows that the AEMO Service Level Procedures version 1.6 standards are related to quality management systems (clause 6.5) and competence of testing and calibration laboratories (clause 3.3) in general and not specific to electricity meter testing. We

12 Essential Energy, *information request ESS IR#045 – ANS Follow up questions to IR#028*, received 8 August 2023.

13 Essential Energy, *10.01 ANS Model Response,* November 2023, p. 5.

14 Essential Energy, *information request ESS IR#045 – ANS Follow up questions to IR#028*, received 8 August 2023.

do not consider the application of these standards in this specific context justifies that a Technical Specialist must analyse the test result each time a special meter test is performed.

Additionally, while a Technical Specialist (indoor or outdoor) would normally review the meter test results, we consider that this would not be a time intensive activity.

Essential Energy also stated it is the only meter provider that does not have a contestable meter arm and therefore are disproportionally impacted by Power of Choice compared to other distributors. However, we also note the Power of Choice and the AEMO Service Level Procedure version 1.6 was introduced prior to the current 2019–24 period. Essential Energy did not provide evidence of changes to requirements to justify these additional costs.

Increased hours for outdoor Technical Specialists

We consider Essential Energy's proposed additional travel time for its outdoor Technical Specialists is reasonable.

Essential Energy stated the previous 1 hour of travel time did not adequately recover its costs. Under its current arrangement, Essential Energy allocates its travel time across its customer-initiated tasks and general maintenance tasks to reduce its price impacts to customers.[15]

Essential Energy revised its travel time and noted it incurred an average of 1.7 hours travel time per service in the 2019–24 period, under its current time splitting approach. The actual average travel time is 3.4 hours. Also, the acceleration of the Smart Meter Replacement program will reduce general maintenance tasks and therefore reduce opportunities to split travel time between services. Essential Energy provided its travel log for its special meter test to demonstrate this.[16]

We reviewed the provided travel log for the special meter test and the underlying assumptions and consider this information sufficient to accept the proposed increased in travel time.

Table 16.2 summarises the impact of our final decision for Essential Energy's special meter tests.

15 Essential Energy, *10.01 ANS Model Response, November 2023,* p. 4.

16 Essential Energy, *10.03 - Ancillary Network Services (ANS) - Special Meter Test Travel Log*, November 2023.

Table 16.2 Summary of assumptions for the first special meter test fee-based service

Labour category	AER 2024–29 Draft Decision	Essential Energy Revised Proposal	AER 2024–29 Final Decision
Administration	0.25 hours	1.17 hours	0.25 hours
Technical Specialist – Indoor	-	1.17 hours	-
Technical Specialist - Outdoor	3.4 hours (includes 1 hour travel time)	4.33 hours (includes 2 hours travel time)	4.33 hours (includes 2 hours travel time)

Source: AER analysis, Essential Energy -10.01 ANS Model Response - Nov23 - Public

16.1.4.2 Discussion of Essential Energy's proposed changes not discussed in our draft decision

Essential Energy's assumptions for access permits

We accept Essential Energy's proposed restructure to its access permits service as we consider it is more cost reflective.

In response to our information request, Essential Energy stated it was restructuring its access permit service. It will no longer offer a single access permit service but different permit services based on the complexity of the connection, which will improve cost reflectivity. The access permit fee has also been renamed 'connection fee'.

Essential Energy provided the following revised access permit prices in its revised proposal (see Table 16.3):

Table 16.3 Essential Energy's revised service offering for access permits (now called connection fees)

Service	Prices for Essential Energy's revised access permits	% Variance to Draft Decision Single AP rate $3,510.46	Instance
Live LV	$1,523.77	Decrease 57%	Per connection
Basic: single point isolation	$2,467.80	Decrease 30%	Per connection
Complex: multi point isolation	$4,022.39	Increase 15%	Per connection
Sub-transmission	$6,837.50	Increase 95%	Per connection
Major contestable distribution connection	Hourly rate	N/A	Quoted (per hour)
Rescheduled cancellation	$836.14	Decrease 31% Initial proposal ($1,210.12)	Per connection

Source: AER workings and *Essential Energy -10.01 ANS Model Response - Nov23 - Public*, p.5.

Based on the revised structure, smaller customers would pay a lower price for access permits compared to the current price.

Essential Energy presented its revised fee structure for access permits in its accredited service provider (ASP) forum. It did not receive any adverse feedback on these changes.[17]

We consider Essential Energy's restructure of its access permit is reasonable as it differentiates the labour required for different types of access fees, which we consider more cost reflective than its current service offering. However, we will adjust these prices with our final decision benchmark rates and real wage labour cost escalator.

Materials on-costs factor

We accept Essential Energy's proposed material on-cost factor of 12.45% to its fee-based services as it was inadvertently removed for our draft decision.

Essential Energy stated these on-cost factors are calculated based on its procurement and logistics expense which are excluded from the overhead allocation rate. Essential Energy also mentioned material on-cost rate is part of the 2019–24 AER approved methodology.[18]

This is consistent with the intention in our draft decision, where we inadvertently deleted the material on-cost factor from our draft decision ANS model for Essential Energy. Our final decision reinstates Essential Energy's proposed material on-cost factor of 12.45%.

We also note that the material on-cost factor only applies to Essential Energy's tiger tails, warning markers and security lighting fee based services.

Introduction of nightvision LED floodlights and revised night watch prices

We accept Essential Energy's proposal to introduce its five LED floodlight categories and the underlying assumptions to increase the fee for its night watch services because they are reasonable.

In its revised proposal, Essential Energy proposed introducing new nightvision lights as fee-based services. Essential Energy proposed structuring its nightvision services into five LED categories rather than specific wattage. This is to accommodate for changes in wattages as lighting becomes more efficient without changing the fee structure. This also creates a level of certainty for customers.[19]

Furthermore, Essential Energy proposed separating the capital and operational service fee to provide a reflective price for its customers. Essential Energy stated customers would be potentially paying for capital costs beyond the asset life of a light when the capital and operational service fees were combined.[20]

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17 Essential Energy, *10.01 ANS Model Response, November 2023,* p. 5.

18 Essential Energy, *10.01 ANS Model Response, November 2023,* p. 5.

19 Essential Energy, *10.01 ANS Model Response, November 2023,* p. 5.

20 Essential Energy, *10.01 ANS Model Response, November 2023,* p. 3.

Essential Energy also emphasised there is no change to its service offering for security lighting services, and introducing LED floodlights only provides a replacement product as existing lights are phased out.[21]

Additionally, Essential Energy stated it observed an increase in its average tariff rate.[22] These cost increases are driven by the provider's, Origin Energy's, revised energy and environmental rates, which was agreed in March 2023.[23] Essential Energy must pay Origin Energy for the electricity consumption of the security lights. Origin Energy does not directly charge the end customers for their floodlight's electricity consumption but instead charges Essential Energy for this cost. Therefore, Essential Energy would be paying for customers' energy usage if it does not include these rates in its fees. This is offset by Essential Energy's proposal to remove its capital component as High Pressure Sodium, Metal Halide and Mercury Vapour lamps are replaced with LEDs.[24]

We consider Essential Energy's proposed new LED floodlight fee based services reasonable. Essential Energy's service offering for security lighting has not changed, with the intention to introduce new LED lights with a more rigid fee structure. We also reviewed Origin Energy's revised rates and Essential Energy's calculations and consider its revised prices cost reflective.

Essential Energy's assumptions for minor capital works

We accept Essential Energy's proposal to charge minor capital works as a quoted service rather than a fee-based service. We consider it more cost reflective to charge minor capital works as a quoted service. We also accept Essential Energy's proposal to introduce an upfront fee to recover its labour costs incurred to conduct feasibility assessments for minor capital work requests.

In our draft decision, we did not accept Essential Energy's proposed prices for its public lighting minor capital works, which Essential Energy proposed as fee-based services.

In its submission to Essential Energy's initial proposal, Southern Lights raised concerns on the lack of transparency behind Essential Energy's proposed framework and new fee-based services for minor capital works. They also requested more discussions with Essential Energy.[25] Based on these concerns, we encouraged Essential Energy to further engage stakeholders on minor capital works and revise its underlying assumptions for introducing minor capital works as a fee-based services.

Upon further engagement with Southern Lights and councils, Essential Energy proposed to change the minor capital works from a fee-based to a quoted service in its revised proposal.

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21 Essential Energy, *Information Request IR059 – ANS Security Lighting Services - 20240314*. Received 14 March 2024.

22 In their revised proposal, Essential Energy corrected an error that resulted in a significant reduction to the average tariff rate compared to the initial proposal. Nevertheless, the average tariff rate in the revised proposal is higher than previous rates (Essential Energy, *IR059 ANS Security Lighting Service – Confidential*, received 14 Mar 23).

23 Essential Energy, *10.01 ANS Model Response, November 2023,* p. 3.

24 Essential Energy, *10.01 ANS Model Response, November 2023,* p. 3.

25 Central NSW Joint Organisations, *Southern Lights - 2024-29 Electricity Determination*, May 2023, pp. 8–9.

While councils preferred a fee-based services approach for price certainty, Essential Energy considers a quoted service would be more cost reflective fee for this service and aligns its service offering with other distributors.[26] Essential Energy also provided sample quotes for minor capital works, showing a cost breakdown for different types of minor capital works.[27]

Essential Energy also stated that due to the variation in time to produce a quote, it proposed to introduce an upfront fee to conduct a feasibility assessment of all minor capital works as a quoted service. This upfront cost will also be separate from the final design costs. Essential Energy does not currently charge a separate fee to conduct a feasibility assessment and provide a quote. If the customer does not proceed with the quote, Essential Energy would not be able to recover the labour cost associated with producing the quote under the current arrangement.[28]

We consider Essential Energy's explanation to change minor capital works to a quoted service and introduce an upfront fee for the feasibility assessment is reasonable.

Changes to tiger tails and warning marker fee-based services

We accept Essential Energy's proposed reduction of overheads rate from 61% to 5.98% (excluding material on-costs) for its warning markers purchase price. We also accept Essential Energy's proposal to remove the labour costs for its tiger tail hire and warning marker hire costs.

We agree with Essential Energy that its proposed price reductions would promote public safety as it would incentivise customers to better access safety services.

Introduction of metering or consumption data request quoted service

We accept Essential Energy's proposed introduction of its 'Provision of metering or consumption data for requests – bulk data request' as a quoted service.

We consider Essential Energy is entitled to charge a reasonable fee under Rule 86A of the National Energy Retail Rules only if any of the following conditions are met:[29]

- If the customer directly requests the data more than 4 times in any 12 month period;
- The requested data is in a different manner or form than that specified in the metering data provision procedures; or
- A customer authorised representative requests the data as part of a request for information about more than one customer.

If none of these conditions are met, under Rule 86A paragraph 2, Essential Energy must provide customers their metering and consumption data free of charge upon request.

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26 Essential Energy, *10.01 ANS Model Response, November 2023,* p. 5.

27 Essential Energy, *information request ESS IR#055 Public Lighting – 20240116*, received 16 January 2024.

28 Essential Energy, *information request ESS IR#055 Public Lighting – 20240116*, received 16 January 2024.

29 AEMC, *National Energy Retail Rule*, 2012, clause 3 of Rule 86A, p.72.

Introduction of Underground LV Cable fee

We also accept Essential Energy's proposal to replace the 'Underground/Overhead Distribution Mains' fee-based service with the 'Underground LV Cable' fee, due to the restructure of its access permit service.

Due to the introduction of the Live LV connection fee as part of Essential Energy's proposed restructure of its access permit service (see section 16.1.4.2), Essential Energy considers the ''Underground/Overhead Distribution Mains' service no longer applies to its new access permit fee structure.

16.2 Public lighting services

Public lighting services include the provision, construction and maintenance of public lighting assets.[30] This definition includes new technologies such as energy-efficient light emitting diode (LED) luminaires and emerging public lighting technologies such as smart-enabled luminaires.[31]

The main customers of public lighting services are local government councils and jurisdictional main roads departments.

There are a number of different tariff classes and prices for public lighting services. Factors influencing prices for a particular installation include which party is responsible for capital provision, and which party is responsible for maintaining and/or replacing installations.

16.2.1 Final Decision

Our final decision is to not accept Essential Energy's public lighting proposal. In particular, we do not accept Essential Energy's revised proposal prices for Category V[32] LED lights as we do not consider they reflect efficient costs.[33]

Our analysis shows that Essential Energy's Category V LED lights prices are significantly above those of the other NSW distribution networks – Ausgrid and Endeavour Energy – and other comparable distributors. As detailed in section 16.2.4.1, we have made a top-down efficiency adjustment to the proposed prices based on our benchmarking against those of other comparable distributors.

Our final decision public lighting prices for 2024–25 are set out in appendix B. The prices for Category V LED lights are on average 24% lower than Essential Energy's revised proposal prices.

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30 AER, *Final framework and approach for Ausgrid, Endeavour Energy and Essential Energy for the 2024-29 regulatory control period*, July 2022, p. 34.

31 AER, *Final framework and approach for Ausgrid, Endeavour Energy and Essential Energy for the 2024-29 regulatory control period*, July 2022, pp. 34–35.

32 Category V is the Vehicle Category of LEDs typically comprising of LED's of around 70W and above on main roads and highways. Category P LED's are the Pedestrian category and comprise of lower Wattage LED's on minor roads.

33 Category V LEDs are expected to make up about 20% of the lighting population.

We accept Essential Energy's revised proposal prices for all remaining elements, including Category P[34] LED prices and legacy luminaries as we consider they reflect efficient costs.

For all subsequent years of the 2024–29 period, prices will be adjusted by the applicable control mechanism formula set out in attachment 14. This mechanism adjusts price caps annually for inflation, an X factor, and any relevant adjustments. Our final decision sets this X factor[35] at zero.

16.2.2 Essential Energy's revised proposal

Essential Energy's revised proposal prices for Category P LED lights are 10% lower than its initial proposal and consistent with our draft decision. While the proposed opex prices for medium to high wattage Category V LED lights are 10% lower than its initial proposal, they are on average 20% higher than our draft decision and Category V capex prices are on average 40% higher than our draft decision.[36]

Essential Energy submitted that benchmarking public lighting services across different distributors is challenging due to significant differences in operating environments (for example asset mix, asset density and travel times), customer numbers, different cost allocation methodologies (CAMs) and component pricing approaches, amongst others. It submitted that the AER should not rely on simple price comparisons with assessing the merits of the revised proposal without consideration of these critical differences.[37]

In preparation of its revised proposal, Essential Energy conducted a two-day Public Lighting Forum with Councils in August 2023 to engage customers on its public lighting services. Essential Energy also met with Southern Lights NSW[38] (Southern Lights) four times to discuss the issues it raised in its submission on the proposed public lighting services.[39]

Southern Lights requested that Essential Energy include an additional 1-2% efficiency gain to be applied each year across all services. Essential Energy however considered this would not achieve a fair and reasonable outcome in terms of recovering its costs.[40]

Southern Lights also requested that Essential Energy make a firm commitment to implement and deploy smart lighting technology. Essential Energy stated it will facilitate the adoption of technologies such as smart street lighting by conducting pilots with interested councils. Essential Energy is already working with Bathurst Regional Council in this space. Essential

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34 Category P LEDs are expected to make up about 80% of the lighting population.

35 The prices are determined by a price cap control mechanism that adjusts prices for inflation, an X factor and any relevant adjustments.

36 AER Analysis.

37 Essential Energy, *Att. 10.5 - Public Lighting Explanatory Document*, November 2023, p. 12.

38 Southern Lights is an organisation representing 31 local councils in NSW. There were also submissions from Bathurst Regional Council, Blayney Shire Council, Riverina and Murray Regional Organisation of Councils, Parkes Shire Council and Weddin Shire Council in support of the Southern Lights submission. Local councils and road authorities are the main customers of public lighting services.

39 Essential Energy, *Att. 10.5 - Public Lighting Explanatory Document*, November 2023, p. 3.

40 Essential Energy, *Att. 10.5 - Public Lighting Explanatory Document*, November 2023, p. 3.

Energy noted that it supports a mechanism that enables the introduction of smart streetlighting services in the 2024–29 period.[41]

16.2.3 Assessment approach

To determine efficient prices for Essential Energy's public lighting services we assessed its public lighting model, considered historical data and benchmarked proposed costs against other distributors and against independent data and information as relevant. Specifically, we assessed proposed labour price growth rates, other input assumptions and stakeholder submissions.

We consulted with Essential Energy and council representatives through information requests and meetings to clarify and potentially resolve outstanding issues.

We also engaged Marsden Jacob to quality-assure public lighting models to ensure they are internally consistent, accurate and fit-for-purpose.

We updated model parameters where appropriate after taking the factors described above into consideration.

For Essential Energy we benchmarked its proposed capex and opex prices for LED lights against the prices of the other NSW distributors and other comparable distributors. This is addressed in section 16.2.4.1.

16.2.4 Reasons for final decision

We do not accept Essential Energy's public lighting prices for Category V LED lights are efficient based on our analysis of Essential Energy's revised proposal and public lighting model as well as concerns raised by stakeholders.

Our benchmarking of Essential Energy's most common requested Category V LED lights shows that its cost inputs are materially above the other NSW distributors. As such, our final decision has made an efficiency adjustment to Essential Energy's proposed public lighting prices (see section 16.2.4.1). The final decision also includes our consideration of individual aspects of Essential Energy's proposal:

- other adjustments from our final decision (section 16.2.4.2)
- introducing new services in the 2024–29 period (section 16.2.4.3).

Southern Lights submitted that whilst it welcomed the increasingly open dialogue with Essential Energy since the draft decision, many of the concerns raised in its May 2023 submission remain. Southern Lights does not believe that Essential Energy is able to justify the large price differences between it and other NSW distributors. Southern Lights also reiterated its earlier concern about the revised proposal's failure to offer smart lighting and the lack of a firm Essential Energy commitment to widely adopt smart street lighting controls.[42]

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41 Essential Energy, *Att. 10.5 - Public Lighting Explanatory Document*, November 2023, p. 5.

42 Central NSW Joint Organisations - Southern Lights, *2024-29 Electricity Determination*, January 2024, p. 2.

To inform our considerations, we engaged with Essential Energy in meetings and information requests around the issues raised by Southern Lights and about the inputs used to build up the proposed prices. However, Essential Energy has maintained that all its inputs are appropriate and that the proposed prices are necessary to recover its costs.[43]

16.2.4.1 Benchmarking

Our final decision applies a top-down adjustment via benchmarking to set efficient prices for Essential Energy. We make this adjustment as our analysis shows that Essential Energy's Category V LED prices do not benchmark well on the directly comparable common light types across comparable distributors.

As set out in our draft decision, our analysis shows that Essential Energy's proposed Category V LED prices are significantly higher than the prices proposed by the other NSW distributors. Southern Lights submission also made this observation and noted its analysis shows that Essential Energy does not benchmark well against Ausgrid on the directly comparable common light types.[44]

In response to our draft decision, Essential Energy submitted that it has concerns with the AER's benchmarking approach as all the NSW distributors have individual circumstances and different operating environments from the others. We acknowledged this point in our draft decision, and in assessing the benchmarks we took into account that Essential Energy is a more regional and remote distributor than Ausgrid and Endeavour Energy and that there are likely some additional costs as a result.[45]

To further inform our considerations for our final decision, we have extended our analysis from the draft decision to include analysis of other comparable distributors prices, in particular those that have regional networks. Table 16.4 presents our analysis of Category V LED prices across the most comparable distributions to Essential Energy. Based on this analysis, we consider that Essential Energy's revised proposal prices for Category V LED lights are not efficient as they are significantly higher than comparable distributors prices.

Table 16.4 Comparable distributors LED prices for 2024–25

Category V Main Road LED (medium)	Powercor	AusNet	Ergon	SAPN	Essential Energy
TOTAL	$61.63	$62.27	$129.78	$120.96	$187.83

Source: AER Analysis.
Notes: Essential Energy and SAPN 150W LED, Powercor and AusNet Category V LED Medium, Ergon Major Road LED Category.

Overall our analysis shows that Essential Energy's prices for Category V LED lights with wattages of 35 Watts and above are significantly above those of other distributors. Essential Energy's proposed prices do not reflect the opex savings we see other distributors passing

43 Essential Energy, *Response to AER Information Request #55*, January 2024.

44 SLC, *Public Lighting Submission*, May 2023, p. 3-4.

45 AER, *Attachment 16 Alternative Control Services – Essential Energy distribution determination 2024–29 Draft Decision*, September 2023, p. 18.

through as a result of introducing Category V LED lights. They also do not reflect the reduction in the costs of purchasing medium to high wattage LEDs that other distributors are passing through in terms of lower capex charges.

Based on our analysis, our final decision applies a top-down efficiency adjustment based on benchmarking analysis against the other distributors. We apply different adjustments for opex and capex for wattages above 35 Watts.[46] These adjustments are a 20% reduction in opex and a 30% reduction in capex to the revised proposal Category V LEDs prices to all 35 Watts LED's and above (Table 16.5).

Table 16.5 Reduction applied to Essential Energy proposed Category V LED prices

	35 WATT LED and above
Opex	20%
Capex	30%

Source: AER Analysis.

Our final decision prices for the most populous 150W LED of the Category V LED lights are set out in Table 16.6. The 20% opex and 30% capex reductions for Category V LEDs bring Essential Energy's prices down to be comparable with Endeavour Energy's opex price and Ergon Energy's total price, which is the upper bound of the prices of the distributors we benchmarked.

Table 16.6 Final Decision 150 Watts LED prices for 2024–25 compared to Benchmarks

Main Road 150W LED (Category V Med, $/year)	Essential Energy	Ergon Energy	Endeavour Energy
Revised proposal opex	$52.63	-	-
Final decision opex	$42.68	-	$38.45
Revised Proposed total capex and opex	$187.83	-	-
Final decision total capex and opex	$140.26	$129.79	-

Source: AER Analysis

We accept Essential Energy's revised proposal prices for Category P LED lights. This includes all prices for LED lights of below 35 Watts, as our analysis finds that Essential Energy's revised proposal prices are comparable with the other NSW distributors. The most

[46] A small number of exceptions are made to this rule to maintain consistency in the relativity of prices across similar light types. Opex for the 42W LED Pecan Luminaire is not reduced. Capex is reduced by 30% for the Kensington 17W LED 3000k, Kensington 34W LED 3000k, LED0257- 14W Bourke Hill Mk2 3K TOP ENTRY, LED0258- 14W Bourke Hill Mk2 3K SIDE ENTRY, LED0260- 16W Kensington 3000k, LED0262- 24W Bourke Hill Mk2 3K TOP ENTRY, LED0264- 24W Bourke Hill Mk2 3K SIDE ENTRY and LED0266- 30W Kensington 3000k, LED0280- 14W Avenue Mk2 3K TOP ENTRY, LED0282- 14W Avenue Mk2 3K SIDE ENTRY, LED0284- 17W B2001 Mk2 3K, LED0286- 24W Avenue Mk2 3K TOP ENTRY, LED0288- 24W Avenue Mk2 3K SIDE ENTRY, LED0290- 28W B2001 Mk2 3K,.

populous 33 Watts LED light, which account for 23% of volumes, will see a reduction in capex prices of 10% from Essential Energy's initial proposal.

We have not adjusted Essential Energy's revised proposal non-LED lights as part of our benchmarking exercise. Essential Energy has proposed price reductions for these lights and we understand the quantities of these lights are very small and diminishing. LED lights are expected to comprise 95% of lights by 2024–25 and to reach 100% by 2027–28.

Our final decision prices for all light types are set out in appendix B.

16.2.4.2 Labour escalator, WACC and CPI

We have also amended the following inputs into Essential Energy's public lighting model. These amendments are consistent with our final decision on other relevant aspects of Essential Energy's regulatory proposal.

Labour rates

Our final decision substitutes the labour rates in Essential Energy's public lighting model with the labour rates used in ancillary network services which have been updated by CPI and the X factor (see Table A.1).

Rate of return

Our final decision substitutes the WACC inputs in Essential Energy's public lighting model to be consistent with our final decision on Essential Energy's rate of return (see attachment 3).

Inflation

Our final decision substitutes the forecast inflation input for the 2024–25 year in Essential Energy's public lighting model with the RBA forecast inflation for February 2024.[47]

In addition, we substituted the inflation figures in the public lighting model for the 2022–23 and 2023–24 regulatory years. We included the actual inflation for those years as defined in the control mechanism that applied to Essential Energy in the 2019–24 period.[48]

16.2.4.3 Introducing new services during a regulatory control period

Our final decision is that Essential Energy must price any new smart lighting services it introduces during the 2024–29 period according to the control mechanism for quoted services. Essential Energy should only introduce new services because customers want them (customer driven). In proposing new services, we require that Essential Energy be able to demonstrate customer support for such prices and services.

Southern Lights submitted its desire for smart lighting controls and its disappointment that Essential Energy is not yet offering this technology. Southern Lights considers smart controls are one of the best methods available to be able to control and reduce the costs councils face in providing public lighting to its residents.[49]

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47 https://www.rba.gov.au/publications/smp/2024/feb/outlook.html#table31

48 AER, *Final decision - Essential Energy distribution determination 2019-24 - Attachment 13 - Control mechanisms,* March 2021, p. 12.

49 SLC, *Public Lighting Submission*, May 2023, p. 7.

We acknowledge smart technologies have potential to bring significant efficiencies to public lighting services. We therefore encourage distributors to deploy such technologies—with associated pricing—where they can provide benefits to customers.

We understand "smart lighting" or "smart technologies" are catch-all terms for technologies with a variety of applications. These include metering individual lights, as well as dimming based on ambient lighting levels or pedestrian/vehicle activity. Distributors and public lighting customers therefore need to engage on the types of smart lighting solutions appropriate to their needs.

Given its status as an emerging technology, the industry is also deliberating on regulatory issues regarding aspects of these applications such as individually meter lighting installations.

We understand that distributors are at different stages in their deployment of smart technologies. Essential Energy informed us it is running a trial of smart lighting. Essential Energy stated it has communicated to councils that it could introduce smart lighting in the future, pending the outcome of this trial.[50]

We are open to Essential Energy introducing regulated pricing for smart lighting during the 2024–29 period where there is demand for such technologies. We consider Essential Energy can price smart lighting in accordance with the control mechanism formula for quoted services should it introduce such services during the 2024–29 period (see attachment 14 section 14.5.1).

We consider this is consistent with our previous distribution determinations. We stated new alternative control services introduced during a regulatory control period with characteristics that are the same or essentially the same as other alternative control services should be priced as a quoted service until the next regulatory control period (see attachment 14 section 14.5.1).

A point of difference for smart lighting is it is an emerging technology. Hence, there would be no other alternative control services "with characteristics that are the same or essentially the same." Customer support is therefore vital to introducing such new technologies during the 2024–29 period.

We note Essential Energy needs to be able to demonstrate that the price it charges a customer for smart lighting services reflects the efficient costs of those services, in accordance with the control mechanism formula (see attachment 14 section 14.5.2).

It is worth considering that quoted services generally apply to one-off services. So the control mechanism poses no administrative issues where, for example, a council agrees to pay for smart lighting assets up-front.

However, some councils may prefer to pay for these assets over its economic or useful life. We consider this is possible under the control mechanism for quoted services.

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[50] Essential Energy, *Response to AER Information Request #40*, July 2023, p. 6.

This could involve determining the up-front costs based on the control mechanism formula as a first step. The distributor would then calculate an annual fee using a method appropriate to the service. We consider an annuity approach using the public pricing model; with modifications only as required, is reasonable.

Further information about quoted services and introducing new prices within the 2024–29 period is set out in attachment 14 section 14.5.1.

A Ancillary network services prices

Table A.1 X factors for each year of the 2024–29 regulatory control period for ancillary network services, final decision (per cent)

	2025–26	2026–27	2027–28	2028–29
X factor	-1.4918%	-0.9117%	-0.8012%	-0.9243%

Note: We do not apply an X factor for 2024–25 because we set 2024–25 ancillary network services prices in this determination. To be clear, the labour escalators in this table are operating as de facto X factors. Therefore, positive labour escalators are represented as negative in this table and vice versa. X factors in this table are rounded to 4 decimal places but distributors should use the raw X factors in the final decision model.

Table A.2 Fee-based ancillary network services for 2024–25, final decision ($2024–25)

Service	Service category	Revised proposal	Final decision
2.1 Substation Commissioning - Business hours	2. Contestable network commissioning and decommissioning	$2,061.67	$1,949.94
2.1 Substation Commissioning - After hours	2. Contestable network commissioning and decommissioning	$3,464.55	$2,692.48
2.2 Testing & Commissioning of Streetlights / Mains / Cables / UG Pillars Underground / Overhead Streetlights- Business hours	2. Contestable network commissioning and decommissioning	$103.64	$97.96
2.2 Testing & Commissioning of Streetlights / Mains / Cables / UG Pillars Underground / Overhead Streetlights- After hours	2. Contestable network commissioning and decommissioning	$172.41	$134.04
2.2 Testing & Commissioning of Streetlights / Mains / Cables / UG Pillars Underground LV Cable (NEW)- Business hours	2. Contestable network commissioning and decommissioning	$103.64	$97.96
2.2 Testing & Commissioning of Streetlights / Mains / Cables / UG Pillars Underground LV Cable (NEW)- After hours	2. Contestable network commissioning and decommissioning	$172.41	$134.04
2.2 Testing & Commissioning of Streetlights / Mains / Cables / UG Pillars Underground Pillar / Pits- Business hours	2. Contestable network commissioning and decommissioning	$103.64	$97.96

Service	Service category	Revised proposal	Final decision
2.2 Testing & Commissioning of Streetlights / Mains / Cables / UG Pillars Underground Pillar / Pits- After hours	2. Contestable network commissioning and decommissioning	$172.41	$134.04
2.2 Testing & Commissioning of Streetlights / Mains / Cables / UG Pillars Underground Cable Test- Business hours	2. Contestable network commissioning and decommissioning	$915.49	$865.36
2.2 Testing & Commissioning of Streetlights / Mains / Cables / UG Pillars Underground Cable Test- After hours	2. Contestable network commissioning and decommissioning	$1,522.94	$1,184.05
2.3 Redundant Material Coordination - Business hours	2. Contestable network commissioning and decommissioning	$63.01	$59.91
2.4 Commissioning - Other Network Equipment Recloser- Business hours	2. Contestable network commissioning and decommissioning	$2,975.67	$2,820.68
2.4 Commissioning - Other Network Equipment Recloser- After hours	2. Contestable network commissioning and decommissioning	$5,099.89	$4,155.37
2.4 Commissioning - Other Network Equipment Regulator- Business hours	2. Contestable network commissioning and decommissioning	$3,404.38	$3,227.04
2.4 Commissioning - Other Network Equipment Regulator- After hours	2. Contestable network commissioning and decommissioning	$5,832.21	$4,756.64
2.4 Commissioning - Other Network Equipment Smart Switch- Business hours	2. Contestable network commissioning and decommissioning	$1,244.15	$1,179.20
2.4 Commissioning - Other Network Equipment Smart Switch- After hours	2. Contestable network commissioning and decommissioning	$2,105.57	$1,765.97
3.1 Notice of Arrangement - Business hours	3. Notices of arrangement and completion notices	$466.45	$442.41
3.2 Request for Early Notice of Arrangement - Business hours	3. Notices of arrangement and completion notices	$630.32	$597.94

Service	Service category	Revised proposal	Final decision
4.1 Connection Connection - Live LV Connection (NEW)- Business hours	4. Access permits, oversight and facilitation	$1,523.77	$1,441.17
4.1 Connection Connection - Live LV Connection (NEW)- Business hours	4. Access permits, oversight and facilitation	$2,417.77	$1,910.19
4.1 Connection Outage Connection - Basic: Single-point isolation (NEW)- Business hours	4. Access permits, oversight and facilitation	$2,467.80	$2,335.35
4.1 Connection Outage Connection - Basic: Single-point isolation (NEW)- Business hours	4. Access permits, oversight and facilitation	$3,085.74	$2,572.36
4.1 Connection Outage Connection - Complex: Multi-point isolation (NEW)- Business hours	4. Access permits, oversight and facilitation	$4,022.39	$3,804.82
4.1 Connection Outage Connection - Complex: Multi-point isolation (NEW)- Business hours	4. Access permits, oversight and facilitation	$5,672.84	$4,670.70
4.1 Connection Outage Connection - Sub-transmission (NEW)- Business hours	4. Access permits, oversight and facilitation	$6,837.50	$6,467.04
4.1 Connection Outage Connection - Sub-transmission (NEW)- Business hours	4. Access permits, oversight and facilitation	$10,138.39	$8,198.80
4.1 Connection Connection Rescheduled (Outage Cancellation)- Business hours	4. Access permits, oversight and facilitation	$836.14	$791.13
4.3 Services to supply and connect temporary supply to one or more customers Connect & disconnect MG to OH/UG mains, switchboard or kiosk- Business hours	4. Access permits, oversight and facilitation	$2,784.37	$2,633.35
4.3 Services to supply and connect temporary supply to one or more customers Connect & disconnect MG to OH/UG mains, switchboard or kiosk- After hours	4. Access permits, oversight and facilitation	$3,747.13	$3,138.45

Service	Service category	Revised proposal	Final decision
4.3 Services to supply and connect temporary supply to one or more customers Install & remove HV LL Links or bonds- Business hours	4. Access permits, oversight and facilitation	$4,030.83	$3,811.27
4.3 Services to supply and connect temporary supply to one or more customers Install & remove HV LL Links or bonds- After hours	4. Access permits, oversight and facilitation	$5,887.58	$4,785.39
4.3 Services to supply and connect temporary supply to one or more customers Break & remake LV bonds- Business hours	4. Access permits, oversight and facilitation	$3,719.91	$3,517.38
4.3 Services to supply and connect temporary supply to one or more customers Break & remake LV bonds- After hours	4. Access permits, oversight and facilitation	$5,370.36	$4,383.26
6.1 Conveyancing Information - Business hours	6. Network related property services	$63.01	$59.91
7.1 Site Establishment - Business hours	7. Site establishment services	$94.52	$89.86
8.1 Work near electrical assets - De energisation of Mains - Business hours	8. Network safety services	$2,809.54	$2,657.54
8.1 Work near electrical assets - De energisation of Mains - After hours	8. Network safety services	$3,909.84	$3,234.80
8.2 Work near electrical assets - Disable Auto Reclose - Business hours	8. Network safety services	$925.81	$875.84
8.2 Work near electrical assets - Disable Auto Reclose - After hours	8. Network safety services	$1,097.73	$966.03
8.6 Warning Markers Hire - Tiger Tails- Business hours	8. Network safety services	$0.72	$0.68
8.6 Warning Markers Hire - Warning Markers- Business hours	8. Network safety services	$1.68	$1.58
8.6 Warning Markers Purchase - Warning Markers- Business hours	8. Network safety services	$172.02	$162.70
8.7 High Load Escorts High Load Permit (NEW)- Business hours	8. Network safety services	$126.03	$119.81

Service	Service category	Revised proposal	Final decision
13.2 Inspection of service work (Level 2 ASP's) Per NOSW - A Grade- Business hours	13. Inspection and auditing services	$56.75	$53.78
13.2 Inspection of service work (Level 2 ASP's) Per NOSW - B Grade- Business hours	13. Inspection and auditing services	$113.49	$107.56
13.2 Inspection of service work (Level 2 ASP's) Per NOSW - C Grade- Business hours	13. Inspection and auditing services	$283.73	$268.89
13.4 Inspection Customer Installation - Business hours	13. Inspection and auditing services	$56.75	$53.78
13.6 Investigation, review & implementation of remedial actions associated with work performed by ASP's Incident Category 3 - 5 Classification- Business hours	13. Inspection and auditing services	$3,631.80	$3,441.77
13.7 Substation Inspection Substation Inspection - A Grade- Business hours	13. Inspection and auditing services	$453.98	$430.22
13.7 Substation Inspection Substation Inspection - B Grade- Business hours	13. Inspection and auditing services	$794.46	$752.89
13.7 Substation Inspection Substation Inspection - C Grade- Business hours	13. Inspection and auditing services	$1,021.45	$968.00
14.1 Provision of Training to ASP's for Network Access Access Permit Recipient Training to ASPs (scheduled course)- Business hours	14. Provision of training to third parties for network related access	$315.24	$298.84
14.1 Provision of Training to ASP's for Network Access Access Permit Recipient Training to ASPs (requested out of schedule course)- Business hours	14. Provision of training to third parties for network related access	$2,647.96	$2,510.55
14.3 Provision of Training - Entry into Electrical Stations - Business hours	14. Provision of training to third parties for network related access	$636.75	$603.81

Service	Service category	Revised proposal	Final decision
15.1 Authorisation of ASPs Authorisation - Initial- Business hours	15. Authorisation of ASPs	$598.80	$568.43
15.1 Authorisation of ASPs Authorisation - Renewal- Business hours	15. Authorisation of ASPs	$157.53	$149.77
15.2 ASP Authorisation Agreement Authorisation Agreement - Initial- Business hours	15. Authorisation of ASPs	$504.28	$478.56
15.2 ASP Authorisation Agreement Authorisation Agreement - Renewal- Business hours	15. Authorisation of ASPs	$63.01	$59.91
16.1 Provision of Security Lighting Nightwatch 250W- Business hours	16. Security Lighting	$27.66	$26.16
16.1 Provision of Security Lighting Nightwatch 400W - Business hours	16. Security Lighting	$38.65	$36.55
16.1 Provision of Security Lighting Nightwatch 1000W - Business hours	16. Security Lighting	$79.89	$75.55
16.1 Provision of Security Lighting Night Vision X Small LED - 5 Yr Contract (NEW)- Business hours	16. Security Lighting	$24.07	$22.77
16.1 Provision of Security Lighting Night Vision X Small LED - Upfront (NEW)- Business hours	16. Security Lighting	$1,024.74	$969.19
16.1 Provision of Security Lighting Night Vision X Small LED - Monthly Service (NEW)- Business hours	16. Security Lighting	$8.02	$7.59
16.1 Provision of Security Lighting Night Vision Small LED - 5 Yr Contract (NEW)- Business hours	16. Security Lighting	$22.89	$21.65
16.1 Provision of Security Lighting Night Vision Small LED - Upfront (NEW)- Business hours	16. Security Lighting	$959.38	$907.37
16.1 Provision of Security Lighting Night Vision Small LED - Monthly Service (NEW)- Business hours	16. Security Lighting	$13.09	$12.38

Service	Service category	Revised proposal	Final decision
16.1 Provision of Security Lighting Night Vision Medium LED - 5 Yr Contract (NEW)- Business hours	16. Security Lighting	$25.97	$24.56
16.1 Provision of Security Lighting Night Vision Medium LED - Upfront (NEW)- Business hours	16. Security Lighting	$1,129.36	$1,068.14
16.1 Provision of Security Lighting Night Vision Medium LED - Monthly Service (NEW)- Business hours	16. Security Lighting	$19.38	$18.33
16.1 Provision of Security Lighting Night Vision Large LED - 5 Yr Contract (NEW)- Business hours	16. Security Lighting	$33.14	$31.34
16.1 Provision of Security Lighting Night Vision Large LED - Upfront (NEW)- Business hours	16. Security Lighting	$1,525.45	$1,442.76
16.1 Provision of Security Lighting Night Vision Large LED - Monthly Service (NEW)- Business hours	16. Security Lighting	$30.08	$28.45
16.1 Provision of Security Lighting Night Vision X Large LED - 5 Yr Contract (NEW)- Business hours	16. Security Lighting	$50.42	$47.69
16.1 Provision of Security Lighting Night Vision X Large LED - Upfront (NEW)- Business hours	16. Security Lighting	$2,480.15	$2,345.71
16.1 Provision of Security Lighting Night Vision X Large LED - Monthly Service (NEW)- Business hours	16. Security Lighting	$36.87	$34.87
16.1 Provision of Security Lighting Night Vision Exit Fee - X Small LED (NEW)- Business hours	16. Security Lighting	$512.37	$484.60
16.1 Provision of Security Lighting Night Vision Exit Fee - Small LED (NEW)- Business hours	16. Security Lighting	$479.69	$453.69

Service	Service category	Revised proposal	Final decision
16.1 Provision of Security Lighting Night Vision Exit Fee - Medium LED (NEW)- Business hours	16. Security Lighting	$564.68	$534.07
16.1 Provision of Security Lighting Night Vision Exit Fee - Large LED (NEW)- Business hours	16. Security Lighting	$762.73	$721.38
16.1 Provision of Security Lighting Night Vision Exit Fee - X Large LED (NEW)- Business hours	16. Security Lighting	$1,240.08	$1,172.85
16.2 Provision of Luminaire Glare Shield Provision of Luminaire Glare Shield (customer requested)- Business hours	16. Security Lighting	$604.80	$571.78
18.1 Provision of metering or consumption data - individual data request - Business hours	18. Customer requested provision of electricity network data - NEW SERVICE GROUPING	$31.51	$29.95
24.4 Connection offer service Connection application - Auto-approved (NEW)- Business hours	24. Connection management services - NEW SERVICE GROUPING	$47.01	$44.46
24.4 Connection offer service Connection application - Technical review (NEW)- Business hours	24. Connection management services - NEW SERVICE GROUPING	$248.72	$235.71
24.4 Connection offer service Connection application - Incomplete information (NEW)- Business hours	24. Connection management services - NEW SERVICE GROUPING	$30.26	$28.69
24.8 Pioneer scheme administration Establishment- Business hours	24. Connection management services - NEW SERVICE GROUPING	$126.03	$119.81
24.8 Pioneer scheme administration New connection- Business hours	24. Connection management services - NEW SERVICE GROUPING	$126.03	$119.81
24.11 Reconnections /disconnections Disconnect - vacant premise- Business hours	24. Connection management services - NEW SERVICE GROUPING	$77.81	$73.59

Service	Service category	Revised proposal	Final decision
24.11 Reconnections /disconnections Reconnect - vacant premise- Business hours	24. Connection management services - NEW SERVICE GROUPING	$81.84	$77.40
24.11 Reconnections /disconnections Site visit only- Business hours	24. Connection management services - NEW SERVICE GROUPING	$77.81	$73.59
24.11 Reconnections /disconnections Disconnect - pole top / pillar box- Business hours	24. Connection management services - NEW SERVICE GROUPING	$362.74	$342.88
24.11 Reconnections /disconnections Reconnect - pole top / pillar box- Business hours	24. Connection management services - NEW SERVICE GROUPING	$362.74	$342.88
24.11 Reconnections /disconnections Disconnection - complete- Business hours	24. Connection management services - NEW SERVICE GROUPING	$89.67	$84.81
24.11 Reconnections /disconnections Reconnection - complete- Business hours	24. Connection management services - NEW SERVICE GROUPING	$81.84	$77.40
24.11 Reconnections /disconnections Disconnection - technical disconnection- Business hours	24. Connection management services - NEW SERVICE GROUPING	$89.67	$84.81
24.11 Reconnections /disconnections Reconnect - technical reconnection- Business hours	24. Connection management services - NEW SERVICE GROUPING	$81.84	$77.40
24.11 Reconnections /disconnections Reconnect - outside of normal business hours - Business hours	24. Connection management services - NEW SERVICE GROUPING	$207.28	$195.93
26.1 Move in / move out read - Business hours	26. Special meter reading and testing (legacy meters)	$38.22	$36.15
26.2 Special meter read (incl wasted visit) - Business hours	26. Special meter reading and testing (legacy meters)	$38.22	$36.15

Service	Service category	Revised proposal	Final decision
26.3 Special meter test - 1st - Business hours	26. Special meter reading and testing (legacy meters)	$1,365.98	$962.10
26.4 Special meter tests - additional - Business hours	26. Special meter reading and testing (legacy meters)	$773.33	$460.18
26.5 Special meter tests - CT meter - Business hours	26. Special meter reading and testing (legacy meters)	$1,252.49	$854.54
27.1 Unplanned outage - meter fault (site attendance) - Business hours	27. Emergency maintenance metering equipment not owned by the distributor (contestable meters)	$517.27	$489.04
27.1 Unplanned outage - meter fault (site attendance) - After hours	27. Emergency maintenance metering equipment not owned by the distributor (contestable meters)	$838.19	$657.41
27.2 Unplanned outage - meter hot water fault (site attendance) - Business hours	27. Emergency maintenance metering equipment not owned by the distributor (contestable meters)	$517.27	$489.04
27.2 Unplanned outage - meter hot water fault (site attendance) - After hours	27. Emergency maintenance metering equipment not owned by the distributor (contestable meters)	$838.19	$657.41
27.3 Unplanned outage - retailer outage impacting non retailer customer (site attendance) - Business hours	27. Emergency maintenance metering equipment not owned by the distributor (contestable meters)	$430.44	$407.02
27.3 Unplanned outage - retailer outage impacting non retailer customer (site attendance) - After hours	27. Emergency maintenance metering equipment not owned by the distributor (contestable meters)	$682.59	$539.30
27.4 Unplanned outage - remote de-energisation - EE not notified (site attendance) - Business hours	27. Emergency maintenance metering equipment not owned by the distributor (contestable meters)	$430.44	$407.02
27.4 Unplanned outage - remote de-energisation - EE not notified (site attendance) - After hours	27. Emergency maintenance metering equipment not owned by the distributor (contestable meters)	$682.59	$539.30

Service	Service category	Revised proposal	Final decision
28.1 Redundant meter disposal - Business hours	28. Meter recovery and disposal − type 5 and 6 (legacy meters)	$31.51	$29.95
29.1 Retailer requested distributer planned interruption - Cancellation after notification - Business hours	29. Distributor arranged outage for purposes of replacing meter	$612.72	$579.69
29.2 Retailer requested distributer planned interruption - Initial visit - Business hours	29. Distributor arranged outage for purposes of replacing meter	$536.16	$507.09
29.2 Retailer requested distributer planned interruption - Initial visit - After hours	29. Distributor arranged outage for purposes of replacing meter	$857.06	$675.44
29.3 Retailer requested distributer planned interruption - Isolation completed - Business hours	29. Distributor arranged outage for purposes of replacing meter	$459.61	$434.50
29.3 Retailer requested distributer planned interruption - Isolation completed - After hours	29. Distributor arranged outage for purposes of replacing meter	$757.58	$590.82
29.4 Retailer requested distributer planned interruption - Early cancellation - Business hours	29. Distributor arranged outage for purposes of replacing meter	$62.32	$58.96
29.5 Retailer requested distributer planned interruption - MC no attendance - Business hours	29. Distributor arranged outage for purposes of replacing meter	$425.06	$401.84
29.5 Retailer requested distributer planned interruption - MC no attendance - After hours	29. Distributor arranged outage for purposes of replacing meter	$700.12	$546.14
30.1 Off-peak conversion - Business hours	30. Other metering services (type 5 to 6 metering installations and legacy meters) - NEW SERVICE GROUPING	$138.19	$130.62

Table A.3 Quoted service hourly labour rates (business hours) for 2024–25, final decision ($2024–25)

	Revised proposal (business hours)	Final decision (business hours)	Revised proposal (after hours, implicit rate)[51]	Final decision (after hours)
R1 - Admin		$119.81		$186.60
R2a - Technical Specialist - Indoor		$191.25		$273.89
R2b - Technical Specialist - Outdoor		$215.11		$327.37
R3a - Engineer		$247.04		$300.11
R3b - Senior Engineer		$300.12		$364.59
R3c - Engineering Manager		$345.11		$450.04
R4 - Field Worker		$195.93		$268.09

Table A.4 Non-exhaustive list of ancillary network services provided on a quotation basis

Description of service	Description of service
1.1 Design information	13.3 Re-inspection of work of a service provider (level 1 & level 2 ASP's work)
1.2 Design certification	13.5 Re-inspection customer installation
1.3 Design consultation	13.6 Investigation, review & implementation of remedial actions associated with work performed by ASP's: Incident category 1 -2 classification
1.4 Administration	13.8 Inspection services of privately owned electrical infrastructure assets

[51] Ausgrid did not explicitly propose these overtime rates. Rather, they noted that we set the maximum overtime labour rate at 1.75 times the relevant ordinary rate and considered this cap is reasonable. See Ausgrid, *Att 9.3 – Ancillary network services*, 31 Jan 2023, p 23.

Description of service	Description of service
1.5 Non - standard design approval	14.1 Provision of training to ASP's for network access: Access permit recipient training to ASPs: requested out of schedule course - travel
2.4 Commissioning - other network equipment: Other – specialised equipment	14.1 Provision of training to ASP's for network access: Access permit recipient training to ASPs: requested out of schedule course – accommodation & incidentals
3.2 Request for early notice of arrangement: Request for early notice of arrangement - field inspection (NEW)	14.2 ASP compliance related training services: ASP compliance related training services: scheduled course
3.3 Completion notice - other than notice of arrangement	14.2 ASP compliance related training services: Access permit recipient training to ASPs: requested out of schedule course - travel
4.1 Outage connection - major contestable distribution	14.2 ASP compliance related training services: Access permit recipient training to ASPs: requested out of schedule course - accommodation & incidentals
4.2 Access to network assets (standby)	14.2 ASP compliance related training services: Materials
4.3 Services to supply and connect temporary supply to one or more customers	14.3 Provision of training - entry into electrical stations: Additional site visits
4.4 Rectification of contestable work (ASP Installed)	17.1 Design and construction of asset relocations - customer funded
5.1 Sale of approved materials / equipment to ASPs	18.1 Provision of metering or consumption data - bulk data request (NEW)
6.2 Easement processing - conveyancing review	18.2 Data requests outside of legislative obligations (NEW)
6.3 Services involved in obtaining deeds of agreement (DOA)	19.1 DNSP Provided cable jointing & termination services for contestable work
6.4 Development applications and encroachment processing	20.1 Authorisation and approval of third party service providers' design, work and materials (NEW)
6.5 Crown land acquisition	21.1 Third party funded network alterations or other improvements (NEW)
6.6 Legal review services - customer funded works	21.2 Lighting services minor capital works (MCW) (NEW)

Description of service	Description of service
6.7 Network-related property disbursement (NEW)	22.1 Standard connection services (NEW)
8.3 Provision of traffic control by the DSNP	23.1 Non-basic negotiated connection (NEW)
8.4 Site safety supervision	24.1 Connections customer interface co-ordination
8.5 Provision of construction work by DSNP	24.2 Preliminary enquiry service: Basic
8.6 Warning markers: Design	24.2 Preliminary enquiry service: Complex
8.6 Warning markers: Installation	24.3 Connection / relocation process facilitation
8.6 Warning markers: Material & contractors	24.5 Planning, protection and power quality studies
8.7 High load escorts	24.6 Additional services requested by ASP/connection applicant
9.1 Vegetation clearing of private trees encroaching DNSP assets	24.7 Data gathering fee - failure to provide documentation
9.2 Inspection of private trees encroaching DSNP assets	24.9 Application: Complex connection (NEW)
9.3 Vegetation clearing of private trees encroaching private assets	24.10 Connection point management services (NEW)
9.4 Rectification works by Essential Energy of private asset aerial mains defects	24.11 Reconnections /disconnections: Illegal connections
9.5 Rectification works by Essential Energy of DSNP's assets due to landowner encroachment issues	25.1 Enhanced connection service (NEW)
10.1 Retailer of last resort (ROLR)	29.3 Retailer requested distributer planned interruption - Isolation completed
11.1 Planned interruption - customer requested	29.6 Retailer requested planned interruption on high voltage CT metering site, including testing of distributer owned high voltage metering primary and secondary plant - (NEW)
12.1 Attendance at customers' premises - Statutory Right	31.1 Provider of last resort services (NEW)
13.1 Inspection of construction work (by level 1 ASP's)	

B Public lighting prices

Table B.1 LED 2024–25 Nominal Prices ($ per year)

LED type	Opex revised proposal	Opex final decision	% difference	Capex revised proposal	Capex final decision	% difference
23W LED Gerard StreetLED	36.36	36.94	1.6	71.62	74.16	3.5
17W LED Gerard StreetLED	36.36	36.94	1.6	73.75	76.37	3.5
17W LED Gerard StreetLED Aeroscreen	36.36	36.94	1.6	75.98	78.67	3.5
17W LED Gerard StreetLED Louvred	36.36	36.94	1.6	61.30	63.47	3.5
22W LED Gerard StreetLED	36.36	36.94	1.6	73.75	76.37	3.5
25W LED GE Evolve	36.36	36.94	1.6	52.48	54.33	3.5
35W LED Pecan Luminaire	36.36	36.94	1.6	90.44	93.66	3.6
29W LED Pecan Luminaire - Aeroscreen	36.36	36.94	1.6	90.44	93.66	3.6
42W LED Gerard StreetLED	36.36	36.94	1.6	75.73	78.42	3.5
42W LED Pecan Luminaire	52.63	42.68	-18.9	131.61	94.98	-27.8
36W LED Pecan Luminaire - Aeroscreen	52.63	42.68	-18.9	131.61	94.98	-27.8
105W LED Aldridge Luminaire	52.63	42.68	-18.9	212.14	153.39	-27.7
198W LED Aldridge Standard Distribution	52.63	42.68	-18.9	237.93	172.10	-27.7
198W LED Aldridge Forward Distribution	52.63	42.68	-18.9	235.21	170.12	-27.7
298W LED Aldridge Luminaire	52.63	42.68	-18.9	267.60	193.61	-27.6

LED type	Opex revised proposal	Opex final decision	% difference	Capex revised proposal	Capex final decision	% difference
100W LED Aldridge Luminaire	52.63	42.68	-18.9	236.83	171.30	-27.7
200W LED Aldridge Luminaire	52.63	42.68	-18.9	236.83	171.30	-27.7
300W LED Aldridge Luminaire	52.63	42.68	-18.9	266.33	192.69	-27.6
LED 33W Luminaire StreetLED2 Category P3 Aeroscreen	36.36	36.94	1.6	69.85	72.32	3.5
LED 33W Luminaire StreetLED2 Category P3 Aeroscreen + Zhaga	36.36	36.94	1.6	74.12	76.75	3.5
LED 17W Luminaire StreetLED3 3000K P4/P5	36.36	36.94	1.6	57.24	59.26	3.5
LED 17W Luminaire StreetLED3 3000K P4/P5 + Zhaga	36.36	36.94	1.6	61.51	63.69	3.5
LED 17W Luminaire StreetLED3 Louvred Category P4/P5 Reduced RRW	36.36	36.94	1.6	55.74	57.71	3.5
LED 17W Luminaire StreetLED3 Louvred Category P4/P5 Reduced RRW + Zhaga	36.36	36.94	1.6	65.58	67.89	3.5
LED 25W Luminaire StreetLED3 2200K, 2022lm, 505mA	36.36	36.94	1.6	61.73	63.91	3.5
LED 25W Luminaire StreetLED3 2200K, 2022lm, 505mA + Zhaga	36.36	36.94	1.6	66.00	68.34	3.5
LED 50W Luminaire RoadLED Midi 4000K, 7614lm, 208mA	52.63	42.68	-18.9	131.99	95.25	-27.8
LED 50W Luminaire RoadLED Midi 4000K, 7614lm, 208mA + Zhaga	52.63	42.68	-18.9	136.27	98.35	-27.8
LED 80W Luminaire RoadLED Midi 4000K, 9509lm, 661mA	52.63	42.68	-18.9	131.99	95.25	-27.8

LED type	Opex revised proposal	Opex final decision	% difference	Capex revised proposal	Capex final decision	% difference
LED 80W Luminaire RoadLED Midi 4000K, 9509lm, 661mA + Zhaga	52.63	42.68	-18.9	136.27	98.35	-27.8
LED 150W Luminaire RoadLED Midi 4000K, 20321lm, 650mA	52.63	42.68	-18.9	135.20	97.58	-27.8
LED 150W Luminaire RoadLED Midi 4000K, 20321lm, 650mA + Zhaga	52.63	42.68	-18.9	136.27	98.35	-27.8
LED 300W Luminaire RoadLED 4K 4000K, 35254lm, 650mA, Aeroscreen	52.63	42.68	-18.9	196.11	141.76	-27.7
LED 300W Luminaire RoadLED 4K 4000K, 35254lm, 650mA, Aeroscreen + Zhaga	52.63	42.68	-18.9	200.38	144.86	-27.7
LED 27W Luminaire, IGNIS Mini 020 MX2 Square 3000K, 425mA, 3685lm	36.36	36.94	1.6	69.74	72.21	3.5
LED 27W Luminaire, IGNIS Mini 020 MX2 Square 3000K, 425mA, 3685lm + Zhaga	36.36	36.94	1.6	78.72	81.51	3.6
LED 22W Luminaire, IGNIS Mini 020 MX2 Square 3000K , 275mA, 2506lm	36.36	36.94	1.6	69.74	72.21	3.5
LED 22W Luminaire, IGNIS Mini 020 MX2 Square 3000K , 275mA, 2506lm + Zhaga	36.36	36.94	1.6	78.72	81.51	3.6
LED 22W Luminaire, IGNIS Mini 020 MX2 Square 3000K, 275mA, 2200lm & Shield	36.36	36.94	1.6	69.74	72.21	3.5
LED 22W Luminaire, IGNIS Mini 020 MX2 Square 3000K, 275mA, 2200lm & Shield + Zhaga	36.36	36.94	1.6	78.72	81.51	3.6

LED type	Opex revised proposal	Opex final decision	% difference	Capex revised proposal	Capex final decision	% difference
LED 22W Luminaire, IGNIS Mini 020 MX2 Square 2200K, 350mA, 2811lm	36.36	36.94	1.6	69.74	72.21	3.5
LED 22W Luminaire, IGNIS Mini 020 MX2 Square 2200K, 350mA, 2811lm + Zhaga	36.36	36.94	1.6	78.72	81.51	3.6
LED 71W Luminaire, IGNIS 1 036 NSW1 Square 4000K, 650mA, 8960lm	52.63	42.68	-18.9	119.38	86.11	-27.9
LED 71W Luminaire, IGNIS 1 036 NSW1 Square 4000K, 650mA, 8960lm + Zhaga	52.63	42.68	-18.9	128.36	92.62	-27.8
LED 49W Luminaire, IGNIS 1 036 NSW1 Square 4000K, 450mA, 6532lm	52.63	42.68	-18.9	119.38	86.11	-27.9
LED 49W Luminaire, IGNIS 1 036 NSW1 Square 4000K, 450mA, 6532lm + Zhaga	52.63	42.68	-18.9	128.36	92.62	-27.8
LED 17W Luminaire GE Evolve 3000K P4/P5	36.36	36.94	1.6	54.89	56.82	3.5
Bourke Hill 17W LED Aeroscreen luminaire Top Entry	36.36	36.94	1.6	122.22	128.50	5.1
Bourke Hill 34W LED Aeroscreen luminaire Top Entry	36.36	36.94	1.6	122.22	128.50	5.1
Bourke Hill 17W LED Aeroscreen luminaire Side Entry	36.36	36.94	1.6	122.22	128.50	5.1
Bourke Hill 34W LED Aeroscreen luminaire Side Entry	36.36	36.94	1.6	122.22	128.50	5.1
Parkville 80W LED Aeroscreen luminaire Top Entry	52.63	42.68	-18.9	217.42	159.78	-26.5
Parkville 100W LED Aeroscreen luminaire Top Entry	52.63	42.68	-18.9	217.42	159.78	-26.5

LED type	Opex revised proposal	Opex final decision	% difference	Capex revised proposal	Capex final decision	% difference
Parkville 155W LED Aeroscreen luminaire Top Entry	52.63	42.68	-18.9	222.98	163.87	-26.5
Parkville 80W LED Aeroscreen luminaire Side Entry	52.63	42.68	-18.9	222.36	163.41	-26.5
Parkville 100W LED Aeroscreen luminaire Side Entry	52.63	42.68	-18.9	222.36	163.41	-26.5
Parkville 155W LED Aeroscreen luminaire Side Entry	52.63	42.68	-18.9	227.91	167.51	-26.5
Kensington 17W LED 3000k	36.36	36.94	1.6	147.02	108.22	-26.4
Kensington 34W LED 3000k	36.36	36.94	1.6	146.29	107.68	-26.4
LED210-Emilio Catenary 71W	52.63	42.68	-18.9	205.74	148.75	-27.7
LED214-GE Area Lighter Flood Light 150W	52.63	42.68	-18.9	102.50	73.86	-27.9
LED218-GE Area Lighter Flood Light 240W	52.63	42.68	-18.9	119.17	85.95	-27.9
LED222-Sirkel Catenary 100W	52.63	42.68	-18.9	311.56	225.50	-27.6
LED 76W Luminaire, IGNIS 1 036 RMS5 4000K, 675mA	52.63	42.68	-18.9	117.38	84.66	-27.9
LED0240-GE EVOLVE CAT V LEOPARD 204W	52.63	42.68	-18.9	151.26	109.23	-27.8
LED0241-GE EVOLVE CAT V LEOPARD 204W - Zhaga	52.63	42.68	-18.9	153.47	110.83	-27.8
LED0244-GE EVOLVE CAT V LEOPARD 122W	52.63	42.68	-18.9	134.18	96.84	-27.8
LED0245-GE EVOLVE CAT V LEOPARD 122W - Zhaga	52.63	42.68	-18.9	136.39	98.44	-27.8
LED0249-StreetLED3 13.7W 3K DALI	36.36	36.94	1.6	60.63	62.77	3.5

LED type	Opex revised proposal	Opex final decision	% difference	Capex revised proposal	Capex final decision	% difference
LED0250-StreetLED3 13.7W 3K SR + Zhaga	36.36	36.94	1.6	69.23	71.68	3.5
LED0253-StreetLED3 24W 3K DALI Aeroscreen	36.36	36.94	1.6	71.66	74.20	3.5
LED0254-StreetLED2 24W 3K SR Aeroscreen + Zhaga	36.36	36.94	1.6	76.08	78.78	3.5
LED0257- 14W Bourke Hill Mk2 3K TOP ENTRY	36.36	36.94	1.6	216.11	156.71	-27.5
LED0258- 14W Bourke Hill Mk2 3K SIDE ENTRY	36.36	36.94	1.6	216.11	156.71	-27.5
LED0260- 16W Kensington 3000k	36.36	36.94	1.6	254.82	184.79	-27.5
LED0262- 24W Bourke Hill Mk2 3K TOP ENTRY	36.36	36.94	1.6	216.11	156.71	-27.5
LED0264- 24W Bourke Hill Mk2 3K SIDE ENTRY	36.36	36.94	1.6	216.11	156.71	-27.5
LED0266- 30W Kensington 3000k	36.36	36.94	1.6	261.45	189.60	-27.5
LED0268- 80W Parkville Mk2 4K TOP ENTRY	52.63	42.68	-18.9	267.67	193.66	-27.6
LED0270- 80W Parkville Mk2 4K SIDE ENTRY	52.63	42.68	-18.9	276.52	200.08	-27.6
LED0272- 100W Parkville Mk2 4K TOP ENTRY	52.63	42.68	-18.9	267.67	193.66	-27.6
LED0274- 100W Parkville Mk2 4K SIDE ENTRY	52.63	42.68	-18.9	276.52	200.08	-27.6
LED0276- 150W Parkville Mk2 4K TOP ENTRY	52.63	42.68	-18.9	277.62	200.88	-27.6
LED0278- 150W Parkville Mk2 4K SIDE ENTRY	52.63	42.68	-18.9	286.47	207.30	-27.6
LED0280- 14W Avenue Mk2 3K TOP ENTRY	36.36	36.94	1.6	175.18	127.03	-27.5
LED0282- 14W Avenue Mk2 3K SIDE ENTRY	36.36	36.94	1.6	175.18	127.03	-27.5

LED type	Opex revised proposal	Opex final decision	% difference	Capex revised proposal	Capex final decision	% difference
LED0284- 17W B2001 Mk2 3K	36.36	36.94	1.6	197.30	143.07	-27.5
LED0286- 24W Avenue Mk2 3K TOP ENTRY	36.36	36.94	1.6	175.18	127.03	-27.5
LED0288- 24W Avenue Mk2 3K SIDE ENTRY	36.36	36.94	1.6	175.18	127.03	-27.5
LED0290- 28W B2001 Mk2 3K	36.36	36.94	1.6	197.30	143.07	-27.5
LED0292-GE Area Lighter Flood Light 500W	52.63	42.68	-18.9	276.52	200.08	-27.6

Table B.2 Supports, Brackets, Night Patrols 2024–25 Nominal Prices ($ per year)

	Opex revised proposal	Opex final decision	% difference	Capex revised proposal	Capex final decision	% difference
7.5m Steel Column Single Outreach	16.33	16.61	1.7	203.84	218.39	7.1
7.5m Steel Column Double Outreach	16.33	16.61	1.7	223.55	239.52	7.1
9.0m Steel Column Single Outreach	16.33	16.61	1.7	226.28	242.44	7.1
9.0m Steel Column Double Outreach	16.33	16.61	1.7	251.23	269.18	7.1
10.5m Steel Column Single Outreach	16.33	16.61	1.7	361.72	388.37	7.4
10.5m Steel Column Double Outreach	16.33	16.61	1.7	396.11	425.22	7.3
12.0m Steel Column Single Outreach	16.33	16.61	1.7	378.27	406.10	7.4
12.0m Steel Column Double Outreach	16.33	16.61	1.7	427.98	459.38	7.3
12m Roundabout Column	16.33	16.61	1.7	504.31	541.18	7.3
15m Roundabout Column	16.33	16.61	1.7	555.07	595.58	7.3
18m Roundabout Column	16.33	16.61	1.7	744.21	798.28	7.3
9.5m Timber Pole	18.78	19.11	1.7	105.47	114.54	8.6
11m Timber Pole	18.78	19.11	1.7	152.00	163.61	7.6
12.5m Timber Pole	18.78	19.11	1.7	176.59	189.96	7.6
14m Timber Pole	18.78	19.11	1.7	188.71	202.95	7.5
15.5m Timber Pole	18.78	19.11	1.7	197.05	211.89	7.5

	Opex revised proposal	Opex final decision	% difference	Capex revised proposal	Capex final decision	% difference
Decorative Category P Column	16.33	16.61	1.7	210.46	227.05	7.9
Suspended	37.56	38.22	1.7			
Night Patrol Per Asset Inspection	9.80	9.97	1.7			
Streetlight Bracket Category P				21.74	23.25	7.0
Streetlight Bracket Category V				33.48	33.51	0.1

Table B.3 Traditional Luminaire 2024–25 Nominal Prices ($ per year)

Traditional luminaire type	Opex revised proposal	Opex final decision	% difference	Capex revised proposal	Capex final decision	% difference
Tubular Flourescent <40W	54.77	55.71	1.7			
Tubular Flourescent >40W	59.24	60.24	1.7	21.03	22.08	5.0
42W CFL Standard	83.96	85.35	1.7	29.48	30.97	5.1
42W CFL Decorative	83.96	85.35	1.7	94.51	99.37	5.1
70W CFL Decorative	83.96	85.35	1.7	70.04	73.63	5.1
32W Compact Flourescent	51.51	52.40	1.7	87.87	92.38	5.1
2x14W T5 Fluoro	75.17	76.43	1.7			
2x24W T5 Fluoro	67.59	68.71	1.7			

Traditional luminaire type	Opex revised proposal	Opex final decision	% difference	Capex revised proposal	Capex final decision	% difference
50W High Pressure Sodium	101.51	103.19	1.6			
50W High Pressure Sodium - Twin Arc	72.64	73.84	1.7	27.76	29.16	5.1
70W High Pressure Sodium	96.32	97.91	1.7	28.62	30.07	5.1
70W High Pressure Sodium - Twin Arc	66.71	67.82	1.7	30.14	31.67	5.1
100W High Pressure Sodium	96.32	97.91	1.7			
120W High Pressure Sodium	112.68	113.99	1.2			
150W High Pressure Sodium	112.68	113.99	1.2	55.54	58.00	4.4
150W High Pressure Sodium - Twin Arc	103.92	105.14	1.2	57.38	59.94	4.5
220W High Pressure Sodium	95.28	96.48	1.3			
250W High Pressure Sodium	95.28	96.48	1.3	55.54	58.00	4.4
250W High Pressure Sodium - Twin Arc	114.82	116.22	1.2	63.72	66.61	4.5
2x250W High Pressure Sodium	119.92	121.33	1.2			
310W High Pressure Sodium	95.28	96.48	1.3			
360W High Pressure Sodium	95.14	96.49	1.4	66.55	69.59	4.6
400W High Pressure Sodium	95.14	96.49	1.4	66.55	69.59	4.6
400W High Pressure Sodium - Twin Arc	109.78	111.09	1.2	69.93	73.13	4.6

Traditional luminaire type	Opex revised proposal	Opex final decision	% difference	Capex revised proposal	Capex final decision	% difference
400W MH Standard Luminaire	109.78	111.09	1.2	68.66	71.80	4.6
2x400W High Pressure Sodium	151.99	153.95	1.3			
3x400W High Pressure Sodium	173.03	175.36	1.3			
600W High Pressure Sodium	160.27	162.45	1.4			
1000W High Pressure Sodium	139.92	141.68	1.3			
Incandescent 60	70.96	72.15	1.7			
Incandescent 75	70.96	72.15	1.7			
Incandescent 100	70.96	72.15	1.7			
Incandescent 150	70.96	72.15	1.7			
Incandescent 200	70.96	72.15	1.7			
Incandescent 300	70.96	72.15	1.7			
Incandescent 500	70.96	72.15	1.7			
Incandescent 1500	70.96	72.15	1.7			
55W Low Pressure Sodium	107.27	109.12	1.7	55.54	58.00	4.4
100W Low Pressure Sodium	225.23	229.01	1.7	55.54	58.00	4.4
135W Low Pressure Sodium	349.29	353.26	1.1			
150W Low Pressure Sodium	349.29	353.26	1.1			

Traditional luminaire type	Opex revised proposal	Opex final decision	% difference	Capex revised proposal	Capex final decision	% difference
310W Low Pressure Sodium	349.29	353.26	1.1			
70W Metal Hallide	87.20	88.51	1.5			
150W Metal Hallide	87.20	88.51	1.5			
250W Metal Hallide	87.20	88.51	1.5	55.54	58.00	4.4
400W Metal Hallide	90.59	92.00	1.6	55.54	58.00	4.4
1000W Metal Hallide	139.92	141.68	1.3	86.28	90.33	4.7
50W Mercury Vapour	54.29	55.22	1.7	21.03	22.08	5.0
80W Mercury Vapour	53.67	54.58	1.7	21.03	22.08	5.0
125W Mercury Vapour	73.07	74.29	1.7			
250W Mercury Vapour	98.97	100.20	1.2	55.54	58.00	4.4
400W Mercury Vapour	93.15	94.37	1.3	55.54	58.00	4.4
2x400W Mercury Vapour	100.31	101.46	1.1	55.54	58.00	4.4
250W HPS Asymetric Floodlight	95.28	96.48	1.3	76.60	80.15	4.6
400W HPS Asymetric Floodlight	95.14	96.49	1.4	78.30	81.94	4.7
250W MH Asymetric Floodlight	87.20	88.51	1.5	73.48	76.87	4.6
400W MH Asymetric Floodlight	90.59	92.00	1.6	76.60	80.15	4.6

Shortened forms

Term	Definition
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
capex	capital expenditure
CCP26	Consumer Challenge Panel, sub-panel 26
CPI	consumer price index
F&A	framework and approach
LED	light-emitting diode
NEM	national electricity market
NER	national electricity rules
NMI	national meter identifier
opex	operating expenditure
PE cell	photoelectric cell
RBA	Reserve Bank of Australia
RIN	regulatory information notice
WACC	weighted average cost of capital