FINAL DECISION

AusNet Services
Distribution Determination
2021 to 2026

Attachment 16
Alternative control services

April 2021

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's final decision on the distribution determination that will apply to AusNet Services for the 2021–26 regulatory control period. It should be read with all other parts of the final decision.

The final decision includes the following attachments:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency benefit sharing scheme

Attachment 9 – Capital expenditure sharing scheme

Attachment 10 – Service target performance incentive scheme

Attachment 12 – Customer service incentive scheme

Attachment 13 – Classification of services

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Attachment A – Negotiating framework

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16 Alternative control services

This attachment sets out our final decision on prices, or revenues, AusNet Services is allowed to charge, or recover from, customers for the provision of alternative control services (ACS):

- ancillary network services,
- public lighting services, and
- metering services.

Alternative control services are customer specific or customer requested services and so the full cost of the service is attributed to that particular customer, or group of customers, benefiting from the service. We set service specific prices or revenues to provide a reasonable opportunity to the distributor to recover the efficient cost of each service from customers using that service.

For more information on the classification of services and the form of control applied to each of the above services, see Attachment 13 − Classification of services, Attachment 14 − Control mechanisms and/or our final *Framework and Approach* (F&A) paper for the Victorian distributors.[1]

16.1 Ancillary network services

Ancillary network services share the common characteristic of being non-routine services provided to individual customers as requested. Our F&A paper outlines several types of services that can be considered as meeting this broad definition.[2] For ease of reference, ancillary network services in this attachment is to be taken to refer to the following service groupings, unless further explanation is provided:[3]

- Auxiliary metering services
- Basic connection services
- Connection application and management services
- Network ancillary services.

Ancillary network services are either charged on a fee or quotation basis, depending on the nature of the service.

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

2 AER, *Final framework and approach: AusNet Services, CitiPower, Jemena, Powercor and United Energy: Regulatory control period commencing 1 January 2021*, January 2019, pp. 29–34 and 100–104.

3 AER, *Final framework and approach: AusNet Services, CitiPower, Jemena, Powercor and United Energy: Regulatory control period commencing 1 January 2021*, January 2019, pp. 29–34 and 105–110.

We generally determine fee-based service price caps for the next regulatory control 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.

By comparison, prices for quoted services are based on quantities of labour and materials, with the quantities dependent on a particular task. Prices for quoted services are determined at the time of a customer's enquiry and reflect the individual requirements of the customer's service request. For this reason, it is not possible to list prices for quoted services in our decision. However, our final decision sets labour rates to be applied to ancillary network services provided on a quotation basis.

16.1.1 Final decision

Fee-based and quoted services

Our final decision, is to:

- Accept all but one of AusNet Services' proposed fee-based service prices. We do not accept the proposed price for security lighting reasonably reflects the efficient costs of providing these services. Our final decision substitutes the price with one we consider does reasonably reflect the efficient costs.
- Accept all but one of AusNet Services' proposed labour rates for quoted services. We do not accept the proposed senior engineer labour rates are efficient. Our final decision substitutes these labour rates with those we consider to be efficient.
- Simplify AusNet Services' four meter test services to two meter test services. In response to AGL's submission, AusNet Services stated it was amenable to simplifying its meter test services.

In our final decision, we adjust AusNet Services' proposed prices for year one (2021–22) of the 2021–26 regulatory control period for:

- actual inflation so the prices for the 2021–22 regulatory year are in nominal terms (see A Ancillary network services prices of this attachment)
- our final decision labour price growth forecasts, and
- our final decision nominal vanilla weighted average cost of capital (WACC) (see Attachment 3 – Rate of return).

Note on proposal of new services at the revised proposal stage

AusNet Services only proposed the 'Security and watchmen lights' service—and associated price—in its revised proposal.

Introducing services in revised proposals limits the extent to which stakeholders can consult and provide comments on the proposal. Our consumer engagement guideline highlights the significance of customer engagement for expenditure proposals.[4]

Stronger consumer engagement can assist in the assessment of service providers' expenditure proposals, and can raise alternative views on matters such as service priorities, capital expenditures and price structures.

X factors for ancillary network services

We determine the prices and labour rates for AusNet Services' ancillary network services in the first year of the 2021–26 regulatory control period. For each year thereafter, the prices and labour rates are determined by a price cap control mechanism that adjusts prices for inflation, an X factor and any relevant adjustments. Our final decision price cap control mechanism is set out in Attachment 14 – Control mechanisms.

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. In particular, we average wage price index growth forecasts from Deloitte Access Economics and BIS Oxford Economics to determine the X factors.

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 16.17 in A Ancillary network services prices of this attachment.

16.1.2 AusNet Services' revised proposal

AusNet Services accepted most of our draft decision on the prices for its fee-based services and its labour rates for quoted services. AusNet Services' revised proposal included a schedule of prices that is largely consistent with our draft decision.[5]

In response to our draft decision on fee-based services, AusNet Services:

- Identified additional costs for single phase connection services related to its own contractor's priority connections fees.[6] This led to an increase in the prices charged for single phase connection services in comparison to the initial proposal.
- Added a new fee-based ancillary network service for security and watchmen lights, consistent with our F&A.[7] [8] The year one price for this service was calculated to be

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4 AER, *Better regulation: Consumer engagement guideline for network service providers*, November 2013, p. 5.

5 AusNet Services, *Revised Regulatory Proposal 2022–26*, December 2020, pp. 187–189.

6 AusNet Services, *Revised Regulatory Proposal 2022–26*, December 2020, p. 186.

7 AusNet Services, *Revised Regulatory Proposal 2022–26*, December 2020, pp. 188–189; AER, *Final framework and approach for AusNet Services, CitiPower, Jemena, Powercor and United Energy*, January 2019, pp. 33–34.

8 AusNet Services (along with Jemena) has proposed to operate and maintain security and watchmen lights but not their installation as an alternative control service in the 2021–26 regulatory control period. The other Victorian distributors are offering to install them as a quoted service with no additional fee to operate and maintain them.

equal to the average expected mercury vapour public lighting price over the regulatory control period.

For quoted services, AusNet Services:

- Amended its labour rates to include a margin, where the resultant rates would be below our consultant's maximum recommended total hourly rates.[9]
- Added a new senior engineer labour rate.[10] The proposed labour rate was higher than the labour rate we consider is efficient.

AusNet Services' revised proposal did not explicitly comment on the X factors to apply to ancillary network services. However, its modelling used the same approach that we accepted in the draft decision, which was to use labour price growth forecasts as the X factor.

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).[11]

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 focusses on comparing AusNet Services' proposed labour rates against maximum total labour rates, which we consider efficient.

Where AusNet Services' 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 AusNet Services' proposed ancillary network services prices against its prices for the 2016–20 regulatory control period and other relevant distributors. We made further adjustments to AusNet Services' ancillary network services prices where we considered it appropriate to do so.

Origin Energy noted in its submission that alternative control services can impose significant costs on customers. As such, Origin Energy appreciated the efforts made in examining the underlying cost structures associated with alternative control services.[12]

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9 AusNet Services, *Revised Regulatory Proposal 2022–26*, December 2020, pp. 190–191.

10 AusNet Services, *Revised Regulatory Proposal 2022–26*, December 2020, p. 191.

11 NER, cl. 6.2.6(c).

12 Origin Energy, *Submission on the Victorian EDPR Revised proposal and draft decision 2021–26*, January 2021, p 2.

16.1.4 Reason for final decision

Sections 16.1.4.1 and 16.1.4.2 discuss our reasons for our final decision on AusNet Services' revised proposal where it has not accepted our draft decision or where it proposed new matters not considered in our draft decision.

Section 16.1.4.3 sets out our consideration of issues raised by AGL on the regulation of ancillary network services in general.

16.1.4.1 Fee-based services

Increase in single phase connection service prices

We accept AusNet Services' proposal to increase the price for its single phase overground and underground connection services by an additional 3.7 per cent of its contractor's fees. We are satisfied the increase reflects the efficient costs AusNet Services incurs in the provision of these services.

AusNet Services' cost build up model forecasts that seven per cent of its single phase connection services are a priority connection.[13] Priority connections occur when AusNet Services' contractor reschedules its works program (for example, due to weather or customer service issues). This leads to the contractor charging additional fees to complete the newly prioritised connections. As a result, AusNet Services increased the price of those services by seven per cent of its contractor's priority connection fee to reflect its additional costs.

In an information request, we requested AusNet Services provide reasons for using the seven per cent forecast, and whether it was based on a historical average. AusNet Services confirmed in its response that the probability was based on historical data. However, it had updated its analysis to propose a new probability of 3.7 per cent.[14]

Based on this additional information, we are satisfied the increase in prices by 3.7 per cent of AusNet Services' contractor's priority connection fees is efficient, as it reflects AusNet Services' actual costs of providing the service.

Security and watchmen lights as a new network ancillary service

We accept AusNet Services' proposal to provide the operation and maintenance of security and watchmen lights on a fee basis as it is consistent with our F&A.[15] However, we do not accept AusNet Services' proposed price and have substituted it with the price we consider efficient.

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13 AusNet Services, *Revised regulatory proposal 2022-26 - Alternative Control - ANS fee based model*, December 2020.

14 AusNet Services, *Information request #072,* January 2021.

15 AER, *Final framework and approach: AusNet Services, CitiPower, Jemena, Powercor and United Energy: Regulatory control period commencing 1 January 2021*, January 2019, p. 33.

In developing this service, AusNet Services modelled the year one price by averaging the projected mercury vapour (MV) 80W public lighting prices over the five-year regulatory control period. AusNet Services advised that it:

- used MV public lighting prices to derive this service's price as both services have identical approaches with the same globes, luminaires and switching arrangements,[16] and
- averaged the projected MV public lighting prices to help reduce price variations for its customers.[17]

We are satisfied with AusNet Services' explanation for deriving the price of this service by using MV public lighting prices. The price reflects the efficient costs that AusNet Services will incur for MV public lighting as the two services have identical approaches.

However, we do not accept that AusNet Services' proposed security and watchmen lights year one price is efficient. We see no reason to treat MV public lighting and security and watchmen lights differently by giving them different year one prices. AusNet Services' security and watchmen lights are subject to the price cap control mechanism. This means that regardless of the year one price, consumers will experience the same annual price variations due to inflation and X factors.

Furthermore, because security and watchmen lighting is an ancillary network service, we apply the labour price growth forecasts as the X factor (see section 16.1.1). This means that consumers face greater price variability when the year one price is higher as it causes higher annual price escalations.

Consequently, we have set AusNet Services' new security and watchmen lighting year one price to be equal to its MV lighting year one price. AusNet Services has accepted this year one price.[18]

Simplification of AusNet Services' meter accuracy tests

Our final decision consolidates AusNet Services' four single and multi-phase meter equipment test services with two equipment test services that will cover both types of meters. We consider the prices proposed by AusNet Services in response to an information request allows it to recover its efficient costs and responds to stakeholder requests to simplify its services.

In response to our draft decision, AGL submitted there was scope for AusNet Services to simplify its meter accuracy test services to be consistent with the other Victorian

16 AusNet Services, *Information request #072,* January 2021.
17 AusNet Services, *Information request #072,* January 2021.
18 AusNet Services, *Information request #072,* January 2021.

distributors.[19] AGL also requested AusNet Services to clarify the differences between its meter accuracy tests.[20]

To advance AGL's considerations, we requested AusNet Services to provide additional information on these services and whether it was amenable to simplifying them.

AusNet Services responded that it has different prices for single and multi-phase meter accuracy tests because each phase of the meter is tested separately. This means that a multi-phase meter accuracy test would take longer than a single phase test. It also noted that its proposed price for a multi-phase meter accuracy test was similar in price to a single-phase meter test plus an additional single-phase meter.[21]

However, AusNet Services was amenable to simplifying its meter accuracy test services if a weighted average is applied. The weighted average price is derived by applying a weighting of 87 per cent to the price of tests for single-phase tests and 13 per cent to multi-phase tests. These percentages are the indicative volumes of each service that AusNet Services expects to provide in 2021–22.[22] The single price for the four services and the two weighted average prices are set out in Table 16.1.

Table 16.1 Meter test service prices, information request response ($2020–21)

Service	Meter test unit rate	Additional meter unit test rate
Meter equipment test – Single Phase	$297.72	$66.40
Meter equipment test – Multi Phase	$359.85	$98.37
Weighted average	$304.22	$70.14

Source: AusNet Services, *Information request #077,* February 2021.

We consider AusNet Services' method for deriving its weighted average prices is practical and intuitive. The resultant prices are heavily weighted towards the single phase price, which is much lower than the multi-phase price. Therefore, to ensure consistency between the Victorian distributors, we removed the distinction between phases for meter equipment tests and replace them with a single meter test rate and a single additional meter test rate. The new prices will be the weighted average of AusNet Services' previously proposed prices we previously accepted.

19 AGL, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26*, January 2021, p. 3.
20 AGL, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26*, January 2021, p. 3.
21 AusNet Services, *Information request #077,* February 2021.
22 AusNet Services, *Information request #077,* February 2021.

16.1.4.2 Quoted services

This section sets out our final decision on the labour rates AusNet Services uses for its quoted services. Our final decision on AusNet Services' proposed inclusion of a tax allowance in the quoted services control mechanism formula is set out in Attachment 14 – Control mechanisms.

The addition of margin to AusNet Services' quoted service labour rates

We accept AusNet Services proposal to apply a margin to its quoted service labour rates because:

- margins are included in the maximum labour rates we consider efficient, and
- the revised labour rates are below the maximum rates we consider efficient.

In response to our draft decision, AusNet Services proposed to increase its quoted service labour rates (compared to our draft decision) by a margin of 4.6 per cent. The increase was justified on the basis that the maximum rates we consider efficient, developed by our consultant Marsden Jacob Associates (Marsden Jacob), included margins in the overheads allowance when deriving the maximum rates.[23] Therefore, AusNet Services applied the margin to all but one labour category (Electrical Tester Including Vehicle & Equipment) to ensure the resultant rates would be below our maximum labour rates we consider efficient.

As set out in our assessment approach, we consider labour rates that are equal to or below the maximum labour rates developed by our consultant to be efficient. Therefore, we accept AusNet Services' proposed labour rates as they are below the maximum rates.

However, in our assessment we noted AusNet Services had applied the margin twice to its business hours labour rates.[24] In response to an information request, AusNet Services confirmed the margin should apply only once.[25] We correct for this in our final decision.

We note AusNet Services' resultant labour rates are still significantly below the maximum labour rates we consider efficient. Table 16.2 compares the business hour labour rates we consider efficient with AusNet Services' proposed labour rates.

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23 AusNet Services, *Revised Regulatory Proposal 2022–26*, December 2020, p. 190.

24 AusNet Services, *Alternative Control - ANS fee based model*, 3 December 2020, 'Quoted Services'!

25 AusNet Services, *Information request #083,* February 2021.

Table 16.2 Comparison of business hour labour rates, revised proposal ($2020–21)

Service description	AER labour type	AER maximum total hourly rate – business hours	AusNet Services revised proposal (corrected for margin) – business hours
Construction Overhead Install	Field worker	$171.13	$119.17
Construction Underground Install	Field worker	$171.13	$116.39
Construction Substation Install	Field worker	$171.13	$116.39
Electrical Tester Including Vehicle & Equipment	Technical specialist	$171.13	$171.75
Planner Including Vehicle	Technical specialist	$171.13	$159.97
Supervisor Including Vehicle	Technical specialist	$171.13	$159.97
Design	Engineer	$150.14	$136.59
Drafting	Technical specialist	$171.13	$104.96
Survey	Technical specialist	$171.13	$123.63
Tech Officer	Technical specialist	$171.13	$123.63
Line Inspector	Technical specialist	$171.13	$119.17
Contract Supervision	Technical specialist	$171.13	$123.63
Protection Engineer	Engineer	$150.14	$136.59
Maintenance Planner	Technical specialist	$171.13	$123.63

Source: Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet Services: Advice to the Australian Energy Regulator*, 30 June 2020, p. 10; AusNet Services, *Alternative Control – ANS fee based model*, 3 December 2020, 'Quoted Services'!, AER analysis.

AusNet Services' new senior engineer labour rate

We accept AusNet Services' proposal to include a new labour rate for senior engineers. However, we have substituted AusNet Services' proposed rate with the maximum labour rate we consider efficient.

In its revised proposal, AusNet Services stated that the proposed new labour category was for additional engineers to manage the increased number of large connections on its distribution network.[26] Table 16.3 compares the business hour labour rates we consider efficient with AusNet Services' proposed labour rates.

Table 16.3 Comparison of senior engineer labour rates, revised proposal ($2020–21)

Service description	AER labour type	AER final decision maximum total hourly rate – business hours	AusNet Services revised proposal – business hours
Senior Engineer	Senior Engineer	$196.34	$244.84

Source: Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet Services: Advice to the Australian Energy Regulator*, 30 June 2020, p. 10; AusNet Services, *Alternative Control – ANS fee based model*, 3 December 2020, 'Quoted Services'!.

To calculate its proposed rate, AusNet Services:

- averaged our consultant's maximum recommended senior engineer rate with Australian Energy Market Operator's (AEMO's) charge-out rate for engineers ($270), then
- applied a margin consistent with the approach discussed in section 16.1.4.2.[27]

AusNet Services justified the higher price by citing the increased demand for senior engineers due to an increase in renewable projects.[28]

AusNet Services considered it appropriate to include the AEMO engineer call-out rate in deriving its proposed rates for two reasons:

- The skillsets involved in connecting large customers at the distribution level were broadly similar to connecting them at the transmission level.
- AusNet Services competes with AEMO for the same pool of senior engineers and therefore AEMO's rates are reflective of the market tested costs that it faces. [29]

We are not satisfied that AusNet Services' proposed rate for senior engineers is efficient. We consider the rationale behind proposing a higher rate for senior engineers (compared to our maximum labour rate) was not supported by the evidence.

First, we note Marsden Jacob's method to derive its benchmark efficient maximum labour rates for senior engineers. It used the highest salaries in the Hays 2019–20 energy sector salary data to derive labour rates with a bottom-up model. We consider

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[26] AusNet Services, *Revised Regulatory Proposal 2022–26*, December 2020, p. 191.

[27] AusNet Services, *Revised Regulatory Proposal 2022–26*, December 2020, p. 191; AusNet Services, *Alternative Control - ANS fee based model*, 3 December 2020, 'Quoted Revised Proposal 2021'!

[28] AusNet Services, *Revised Regulatory Proposal 2022–26*, December 2020, p. 191.

[29] AusNet Services, *Revised Regulatory Proposal 2022–26*, December 2020, p. 191.

that using the Hays salary data from the previous financial year reasonably reflects the current labour market conditions for senior engineers in the energy sector.

Second, Marsden Jacob undertook additional analysis on the senior engineer labour rate after the other Victorian distributors proposed labour rates that were significantly higher than its benchmark rates.[30] Marsden Jacob found that, according to the Hays salary data, the maximum salaries for a number of senior engineering jobs has been declining significantly in Melbourne. In comparison with other jurisdictions, the senior engineer rate in Victoria tends to be 'in the middle of the pack'.[31] In other words, the Hays salary data does not suggest an increase in demand for senior engineers.

Finally, we consider that AusNet Services provided insufficient evidence that the work of AEMO's call-out engineers is similar to AusNet Services' engineers. We requested AusNet Services to outline the similarities and differences in the skills and responsibilities of its engineers and AEMO's engineers in greater detail. AusNet Services explained that while its engineers have similar modelling skills and level of experience compared to AEMO's, they have different areas of focus.[32]

To support its proposal, AusNet Services provided a table comparing the skills and experience required in an AEMO lead engineer job advertisement with one of its own job advertisements. The table mostly consisted generic criteria such as relevant tertiary qualifications and experience, leadership skills and willingness to support others. The comparison did not provide a specific list of common tasks or responsibilities that could support the claim that the two jobs were similar enough to compare labour rates.

This lack of detail makes it difficult to assess with any degree of certainty that the two engineering roles are comparable. There remains the possibility that AEMO's engineers may have different responsibilities that would merit additional compensation. Alternatively, AEMO may have other cost drivers unrelated to salary that could explain the difference between the labour rates.

For these reasons, we do not believe there is a reasonable justification in applying a labour rate that is higher than Marsden Jacob's. As a result, we have substituted in our efficient rate being the Marsden Jacob's recommended senior engineer rate, escalated by forecast labour price growth for 2021–22. We note that the other Victorian distributors have already accepted our decision to apply Marsden Jacob's senior engineer labour rate (or otherwise proposed senior engineer labour rates lower than Marsden Jacob's).[33]

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30 Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet Services: Advice to the Australian Energy Regulator*, 30 June 2020, pp. 12–13.

31 Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet Services: Advice to the Australian Energy Regulator*, 30 June 2020, p. 12.

32 AusNet Services, information request #072, January 2021.

33 CitiPower, *Revised Regulatory Proposal 2021–26*, December 2020, p. 127; Jemena, *Revised Regulatory Proposal 2021–26: ATT 09-01 Response to the AER's draft decision - Alterative control services*, December 2020, p. 28; Powercor, *Revised Regulatory Proposal 2021–26*, December 2020, p. 141; United Energy, *Revised Regulatory Proposal 2021–26*, December 2020, p. 124.

16.1.4.3 Issues raised on the regulation of ancillary network services

In its submission, AGL considered there is scope to improve the regulation of ancillary network services by standardising and simplifying the services that distributors offer.[34] This would allow retailers operating across the five distribution regions in Victoria to streamline their operations. For example, AGL noted how each Victorian distributor had different criteria on how they charged their connection service fees.

We agree with the feedback from AGL that there is potential to standardise and simplify the ancillary network services offered across distributors and even across jurisdictions. The distributors different naming conventions, criteria for services, and service descriptions makes it difficult for us and other stakeholders to compare and benchmark prices. The standardisation and simplification of ancillary network services is an issue that merits further investigation in the future.

AGL further noted that it was important for distributors to justify differences in their after-hours rates with their business-hours rates. AGL considered distributors should not automatically assume their after-hours rates can be automatically marked up by 75 per cent.[35] This was in reference to the Marsden Jacob recommendation that after-hours labour rates be capped at 1.75 times the relevant ordinary rate.

In AusNet Services' case, most of its after-hours labour rates were above the 75 per cent mark-up cap recommended by Marsden Jacob. In our draft decision, we substituted those after-hours rates to reflect that cap, which AusNet Services accepted as part of its revised proposal. We will continue to monitor the after-hour mark-ups in future determinations.

16.2 Metering

We are responsible for the economic regulation of the regulated metering services provided by the Victorian distributors. Metering services include the maintenance, reading, data services and recovery of capital costs related to installing meters.

Metering assets are used to measure electrical energy flows at a point in the network to record consumption for the purposes of billing, and include:

- type 5 (interval) and type 6 (accumulation) meters, including meters installed as part of the Advanced Metering Infrastructure (AMI or smart metering) program in Victoria, which are classified as type 5-6 meters, and
- type 7 meters, which relate to unmetered connections with predictable energy consumption patterns (such as public lighting connections).

Unlike other jurisdictions in the National Electricity Market (NEM), the Victorian distributors are the monopoly providers of most metering services, including smart

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[34] AGL, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26*, January 2021, pp. 2–3.

[35] AGL, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26*, January 2021, p. 2.

metering services. Since 2017, metering services have become contestable services in some jurisdictions and can be provided by a retailer or a third party instead, but not in Victoria.[36]

AusNet Services' current meter population comprises of 98.6 per cent AMI meters and 1.4 per cent non-AMI meters.[37]

In this section, we explain our final decision for AusNet Services on the following metering services:

- Type 5 and 6 (incl. smart metering) services, and
- Metering exit fees.

Our final decision on other regulated metering services (for example, type 7 metering services and auxiliary metering services other than metering exit fees) is set out in section 16.1.1 on ancillary network services.

16.2.1 Final decision

Our final decision is to:

- Not accept AusNet Services' proposed cost allocations between alternative control services to standard control services for the following IT and communication system costs:
    - Mesh (UIQ)-WiMax licenses (operating expenditure (opex)) and mesh network maintenance (capital expenditure (capex))
    - Telstra backhaul costs.

  We apply our draft decision allocations of these costs being 94 per cent to alternative control services and 6 per cent to standard control services.
- Not accept AusNet Services' proposed revenues for type 5 and 6 (incl. smart metering) services.

  We substitute alternative revenues for type 5 and 6 (incl. smart metering) services calculated by:
    - applying our alternative cost reallocation calculations, and
    - applying our final decision rate of return, labour price growth forecasts, and inflation forecasts consistent with standard control services.
- Not accept AusNet Services' proposed metering exit fees.

  We substitute alternative charges based on our changes to forecast capex and opex.

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[36] In some instances, a customer is charged for metering services from both the distributor and retailer. More information on these arrangements can be found in the AER's distribution determination for each distributor.

[37] AusNet Services, *Metering Asset Management Strategy - Part 1,* January 2020, p.11.

In our final decision, we adjust AusNet Services metering model to derive charges for year one (2021–22) of the 2021–26 regulatory control period for:

- actual inflation and inflation forecast consistent with standard control services,
- our final decision labour price growth forecasts, and
- our final decision nominal vanilla WACC (see Attachment 3 – Rate of return).

Our final decision also includes an adjustment in the first year (2021–22) of the 2021–26 regulatory control period to true-up the allowed revenue amounts we set for the six-month extension period (see section 16.2.1.5).

16.2.1.1 Allocation of AMI IT and communication costs

We do not accept AusNet Services' proposed reallocation of certain AMI communication and IT costs from alternative to standard control services. Our final decision on the allocation between alternative and standard control services is set out in Table 16.4 below.

Table 16.4 Final decision – AusNet Services' allocation of AMI IT and communication costs

System	Current allocation	Initial proposal	Draft decision	Revised proposal	AER final decision
CAPEX					
CNMS Lifecycle Management for reporting and (monitoring)	100% ACS	50%:50% ACS:SCS	94%:6% ACS:SCS	94%:6% ACS:SCS	94%:6% ACS:SCS
UIQ	100% SCS	100% SCS	100% SCS	100% SCS	100% SCS
3G phase out	50%:50% ACS:SCS	50%:50% ACS:SCS	50%:50% ACS:SCS	50%:50% ACS:SCS	50%:50% ACS:SCS
Wimax network asset maintenance	50%:50% ACS:SCS	50%:50% ACS:SCS	50%:50% ACS:SCS	50%:50% ACS:SCS	50%:50% ACS:SCS
Mesh network asset maintenance	100% ACS	50%:50% ACS:SCS	94%:6% ACS:SCS	80%:20% ACS:SCS	94%:6% ACS:SCS
PolicyNet (mesh lifecycle management)	100% SCS	100% SCS	100% SCS	100% SCS	100% SCS
OPEX					
Mesh (UIQ) and WiMax (Policy Net)	100% ACS	50%:50% ACS:SCS	94%:6% ACS:SCS	80%:20% ACS:SCS	94%:6% ACS:SCS
EnergyIP (EIP)	100% ACS:SCS	50%:50% ACS:SCS	50%:50% ACS:SCS	50%:50% ACS:SCS	50%:50% ACS:SCS
CIS	100% SCS	100% SCS	100% SCS	100% SCS	100% SCS
Reporting and Monitoring GD	50%:50% ACS:SCS	50%:50% ACS:SCS	50%:50% ACS:SCS	50%:50% ACS:SCS	50%:50% ACS:SCS

System	Current allocation	Initial proposal	Draft decision	Revised proposal	AER final decision
Telstra Backhaul	100% ACS	50%:50% ACS:SCS	94%:6% ACS:SCS	64%:36% ACS:SCS	94%:6% ACS:SCS
DMACS	50%:50% ACS:SCS	50%:50% ACS:SCS	50%:50% ACS:SCS	50%:50% ACS:SCS	50%:50% ACS:SCS
IBM	95%:5% ACS:SCS	95%:5% ACS:SCS	95%:5% ACS:SCS	95%:5% ACS:SCS	95%:5% ACS:SCS

Note: ACS is alternative control services, SCS is standard control services

Sources: AER analysis; AusNet Services, *Electricity Distribution Price Review 2022–26 Appendix 9D*, January 2020, pp.4–6.

16.2.1.2 Type 5 and 6 (incl. smart metering) services revenue

Our final decision allows a revenue requirement for type 5 and 6 (incl. smart metering) services for the 2021–26 regulatory control period of $300.79 million ($nominal) compared to AusNet Services' proposed $291.09 million ($nominal).

Table 16.5 sets out our approved revenue requirement for the 2021–26 regulatory control period.

Table 16.5 Final decision – metering annual revenue requirement for the 2021–26 regulatory control period ($ nominal)

	2021–22	2022–23	2023–24	2024–25	2025–26
Depreciation	27.06	30.02	32.73	35.30	37.53
Return on capital	10.07	9.30	8.38	7.37	6.31
Opex[a]	15.62	16.25	16.83	17.29	17.75
Net tax allowance	3.10	2.34	2.35	2.57	2.84
Unsmoothed revenue requirement	55.85	57.91	60.29	62.54	64.44
X factor (%)[b]	-21.60%	-0.75%	-0.75%	-0.75%	-0.75%
Smoothed revenue requirement	56.92	58.50	60.11	61.78	63.48

Source: AER, *Final decision AusNet Services – distribution determination 2021–26 – Metering PTRM*, April 2021.

(a) Opex includes debt raising costs.

(b) The X factor for metering services from 2022–23 to 2025–26 will be revised to reflect the annual return on debt update. Under the CPI–X framework, the X factor measures the real rate of change in annual expected revenue from one year to the next. A negative X factor represents a real increase in revenue. Conversely, a positive X factor represents a real decrease in revenue.

Having calculated the total revenue requirement for the 2021–26 regulatory control period, we smooth the revenue for each regulatory year across that period. This step reduces revenue variations between years, and calculates the expected revenue and X factor for each year. The X factors equalise (in net present value terms) the total expected revenues to be earned by the distributor with the total revenue requirement for the 2021–26 regulatory control period. For AusNet Services, this net present value is $262.81 million ($2020–21).

16.2.1.3 Metering charges

Our final decision will lead to a higher net present value of AusNet Services' total metering revenue (smoothed) over the 2021–26 regulatory control period than that proposed by AusNet Services in its revised proposal. As metering services[38] are subject to a revenue cap, we have not set metering charges in this final decision. Actual metering charges will be approved during our annual pricing process.

Broadly we expect the price path to follow the X factors included in Table 16.5 and Table 16.6. Table 16.6 provides the first year adjustment (2021–22) relative to the revenues the last year of the 2016–20 regulatory control period and X factors for remaining years of 2021–26 regulatory control period. We further note that negative first year adjustments and X factors reflect increases in revenues due to the CPI–X revenue control formula.Table 16.7 sets out the expected or 'smoothed' revenue for the 2021–26 regulatory control period.

Table 16.6 Final decision first year adjustments and X factors for remaining years of 2021–26 regulatory control period (per cent)

	2021–22	2022–23	2023–24	2024–25	2025–26
Proposal	7.23[1]	-0.89	-0.89	-0.89	-0.89
Draft decision	-20.54[1]	0.00	0.00	0.00	0.00
Revised proposal	-18.16	0.00	0.00	0.00	0.00
Final decision	-21.60	-0.75	-0.75	-0.75	-0.75

Source: AER, *Draft decision AusNet Services, distribution determination 2021–26 – Metering PTRM*, September 2020; AusNet Services, *Electricity distribution price review 2022–26 – Supporting document – Metering PTRM – FY22-26*, January 2020; AusNet Services, *Electricity distribution price review 2022–26 – Supporting document – EDPR 2022–26 Revised proposal – PTRM model (2022–26)*; *AER, Final decision AusNet Services – distribution determination 2021–26 – Metering PTRM*, April 2021.

Note: AusNet Services' initial proposed first year adjustment was calculated from its proposed 2021 revenue for the six-month extension period 1 January 2021 to 30 June 2021, doubled to account for a full year, and does not include any adjustments to reflect our 2016 final decision on AMI transition charges applications. The first year movement for our final decision is calculated from approved 2020 revenue, and indexed to $2020–

[38] AER, *Final framework and approach: AusNet Services, CitiPower, Jemena, Powercor and United Energy - Regulatory control period commencing 1 January 2021*, January 2019. See also attachment 14 of this draft decision.

21 for comparison. This 2020 approved revenue that has been used as a base includes a downward adjustment as a result of our December 2016 final decision on AMI transition charges applications. Accordingly our final decision first year adjustment is not comparable to AusNet Services' proposed first year adjustment.

Table 16.7 Final decision smoothed revenue 2021–26 ($ million, nominal)

Smoothed revenue	2021–22	2022–23	2023–24	2024–25	2025–26	Total
Proposal	54.76	56.60	58.51	60.47	62.51	292.85
Draft decision	56.64	57.98	59.36	60.77	62.21	296.95
Revised proposal	55.52	56.84	58.19	59.57	60.98	291.09
Final decision	56.92	58.50	60.11	61.78	63.48	300.79

Source: AER, *Draft decision AusNet Services – distribution determination 2021–26 – Metering PTRM*, September 2020; AusNet Services, *Electricity distribution price review 2022–26 – Supporting document – Metering PTRM – FY22–26*, January 2020; E*lectricity distribution price review 2022–26 – Supporting document – EDPR 2022-26 Revised proposal – PTRM model (2022–26)*, December 2020; AER, *Final decision AusNet Services – distribution determination 2021–26 – Metering PTRM*, April 2021.

16.2.1.4 Metering exit fees

Our final decision metering exit fees reflect adjustments we made to the building block components for type 5 and 6 (incl. smart metering) revenue. These metering exit fees reflect:

- apportionment of the meter, IT, communications, and any other regulated asset base to reflect foregone revenue based on the average remainder of life of an asset
- administration costs of removing the meter
- tax allowances, and other relevant costs.

These costs are sourced from the calculations of the building block components for type 5 and 6 (incl. smart metering) revenue, and are therefore subject to the same assessment and reasoning as for the type 5 and 6 (incl. smart metering) revenue.

Our final decision metering exit fees for 2021–22 are set out in B Type 5 and 6 (incl. smart metering) metering exit fees. Prices for subsequent years will be determined by the control mechanism formula set out in Attachment 14 – Control Mechanisms. Our final decision on the X factors for metering exit services is also set out in B Type 5 and 6 (incl. smart metering) metering exit fees.

16.2.1.5 True-up for six month extension period

Our final decision also includes an adjustment of $14,989 ($2020–21) in the first year (2021–22) of the 2021–26 regulatory control period to true-up the allowed revenue amounts we set for the six-month extension period. We used a placeholder WACC to determine the allowed revenues for the six-month extension period. Now that the

actual WACC has been determined for this period, an adjustment is required to account for the differences between the placeholder and actual WACCs.

The adjustment will be made through the C factor as set out in Attachment 14 – Control mechanisms. The true up for the placeholder WACC is discussed further in Attachment 3 – Rate of return.

16.2.2 AusNet Services' revised proposal

AusNet Services accepted most aspects of our draft decision for metering services, except for our allocation of some type 5 and 6 IT and communication systems costs from alternative to standard control services.

AusNet Services also made changes relating to the labour price growth forecasts and inflation.

16.2.2.1 Cost allocation

AusNet Services did not accept our draft decision cost allocation of 94 per cent to alternative control services and 6 per cent to standard control services for its Mesh (UIQ[39])-WiMax licenses, mesh network asset maintenance and Telstra Backhaul.[40]

In response, AusNet Services proposed a revised allocation for:

- Mesh (UIQ)-WiMax licenses (opex) and mesh network maintenance (opex and capex) of 80 per cent to alternative control services and 20 per cent to standard control services, and
- Telstra Backhaul of 64 per cent to alternative control services and 36 per cent to standard control services as set out in Table 16.8.[41]

AusNet Services allocation of Mesh licenses and mesh network asset maintenance costs is driven by the relative costs of its UIQ and SIQ[42] licence fees. This differs from AusNet Services initial proposal to allocate these costs based on meter data volumes.

For its Telstra backhaul costs, AusNet Services continued to use meter data volumes to allocate costs. However, an adjustment was made to account for the smaller size of power quality data required to support is standard control services, which resulted in an allocation of 64 per cent to alternative control services and 36 per cent to standard control services.[43]

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39 UIQ is the main application providing core metering functions.

40 AusNet Services, *Revised Regulatory Proposal 2022–26*, December 2020, p.179.

41 AusNet Services, *Revised Regulatory Proposal 2022–26*, December 2020, p.179.

42 SIQ is a complementary product to collect additional information such as power quality (standard control services).

43 AusNet Services, *Information Request #066*, December 2020

AusNet Services also submitted that collection of power quality data from only 1 per cent of meters (as per our draft decision) would erode benefits from smart meters, including reduced ability to detect faults and monitor the network[44] as discussed under section 16.2.4.1.

Table 16.8 AusNet Services proposed allocation of AMI communication capex and opex

Reallocation of AMI comms capex and opex	AusNet initial proposal	AER draft decision	AusNet revised proposal	Reason for allocation
Mesh (UIQ) Licensing Opex and Mesh network asset maintenance (Capex)	50% ACS 50% SCS	94% ACS 6% SCS	80% ACS 20% SCS	AusNet Services noted UIQ & Mesh licenses cover annual support and maintenance costs for UIQ and SIQ. SIQ licence is used for SCS purposes so allocated this licence component to SCS.
Telstra Mesh 'Backhaul'	50% ACS 50% SCS	94% ACS 6% SCS	64% ACS 36% SCS	AusNet Services noted Telstra charges cover the transport of all data collected from its meters to internal systems. AusNet Services revised its allocation based on data volumes 64% ACS and 34% SCS; while more data is collected by SIQ (used exclusively for SCS purposes), the size of data is much smaller.

Source: AusNet Services, *Revised Regulatory Proposal 2022–26*, 3 December 2020, p.179.

16.2.2.2 Type 5 and 6 (incl. smart metering) services revenue requirement

AusNet Services revised proposal included a revenue requirement of $291.1 million ($ nominal) or $271.1 million ($2020–21), with $78.1 million ($2020–21) in metering capex and $73.8 million ($2021–22) in metering opex.

16.2.2.3 Annual metering charges

AusNet Services revised annual metering charges are set out in Table 16.9 below.

Table 16.9 AusNet Services proposed metering service charges ($ nominal)

Meter type	2021–22	2022–23	2023–24	2024–25
Single phase single element	62.12	62.57	63.02	63.58
Single phase two element with contactor	71.60	72.10	72.60	73.00
Multiphase	83.45	83.90	84.42	84.90

[44] AusNet Services, *Revised Regulatory Proposal 2022–26*, December 2020, p.180.

Multiphase with contactor	91.54	92.00	92.50	92.90
Multiphase CT connected	114.46	115.89	116.00	116.80

Source: AusNet Services, *Revised Regulatory Proposal 2022–26,* December 2020, p.181.

16.2.2.4 Metering exit fees

AusNet Services revised meter exit fees as set out in Table 16.10 below.

Table 16.10 AusNet Services proposed meter exit fees ($ nominal)

Meter type	2022	2022–23	2023–24	2024–25
Single phase single element	365.02	349.59	331.07	310.00
Single phase two element with contactor	361.97	346.93	328.81	308.12
Multiphase	363.69	348.45	330.11	309.22
Multiphase with contactor	363.69	348.45	330.11	309.22
Multiphase CT connected	363.86	348.59	330.23	309.32

Source: AusNet Services, *Revised Regulatory Proposal 2022–26,* December 2020, p.181

16.2.3 Assessment approach

In our final Framework and Approach, we classified type 5 and 6 (incl. smart metering) services and Metering exit services as alternative control services.[45]

16.2.3.1 Type 5 and 6 (incl. smart metering) services revenue

As type 5 and 6 (incl. smart metering) services are classified as an alternative control service, we have a greater discretion under the NER in making our assessment compared to standard control services.[46]

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 NER.[47]

Consistent with the approach adopted for our draft decision and the current regulatory control period we have chosen to apply a limited version of a building block approach[48] for our final decision.

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45 AER, *Final framework and approach: AusNet Services, CitiPower, Jemena, Powercor and United Energy - Regulatory control period commencing 1 January 2021*, January 2019.

46 NER, cl. 6.2.6(c).

47 NER, cl. 6.2.6(c).

48 The building block model calculates the allowed revenue for a regulated business for each year of the regulatory control period. Where the revenue requirement = opex + depreciation + tax + (WACC x regulatory asset base).

For our final decision we also had regard, where relevant, to:

- the wider regulatory context in determining the allocation of metering service costs, including the possibility of Victoria adopting a competitive metering framework at some point in the future
- cost allocation principles, and particularly our Cost Allocation Methodology Guideline[49] and the approved Cost Allocation Methodology for each distributor[50]
- consistency of approach with other regulated services, including the WACC and labour price growth forecasts used for standard control services
- comparisons between the Victorian distributors
- the Victorian distributors revised proposals, and
- stakeholder feedback in response to our draft decision.

16.2.3.2 Cost allocation

In our draft decision, we affirmed that some AMI system costs are shared costs between alternative and standard control services. We noted meter data volumes are an appropriate causal allocator of the associated shared costs.[51]

Our draft decision determined the collection of power quality data from 1 per cent of meters is sufficient to support AusNet Services distribution functions. On this basis, we determined 94 per cent of costs be allocated to alternative control services and 6 per cent to standard control services. We considered this supported not only the appropriate recovery of costs from relevant customers, but also enabled efficient price signals to be sent regarding the costs of providing the service.[52]

In assessing AusNet Services revised proposal, we focused on the scope of the causal allocator – meter data volumes – with respect to the frequency of data collection and the meter population.

Our analysis and reasons are set out in section 16.2.4.1.

16.2.3.3 Metering exit fees

Metering exit services allow the distributor to recover the written down value, as well as the efficient costs of removing and disposing, of AMI meters. This currently occurs

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The building block model requires inputs/forecasts for each year of the regulatory control period. These include; the regulatory asset base, opex, capex, interest rates, inflation and incentive payments. Our metering building block model is 'limited' because it does not include any adjustment for incentive schemes.

49 AER, *Victorian electricity distribution network service providers - cost allocation guidelines*, June 2008.

50 AusNet Services, *Electricity Distribution Cost Allocation Method*, September 2019.

51 AER, *Draft Decision AusNet Services distribution determination 2021 to 2026 Attachment 16 Alternative Control Services*, September 2020, p.3.

52 AER, *Draft Decision AusNet Services distribution determination 2021 to 2026 Attachment 16 Alternative Control Services*, September 2020, p.38-41.

when an existing site with multiple meters, such as an apartment building becomes an embedded network, resulting in the removal of existing meters.[53]

Consistent with the approach for our draft decision, the inputs we used to calculate metering exit fees for our final decision are:

- Our final decision on AusNet Services' opening metering asset base value for type 5 and 6 (incl. smart metering) services as of 1 July 2021, split into meter categories (meter, IT and communications) for the purpose of modelling the exit fee, as opposed to the broader category of 'remotely read interval meter'.
- Our final decision on forecast metering capex and opex for type 5 and 6 (incl. smart metering) services for AusNet Services' 2021–26 regulatory control period.
- Depreciation lives (meters – 15 years, communications and IT – 7 years), which we accept in this final decision.

Our analysis and reasons are set out below in section 16.2.4.

16.2.4 Reason for final decision

16.2.4.1 Cost allocation

We agree with stakeholders such as Department of Environment, Land, Water and Planning, Energy Consumers Australia (ECA), our Consumer challenge panel, sub-panel 17 (CCP17) and the Victorian electricity distributors that the AMI infrastructure and communication systems can be used to provide a range of distribution services, including standard control services.[54] As such, some of the AMI shared costs will need to be allocated to both alternative and standard control services. A view endorsed by ECA and the CCP17.[55]

ECA submitted that in a market where there is no metering competition, the allocation of costs between alternative and standard control services makes little difference to the customer who pays for the entire bundle.[56] Further, ECA submitted that, in the absence of metering competition or a need to compare metering costs across jurisdictions, it had no objection to the reallocation of costs to standard control services.[57]

In our assessment, we have been mindful to seek an appropriate allocator to apportion AMI shared costs between alternative and standard control services to ensure prices

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53 AER, *Final framework and approach: AusNet Services, CitiPower, Jemena, Powercor and United Energy - Regulatory control period commencing 1 January 2021*, January 2019

54 Department of Environment, Land, Water and Planning, *Victorian Government submission on the electricity distribution price review 2021–26*, June 2020, pp.4-5; Spencer & Co Business, *Report to ECA - Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26*, June 2020, p. 37; CCP17 *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26*, January 2021.

55 ECA, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26*, January 2021, p 18; CCP17, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26*, January 2021, p. 95.

56 ECA, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26*, January 2021, p 18.

57 ECA, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26*, January 2021, p 18.

reflect the respective underlying efficient costs. This is particularly pertinent should metering services in Victoria become contestable in the future to reduce the risk of cross-subsidies. The Victorian distributors and their competitors should face similar underlying costs in providing these services. As noted by the CCP17, AMI data can be used to support network operations, however metering remains fundamentally required for the purposes of determining energy consumption and retail competition.[58]

In our draft decision, we agreed data volumes are an appropriate driver of AMI shared costs and could be used to allocate costs. However, we did not accept AusNet Services proposed meter data requirements of collecting power quality data from 85 per cent of meters and the 50 per cent reallocation of AMI communication costs to standard control services for the following services:[59]

- AMI Network Head End Solution (WiMAX and Mesh)
- Meter Data Management System (MDMS) – EnergyIP
- Telstra costs for data usage to transport data from the AMI network; and
- Labour and support for the above systems.

Based on our assessment, we determined AusNet Services only needed to collect power quality data from 1 per cent of AMI meters to support its distribution network functions. We considered this a more appropriate allocation of costs, supporting not only the appropriate recovery of costs from relevant customers, but also enabling efficient price signals to be sent regarding the costs of providing a given service.

Collecting power quality data from 1 per cent of meters resulted in a cost allocation based on meter data volumes of 94 per cent to alternative control services and 6 per cent allocated to standard control services (See our draft decision Attachment 16 – Alternative control services, section 16.2.4 reasons for draft decision).[60]

In its revised proposal, AusNet Services accepted most of our draft decision for cost allocations, except for the allocation proportions for Mesh licensing opex, mesh network asset maintenance (capex) and Telstra mesh backhaul.[61]

Our assessment of each of these is set out below.

Mesh licensing opex and mesh network asset maintenance capex

We do not accept AusNet Services revised proposal to allocate 80 per cent of its mesh licensing opex and mesh network asset maintenance capex to alternative control

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58 CCP17, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26*, January 2021, p. 95.

59 AER, *Draft Decision AusNet Services distribution determination 2021 to 2026 Attachment 16 Alternative Control Services*, September 2020, p.38-41.

60 AER, *Draft Decision AusNet Services distribution determination 2021 to 2026 Attachment 16 Alternative Control Services*, September 2020, p.38-41.

61 AusNet Services, *Revised regulatory proposal 2022–26*, December 2020, p.179.

services and 20 per cent to standard control services. Our final decision is to maintain our draft decision allocation of 94 per cent to alternative control services and 6 per cent to standard control services. Our final decision allocations are based on the collection of power quality data from 1 per cent of the meter population.

In its revised proposal, AusNet Services changed its approach to allocate costs. Rather than allocations based on data volumes, AusNet Services allocated costs based on the license fees for UIQ and SIQ[62] applications, and where the costs are charged per meter.[63] The relative costs of the licensing agreements per meter are 80 per cent for UIQ (alternative control services) and 20 per cent for SIQ (standard control services).

In response to our information requests, AusNet Services advised it rolled out SIQ to meet new obligations in the new electricity distribution code.[64] To comply with these obligations, AusNet Services submitted that voltage (power quality) data must be collected from 100 per cent of meters associated with each feeder/substation.

We do not agree that the Electricity Distribution Code (the Code) requires AusNet Services to capture voltage data from 100 per cent of meters.[65] We consider the Code requires AusNet Services to publish an average voltage for each Voltage Control Section.[66] Rather, we consider that one efficient method to comply with the Code would be to capture voltage data for one meter (or in some circumstances a small number of meters) per Voltage Control Section and then calculate or model the control section voltage.

As such, we maintain our draft position of collecting data from 1 per cent of meters would efficiently meet this requirement. As we note below, the provision of distribution services through the AMI network should be done in an efficient manner.

In addition to the new obligations in the Code, AusNet Services also submitted that collecting data from less than 100 per cent of meters will have a material impact on existing capabilities. Any reduction in power quality data collection would erode the benefits customers receive from smart meters, including:

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62 UIQ is the main application providing core metering functions and SIQ is a complementary product to collect additional information such as power quality (standard control services).

63 AusNet Services, *Information request #066*, December 2020.

64 See https://www.esc.vic.gov.au/electricity-and-gas/codes-guidelines-and-policies/electricity-distribution-code/electricity-distribution-code-review-2019/technical-standards-electricity-distribution-code-2019-review.

65 See Schedule 1, of the electricity distribution code - https://www.esc.vic.gov.au/electricity-and-gas/codes-guidelines-and-policies/electricity-distribution-code/electricity-distribution-code-review-2019/technical-standards-electricity-distribution-code-2019-review.

66 See table 6 of Schedule 1 of the electricity distribution code, which sets out, The voltage data to be published is the 10-minute averaged voltage data over 3 months (for each time period identified in Table 6, which commences on the first day of the month at the start of the relevant 3 month period and ends on the last day of the final month of the relevant 3 month period) of the aggregated advanced metering infrastructure population for the "Voltage Control Section" column https://www.esc.vic.gov.au/electricity-and-gas/codes-guidelines-and-policies/electricity-distribution-code/electricity-distribution-code-review-2019/technical-standards-electricity-distribution-code-2019-review.

- Improved low voltage (LV) network visibility, which helps minimise voltage issues and voltage complaints.
- Network grooming: Identifying and resolving network imbalance, and determining the most prudent network augmentation projects.
- Cross referencing error identification to ensure customers are correctly assigned to a feeder and therefore receive outage notifications for planned works (we note that our engagement, including with the Customer Forum, highlighted the importance of effective communication on outages).
- A more accurate assessment for distributed energy resources (DER) capacity on the network at a customer's specific location – information that is essential for customers looking to gain solar pre-approval of their applications (discussed in further detail below).
- Identification of DER non-compliance, which can occur where a customer has installed unapproved or excess DER on the network (discussed in further detail below).
- Monitoring loss of neutral incidents (discussed in further detail below).
- Monitoring and resolving non-technical losses, such as energy theft.[67]

We observe that other jurisdictions in the NEM have limited penetration of AMI meters compared to the Victorian electricity distribution networks. As a result, the electricity distributors operating in these other jurisdictions do not rely on the AMI infrastructure to deliver network services similar to the ones described above. Most of these services, including loss of neutral (discussed below), are adequately managed by use of non-AMI infrastructure. Therefore, we consider the provision of distribution services through the AMI infrastructure should only be carried out to the extent it is efficient to do so.

As noted, we agree that use of AMI infrastructure to collect power quality data can support the distribution network and provides benefits to customers. In our draft decision, we recognised these benefits by allocating an efficient portion of AMI IT and communication costs to standard control services.[68]

However, AusNet Services has provided only anecdotal evidence to support its position that the high frequency and high volumes of data collection is the efficient option for providing these services when quantifying the benefits to customers. Our assessment is that AusNet Services has overstated the efficient level of data collection required (power quality data every 5 minutes from 85 per cent of its meters and alarm data (30 alarms/day) from all of its AMI meters) to support these services.

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67 AusNet Services, *Information request #090*, February 2021.

68 AER, *Draft Decision AusNet Services distribution determination 2021 to 2026 Attachment 16 Alternative Control Services*, September 2020, Table 16.22 p.51.

As set out in our draft decision, we consider AusNet Services only needs to collect power quality data from 1 per cent of its AMI meters to support its distribution network functions. We consider this translates into a more appropriate allocation of costs, supporting not only the appropriate recovery of costs from relevant customers when the benefits to customers are quantified, but also enabling efficient price signals to be sent regarding the costs of providing a given service.

Loss of netural

We agree that collecting power quality data from AMI meters is an efficient way to manage loss of neutral faults. However, we consider AusNet Services has overstated the efficient level of data required to perform this service.

We note loss of neutral is a process that generally occurs gradually over time (months to years), or is associated with installation changes such as replacing service mains. We also note that loss of neutral impacts a small number of installations each year (typically 0.2 per cent or less) at a given point in time.

Given the gradual degradation process and relatively small amount of installations that are affected, we do not consider it necessary or efficient to collect power quality data every 5 minutes from 85 per cent of meters in order to monitor loss of neutral.

We consider that monitoring loss of neutral should closely follow the profile of how the fault develops. Therefore, an efficient use of the AMI network to manage the loss of neutral is to collect a materially lower frequency and volume of data. We consider the collection of power quality data from 1 per cent of the meter population is more appropriate and efficient when the benefits to customers are quantified.

Distributed energy resources (DER)

We recognise that in areas where there is a high penetration of DER exporting into the network that distributors may want to capture power quality data to manage high and low voltage problems.

However, we consider that data only needs to be collected from a small number of sites per low voltage feeder. Over the total network, we consider it sufficient to collect power quality data from approximately 1 per cent of AMI meters for this purpose.

Telstra backhaul opex costs

We do not accept AusNet Services revised proposal to allocate 64 per cent of its Telstra backhaul costs to alternative control services and 36 per cent to standard control services. Our final decision is to maintain our draft decision allocation of 94 per cent to alternative control services and 6 per cent to standard control services based on the collection of power quality data from 1 per cent of the meter population

In its revised proposal, AusNet Services proposed allocation is based on the collection of power quality data from 85 per cent of meters.[69] AusNet Services reduced the volume to 10 per cent to account for the smaller size of power quality data collected.

We do not consider AusNet Services' proposed meter data requirements and consequently its reallocation of costs is efficient. The volume of data proposed is still significantly larger than what we consider as reasonable.

As set out in our draft decision, we consider AusNet Services only needs to collect power quality data from 1 per cent of AMI meters to support its distribution network functions.[70] We consider this a more appropriate allocation of costs, supporting not only the appropriate recovery of costs from relevant customers, but also enabling efficient price signals to be sent regarding the costs of providing a given service.

Future assessments of metering costs and changes in cost allocation

We will continue to focus on ensuring prices reflect the respective underlying efficient costs for our future assessments of AMI cost allocations between alternative and standard control services.

We would expect where allocations are proposed to change, the Victorian distributors would provide us and stakeholders with comprehensive economic analysis setting out the costs and benefits to customers as to:

- why the provision of standard control services through the AMI network is the efficient approach to deliver these services
- what efficiencies are delivered to the distributor and how these efficiencies are manifesting in cost savings for operating the network
- why particular levels of data collection is efficient, and/or
- why an alternative causal allocator than data volumes is appropriate.

For our assessment of AusNet Services' AMI cost allocations in this determination, we note this level of detailed economic analysis was not provided. As noted above, AusNet Services only provided anecdotal evidence to support its proposal that high frequency and high volumes of data collection is the efficient option for providing these services when quantifying the benefits to customers.

Future cost allocation assessments may also include a detailed assessment of whether the costs to be allocated to operating or capital expenditure for standard control services reasonably reflect the prudent and efficient costs. This detailed assessment would apply to any increase or new costs related to metering services for alternative control services.

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69 AusNet Services, *Information request #066,* January 28.

70 AER, *Draft Decision AusNet Services Distribution Determination 2021–26 Attachment 16 Alternative control services*, September 2020, p.41

Finally we note that Victoria is the only NEM jurisdiction without competition in metering. This was a policy decision taken by the Victorian government. We advise that any future proposal on the cost allocation of metering services include the Victorian government as a stakeholder.

Overall, our assessment approach would ensure the Victorian distributors are only recovering costs that reasonably reflect the prudent and efficient costs in providing alternative and standard control services; balanced against the costs and benefits to consumers and any future competition for metering services in Victoria.

16.2.4.2 Price growth forecasts and inflation

We have updated the metering post-tax revenue model (PTRM) and metering capex and opex models to include our final decision inputs relating to the rate of change, inflation and labour price growth forecasts. For our labour price growth forecasts for metering services we apply the average of wage price index growth forecasts from Deloitte Access Economics and BIS Oxford Economics.

We also updated our models to correct an escalation error in our draft decision, as well as include actual consumer price index (CPI) for December 2019 and December 2020; and our final decision inflation forecast of 2.37 per cent to replace AusNet Services' inflation forecast of 2.45 per cent.

16.2.4.3 Metering revenue and charges

Capital expenditure

Our final decision allows for $83.39 million ($2020–21) in forecast capex for AusNet Services' 2021–26 regulatory control period, as opposed to $78.11 million ($2020–21) proposed by AusNet Services (see Table 16.11).

Table 16.11 Forecast capital expenditure ($2020–21)

Forecast Capex	2021–22	2022–23	2023–24	2024–25	2025–26	Total
Proposal	14.72	12.47	11.79	12.63	13.44	65.05
Draft Decision	18.13	16.52	16.09	15.49	16.22	82.45
Revised Proposal	17.24	15.64	15.23	14.62	15.39	78.11
Final Decision	18.24	16.67	16.28	15.73	16.47	83.39

Source: AER, *Draft decision AusNet Services – distribution determination 2021–26 – Metering PTRM*, September 2020; AusNet Services, *Electricity distribution price review 2022–26 – Supporting document – Metering PTRM – FY22-26*, January 2020; AusNet Services, *Electricity distribution price review 2022–26 – Supporting document – EDPR 2022-26 Revised proposal – PTRM model (2022–26)*, Dec 2020; AER, *Final decision AusNet – distribution determination 2021–26 – Metering PTRM*, April 2021

Our final decision forecast capex consists of:

- IT $5.48 million ($2020–21)

- Communications $35.77million ($2020–21)
- Metering capex (remotely read interval meters and transformers) $41.28 million ($2020–21)
- Leases capitalised $0.23 million ($2020–21)
- Equity raising costs $0.63million ($2020–21).

The key driver for our higher forecast capex than that proposed by AusNet Services is our decision to not accept AusNet Services' proposal to re-allocate 20 per cent of its mesh network asset maintenance capex to standard control services and instead to allocate 6 per cent to standard control services.

AMI IT and communication costs

Our final decision allows for forecast communication capex of $35.77 million ($2020–21). This is higher than AusNet Services' proposed communications capex of $30.98 million ($2020–21). The key driver of this of the increase in communications capex compared to AusNet Services revised proposal is our decision on cost allocation as discussed above (see section 16.2.4.1).

Forecast opex

Our final decision allows for $78.84 million ($2020–21) in forecast opex for AusNet Services' 2021–26 regulatory control period. This is higher than AusNet Services' proposed opex of $73.77 million ($2020–21), driven by our decision on cost allocation as set out above under section 16.2.4.1.

Table 16.12 provides the final decision forecast operating expenditure for the 2021–26 regulatory control period.

Table 16.12 Forecast operating expenditure ($2020–21)

Forecast Opex	2021–22	2022–23	2023–24	2024–25	2025–26	Total
Proposal	11.11	11.36	11.48	11.43	11.48	56.86
Draft Decision	15.23	15.49	15.69	15.78	15.88	78.08
Revised Proposal	14.30	14.60	14.83	14.96	15.08	73.77
Final Decision	15.31	15.62	15.86	15.97	16.08	78.84

Source: AER, *Draft decision AusNet Services – distribution determination 2021–26 – Metering PTRM*, September 2020; AusNet Services, *Electricity distribution price review 2022–26 – Supporting document – Metering PTRM – FY22-26*, January 2020; AusNet Services, *Electricity distribution price review 2022–26 – Supporting document – EDPR 2022-26 Revised proposal – PTRM model (2022–26)*, Dec 2020; AER, *Final decision AusNet – distribution determination 2021–26 – Metering PTRM,* April 2021

The key driver of the increase in opex compared to AusNet Services revised proposal is our decision on cost allocation as discussed above in section 16.2.4.1.

16.2.4.4 Meter exit fees

Our final decision sets metering exit fees that reflect adjustments we made to the building block components for type 5 and 6 (incl. smart metering) revenue. These metering exit fees reflect:

- apportionment of the meter, IT, communications, and any other regulated asset base to reflect foregone revenue based on the average remainder of life of an asset
- administration costs of removing the meter, and
- tax allowances, and other relevant costs.

These cost components are sourced from the calculations of the building block components for type 5 and 6 (incl. smart metering) revenue, and are therefore subject to the same assessment and reasoning as for the type 5 and 6 (incl. smart metering) revenue.

16.3 Public lighting services

Public lighting services are defined as the:

- operation, maintenance, repair and replacement of public lighting assets in line with the Public lighting Code or the relevant legislation
- alteration and relocation of public lighting assets, and
- provision of new public lights.

16.3.1 Final decision

Our final decision is to:

- Accept AusNet Services' co-funding proposal for its light-emitting diode (LED) bulk replacement program following its engagement with stakeholders.
- Accept AusNet Services updates in its public lighting model to correct for data inaccuracies included in its initial proposal.

In our final decision, we adjust AusNet Services public lighting model to derive charges for year one (2021–22) of the 2021–26 regulatory control period for:

- actual inflation where relevant
- our final decision on labour price growth, and
- our final decision WACC (see Attachment 3 – Rate of return).

Our final decision sets the public lighting prices for the first year (2021–22) of the 2021–26 regulatory control period which are set out in C Public lighting services of this attachment. Prices for the subsequent years of the regulatory control period will be escalated by actual inflation and the X factors set out in Attachment 14 – Control mechanisms.

16.3.2 AusNet Services' revised proposal

In response to our draft decision, AusNet Services:

- proposed a co-funding arrangement with councils for a bulk replacement program to replace MV lights with efficient LED lights
- accepted our draft decision amendments to the public lighting model, except for labour price growth and the amendments to the T5 replacement and repair daily rates
- accepted our draft decision LED unit prices
- introduced three new public lighting prices for major road smart lighting.

AusNet Services also updated its public lighting model to correct for errors relating to:

- the double counting of public lights, and
- misallocation of public lights across councils.[71]

16.3.2.1 AusNet Services' bulk replacement program

As requested in our draft decision, AusNet Services have undertaken additional stakeholder consultation to discuss a program to replace MV lights with LED lights.[72] AusNet Services' noted its revised co-funding arrangement of LED bulk replacements reflects its stakeholder consultation, which better reflects the preferences of its public lighting customers.[73]

AusNet Services put to councils an option to replace all MV lights by 2026, with the cost partially funded by AusNet Services regulated capital expenditure.[74] This option would result in a moderate growth in the capital charges for lights in the efficient light class (LED, CFL, T5) for the following 20 years. AusNet Services noted this option:[75]

- Involves replacing MV lights with efficient LED lights, where AusNet Services would fully fund the replacement for 11 councils and co-fund the replacement for 18 councils by providing up to $45 per light in each council (where relevant). AusNet Services' $6.9 million in replacement costs would be derived from its efficient lighting regulated asset base and paid for by public lighting customers through public lighting tariffs. The 18 co-funded councils would fund $10.2 million of the remaining capital cost to ensure all MV lights are replaced.
- Provides equity for councils that have already invested in efficient lighting replacements and ensures the MV lights will be replaced. AusNet Services stated

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71 AusNet Services, *Information request #097*, March 2021.

72 AER, *Draft Decision AusNet Services Distribution Determination 2021–26, Attachment 16 Alternative control services*, September 2020, p. 57.

73 AusNet Services, *Revised regulatory proposal 2022–26*, December 2020, p.198.

74 AusNet Services, *Revised regulatory proposal 2022–26*, December 2020, p.198.

75 AusNet Services, *Revised regulatory proposal 2022–26*, December 2020, p.199.

where it determined a council has not substantially received the full value of their $45 per efficient light allocation, it will work with the council to fund the replacement of additional aged high pressure sodium lights in their area.

- Will give councils the opportunity to coordinate their lighting exchange program using AusNet Services' and the Municipal Association of Victoria's approved resources, including project manager and tendered service providers. Regional or smaller councils will be given the opportunity to work together with nearby councils and engage the same project manager and tendered service provider to organise a single program across municipalities.
- Is an approach to provide smart street lighting by creating new public lighting prices for major road smart lighting, with higher costs for software as a service and more expensive smart cells. This approach allows to offer IT systems and smart lighting services without increasing the prices for councils that have not invested in smart lighting. It contrasts with alternative approaches of not providing smart lighting services or providing smart lighting services to all customers with the higher costs of more expensive smart Photo Electric (PE) cells and IT systems. However, it means paying higher unit rates for smart PE cells due to lower volumes.

16.3.3 Assessment approach

To determine prices for public lighting services we assessed AusNet Services' public lighting model, considered historical data and benchmarked proposed costs against other NEM distributors and against independent data and information as relevant. Specifically, we assessed proposed labour rates, luminaire prices, other input assumptions and stakeholder submissions to derive proposed public lighting charges. We also updated model parameters where appropriate.

With regard to AusNet Services' proposed LED bulk replacement program, we engaged with the Local Government Response (LGR) (a group comprising Victorian greenhouse alliances, public lighting group and member councils) to discuss:

- AusNet Services' consultation with stakeholders on its revised co-funded bulk replacement program, and
- LGR's views on the revised bulk replacement program itself.

16.3.4 Reason for final decision

16.3.4.1 LED bulk replacement program

We accept AusNet Services co-funding proposal for its LED bulk replacement program. We acknowledge the work AusNet Services has done with stakeholders in working toward an accepted replacement program.

As noted, in our draft decision we did not accept AusNet Services' proposed LED replacement program because it was not supported by stakeholder feedback.[76] We requested AusNet Services to consult further with stakeholders to determine whether:[77]

- an alternative replacement program could be supported, or
- customers should instead work through any proposed bulk replacements on a case-by-case basis.

In response to our draft decision, AusNet Services engaged further with stakeholders to discuss key concerns raised in response to AusNet Services' initial proposal.[78] Through this engagement, AusNet Services proposed the amended co-funded bulk replacement program set out in section 16.3.2. AusNet Services stated that representative working groups provided in principle support of its proposed replacement program.[79]

In its submission, the LGR supported this position by noting AusNet Services proactively responded to the councils' request to find an alternate, collaborative approach to the replacement of lights.[80] The LGR noted the co-funding arrangement of the bulk replacement program was supported by the majority of councils although some councils were not in a position to commit to the co-funding arrangement at this stage.[81] These councils noted:

- that to comment to the co-funding arrangement a formal proposal would need to be submitted to their respective councils for consideration[82]
- their budgeting process does not allow for rapid consensus decision making, and[83]
- they will need to receive the co-funding proposals at least 8 months prior to the start of the financial year in which the upgrades will take place.[84]

LGR recommended AusNet Services bulk replacement program be accepted on the following basis:

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76 AER, *Draft Decision AusNet Services distribution determination 2021 to 2026 Attachment 16 Alternative Control Services*, September 2020, p.16-57.

77 AER, *Draft Decision AusNet Services distribution determination 2021 to 2026 Attachment 16 Alternative Control Services*, September 2020, p.16-57.

78 AusNet Services, *Revised regulatory proposal 2022–26*, December 2020, p. 198.

79 AusNet Services, *Revised regulatory proposal 2022–26*, 3 December 2020, p. 200.

80 Local Government Response, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26,* December 2020, p. 7.

81 Local Government Response, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26,* December 2020, p. 7.

82 Local Government Response, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26,* December 2020, p. 8.

83 Local Government Response, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26,* December 2020, p. 9.

84 Local Government Response, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26,* December 2020, p. 9.

- all the elements of the replacement program developed with the councils be included in the program roll-out
- future processes that propose such funding need longer time frames for engagement to ensure councils can adequately consider the proposals
- Councils cannot commit in advance to co-funding without going through proper process, AusNet Services will need to work with councils to ensure:[85]
    - there is sufficient time to consider the matter in the relevant year
    - an agreed process is determined if councils cannot allocate funding in the nominated year
    - cross subsidies are removed or diminished
    - a clear process for resolving lighting data inaccuracies before and during the project.

We engaged further with the LGR to discuss its submission and to get better insights into AusNet Services' proposed replacement program. Through this engagement, LGR reiterated its view that AusNet Services replacement program should be accepted by the AER.[86]

In response to the LGR's concerns regarding where a council cannot provide the funds to co-fund an LED bulk replacement, we note AusNet Services still has an obligation to ensure it is undertaking normal operation and maintenance requirements and should work with councils on how best to spend the allocated funds. AusNet Services may agree with a council to proceed with a portion of the planned bulk replacement on the basis that the funding has been provided.

We also note that our draft decision amended AusNet Services' LED unit rates to the most recent tender prices with respect to LED unit rates.[87] AusNet Services accepted our draft decision LED unit rates in its revised proposal.[88]

16.3.4.2 Correction of public lighting volumes

We accept AusNet Services update to its public lighting model to correct for errors relating to:

- the double counting of public lights, and
- misallocation of public lights across councils.

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85 Local Government Response, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26,* December 2020, p. 9.

86 AER File Note, *Meeting between AER Staff and the LGR*, February 2021.

87 AER, *Draft Decision AusNet Services distribution determination 2021 to 2026 Attachment 16 Alternative Control Services*, September 2020, p.16-55.

88 AusNet Services, *Revised regulatory proposal 2022–26*, December 2020, p. 198.

These updates will ensure AusNet Services public lighting prices are more accurate and better reflect the costs in providing these services. Correcting for this error will result in an increase in per light prices of between 3 and 11 per cent for customers in the North East Region of AusNet Services network.

We note stakeholders submitted that where AusNet Services or councils uncover data inaccuracies or billing errors that these be resolved in a timely manner.[89] We consider in this instance AusNet Services has responded in a timely manner to correct for the error in its data management systems and proposed public lighting model.

Since submission of its initial proposal, AusNet Services became aware of a discrepancy between the number of public lights registered in its asset management system and those in its billing system for customers.[90] AusNet Services noted that around 18,000 lights in the North East Region in its asset management system had either been double counted or had been misallocated to the Central Region.[91]

In discussions with the AER, AusNet Services confirmed the error only impacted its internal systems and operations and no customers had been overcharged. AusNet Services charges customers based on its billing system which did not include these errors. If anything, AusNet Services had been under recovering due to these errors.[92]

AusNet Services also noted that through its engagement with councils following our draft decision they agreed to improve its public lighting data records.[93] AusNet Services noted that councils had been made aware of data issues and that it would be updating its public lighting model in its revised proposal. Further, AusNet Services noted that it would work with councils to correct data issues when identified.

We consider AusNet Services has been transparent in its approach to correct for its volume data error and updates to its public lighting model. We acknowledge the work AusNet Services is undertaking to improve the quality of its public lighting data. AusNet Services has noted that it is currently improving its processes to ensure its data will become increasingly more accurate and be more transparent to councils.

16.3.4.3 Other public lighting prices

We accept AusNet Services revised T5 replacement and repair daily rates to be consistent with Powercor's rates, as per the approach set out in our draft decision.

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89 Local Government Response, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26,* December 2020, p. 9.

90 AER File note, *Meeting between AER staff and AusNet Services*, 23 March 2021.

91 AusNet Services, *Information request #096*, March 2021.

92 AusNet Services, *Information request #096*, March 2021.

93 AusNet Services, *Information request #096*, March 2021.

The LGR raised concerns regarding the inconsistency on VLED daily repairs between AusNet Services and Powercor given they are two similarly configured distribution networks.[94] The LGR should now be satisfied the daily repair rates are now consistent.

We consider our benchmarking and comparative analysis can enable distributors to improve performance and pass on the benefits to customers. However, we also note that elements such geographical parameters, cost structures and external contractors rates can influence the input assumptions for different distributors.

We also accept the AusNet Services introduction of three new 'smart' lights into its price list that received in principle support from stakeholders.[95] [96]

16.3.4.4 Price movements

Our final decision results price movements for the first year of the regulatory control period are in the range of 1.2 per cent increase to a decrease of 8 per cent for some of the light types when compared to the revised proposal. Overall the revenue increase for the 2021–26 regulatory control period is driven by adjustments to the light volumes and deployment of bulk replacement program and is in a reasonable range.

Our final decision public lighting prices and the corresponding X factors are set out in C Public lighting services of this attachment.

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94 Local Government Response, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26,* December 2020, p. 7.

95 AusNet Services, *Revised regulatory proposal 2022–26*, December 2020, p. 198.

96 AER File Note, Meeting between AER Staff and the LGR, 8 February 2021.

A Ancillary network services prices

Prices in this appendix are in $2021–22.

Table 16.13 Fee-based ancillary network services prices for 2021–22 ($2021–22), final decision – business hours

Service description	AER final decision
Connection-related	
Single Phase overhead	$498.35
Single Phase underground	$219.01
Single Phase underground with a directly connected meter on group metering panel	$472.23
Multi-phase overhead with a directly connected meter	$566.34
Multi-phase overhead with a CT connected meter	$1,081.27
Multi-phase underground with a directly connected meter	$347.11
Multi-phase underground with a directly connected meter on group metering panel	$604.57
Multi-phase underground with a CT connected meter	$862.04
95mm2 overhead service from LVABC	$852.49
Establish temporary supply connection	$494.11
Appointment – inspection of group or CT metering prior to connection	$514.93
Service truck – Disconnect / Reconnect at pole or pit	$567.41
Other	
Meter equipment test[1]	$311.67
Meter equipment test – Each Additional Meter at same site[1]	$71.86
Wasted Truck Visit – customer not ready for their requested works	$211.04
Manual assessment of PV & small generator installation enquiry, 4.6kW to 15kW	$325.79
Manual assessment of PV & small generator installation enquiry, 15kW to 30kW	$325.79
Security and watchmen lights	$60.88
Auxiliary metering services	
Remote special meter read	$0.00
Remote re-energisation	$0.00
Remote de-energisation	$0.00
Remote meter re-configuration	$15.11

Service description	AER final decision
Field officer visit	$34.80
Manual meter reading	$34.80
Priority re-energisation	$33.69
Non-standard AMI data subscription (per month)	$0.85 (for compliance purposes only)[2]
Type 7 metering charge	
Per NMI	$30.00
Per light	$1.76

Source: AER, *Final decision – AusNet Services distribution determination – 2021–26 – Ancillary Network Services Model*, April 2021; AER, *Final decision – AusNet Services distribution determination – 2021–26 – Auxiliary Metering Services Charges Model*, April 2021

Notes: 1. This table reflects the simplification of AusNet Services' meter equipment tests. For a more detailed discussion, see section 16.1.4.1.

2. As discussed in section 16.1.4.5 of the draft decision, this price is included for the purposes of complying with the price cap formula only. AusNet Services does not propose to offer this service in the 2021–22 regulatory year.

Table 16.14 Fee-based ancillary network services prices for 2021–22 ($2021–22), final decision – after hours

Service description	AER final decision
Connection-related	
Single Phase overhead	$872.12
Single Phase underground	$383.27
Multi-phase overhead with a directly connected meter	$991.10
Multi-phase overhead with a CT connected meter	$1,822.22
Multi-phase underground with a directly connected meter	$1,307.29
Multi-phase underground with a CT connected meter	$1,508.57
95mm2 overhead service from LVABC	$1,491.86
Establish temporary supply connection	$864.69
Auxiliary metering services	
Field officer visit	$60.91

Source: AER, *Final decision – AusNet Services distribution determination – 2021–26 – Ancillary Network Services Model*, April 2021.

Table 16.15 Non-exhaustive list of ancillary network services provided on a quotation basis, draft decision

Description of service
Access permits, oversight and facilitation
Network related property services
Notices of arrangement and completion notices
Network safety services
Connection application and management services
Community network upgrades
Provision of training to third parties for network related access
Authorisation and approval of third party service providers design, work and materials
Customer initiated network asset relocations
Customer requested supply outage
Customer requested provision of electricity network data
Enhanced connection services

Source: AusNet Services, *Electricity Distribution Price Review 2022–26: Part IV*, 31 January 2020, pp. 53–56.

Table 16.16 Quoted service hourly labour rates for 2020–21, final decision ($2021–22)

Service description	AER labour type	AER final decision maximum total hourly rate – business hours	AER final decision maximum total hourly rate – after hours
Construction Overhead Install	Field worker	$121.21	$147.21
Construction Underground Install	Field worker	$118.39	$143.78
Construction Substation Install	Field worker	$118.39	$143.78
Electrical Tester Including Vehicle & Equipment	Technical specialist	$174.55	$238.63
Planner Including Vehicle	Technical specialist	$162.72	NA
Supervisor Including Vehicle	Technical specialist	$162.72	NA
Design	Engineer	$138.93	$168.73
Drafting	Technical specialist	$106.76	$129.66

Service description	AER labour type	AER final decision maximum total hourly rate – business hours	AER final decision maximum total hourly rate – after hours
Survey	Technical specialist	$125.76	$152.74
Tech Officer	Technical specialist	$125.76	$152.74
Line Inspector	Technical specialist	$121.21	$147.21
Contract Supervision	Technical specialist	$125.76	$152.74
Protection Engineer	Engineer	$138.93	$168.73
Maintenance Planner	Technical specialist	$125.76	$152.74
Senior Engineer	Senior engineer	$200.26	$299.02

Source: Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet Services: Advice to the Australian Energy Regulator*, 30 June 2020, p. 10; AER, *Final decision – AusNet Services distribution determination – 2021–26 – Ancillary Network Services Model*, April 2021.

Table 16.17 AER draft decision on X factors for each year of the 2021–26 regulatory control period for ancillary network services (per cent)

	2022–23	2023–24	2024–25	2025–26
X factor	-0.6627	-0.6091	-0.7328	-0.9509

Source: AER, *Final decision – AusNet Services distribution determination – 2021–26 – Ancillary Network Services Model*, April 2021

Note: We do not apply an X factor for 2021–22 because we set the 2021–22 ancillary network service prices in this determination.

To be clear, the labour price growth forecasts in this table are operating as de facto X factors. Therefore, positive labour price growth forecasts are represented as negative in this table and vice versa.

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

Prices in this appendix are in $2021–22.

Table 16.18 AER final decision metering exit fees ($2021–22)

Meter type	2021–22
Single phase single element	$364.37
Single phase two element with contactor	$361.32
Multiphase	$363.04
Multiphase with contactor	$363.04
Multiphase CT connected	$363.21

Source: AER, *Final decision – AusNet Services distribution determination 2021–26 – Metering PTRM*, April 2021.

Table 16.19 AER final decision on X factors for each year of the 2021–26 regulatory control period for metering exit fees (per cent)

X factor	2022–23	2023–24	2024–25	2025–26
Single phase single element	6.0984	7.1493	8.1869	9.1412
Single phase two element with contactor	6.0244	7.0769	8.1142	8.5921
Multiphase	6.0615	7.1142	8.1526	8.9133
Multiphase with contactor	6.0615	7.1142	8.1526	8.9133
Multiphase CT connected	6.0675	7.1182	8.1557	8.9431

Source: AER, *Final decision – AusNet Services distribution determination 2021–26 – Metering PTRM*, April 2021.

C Public lighting services

Prices in this appendix are in $2021–22.

Table 16.20 Final decision public lighting prices ($2021–22)

AusNet Services' Lights (Central)	Revised Proposal	Final Decision
Mercury Vapour 80W	$60.14	$60.88
HP Sodium 150W	$112.16	$112.86
HP Sodium 250W	$115.00	$115.69
Mercury Vapour 50W	$92.01	$93.15
Mercury Vapour 125W	$88.40	$89.50
Mercury Vapour 250W	$120.75	$121.47
Mercury Vapour 400W	$125.35	$126.10
HP Sodium 100W	$120.01	$120.77
HP Sodium 400W	$163.30	$164.27
Metal Halide 70W	$262.50	$265.76
Metal Halide 100W	$267.79	$269.49
Metal Halide 150W	$304.23	$306.16
HP Sodium 50W	$49.72	$50.04
T5 2X14W	$51.50	$51.71
T5 2X24W	$55.01	$55.22
LED 18W	$29.24	$29.46
LED non-standard low power ~14W	$31.07	$31.28
LED 70W-125W (L1)	$48.63	$45.36
LED 155W-250W (L2)	$49.27	$46.04
LED 275W-400W (L4)	$55.00	$52.06
Compact Fluorescent 32W	$45.30	$45.49
Compact Fluorescent 42W	$45.30	$45.49
Smart lighting L1	$59.59	$59.98
Smart lighting L2	$60.23	$60.65
Smart lighting L4	$65.96	$66.68

Source: AER, *Final decision – AusNet Services distribution determination – 2021–26 – Public Lighting Model*, April 2021.

AusNet Services' Lights (North East)	Revised Proposal	Final Decision
Mercury Vapour 80W	$66.12	$66.94
HP Sodium 150W	$131.45	$132.16
HP Sodium 250W	$131.25	$131.93
Mercury Vapour 50W	$$97.86	$99.07
Mercury Vapour 125W	$$97.86	$99.07
Mercury Vapour 250W	$136.50	$137.21
Mercury Vapour 400W	$140.44	$141.16
HP Sodium 100W	$140.66	$141.41
HP Sodium 400W	$186.38	$187.34
Metal Halide 70W	$251.55	$254.65
Metal Halide 100W	$278.43	$279.91
Metal Halide 150W	$316.32	$318.01
HP Sodium 50W	$59.78	$60.10
T5 2X14W	$57.37	$57.56
T5 2X24W	$61.43	$61.62
LED 18W	$31.37	$31.58
LED non-standard low power ~14W	$33.12	$33.33
LED 70W-125W (L1)	$56.19	$51.24
LED 155W-250W (L2)	$56.83	$51.91
LED 275W-400W (L4)	$62.55	$57.94
Compact Fluorescent 32W	$50.46	$50.63
Compact Fluorescent 42W	$50.46	$50.63
Smart lighting L1	$67.46	$67.82
Smart lighting L2	$68.10	$68.49
Smart lighting L4	$73.82	$74.52

Source: AER, *Final decision – AusNet Services distribution determination – 2021–26 – Public Lighting Model*, April 2021.

Table 16.21 Final decision public lighting – X factors (per cent)

AusNet Services' Lights (Central)	2022–23	2023–24	2024–25	2025–26
Mercury Vapour 80W	0.0818	-2.4754	-6.5005	0.2455
HP Sodium 150W	-0.0978	-0.4618	-4.2807	-0.1092
HP Sodium 250W	-0.0894	-0.5942	-4.2705	-0.0999
Mercury Vapour 50W	0.0818	-2.4754	-6.5005	0.2455
Mercury Vapour 125W	0.0818	-2.4754	-6.5005	0.2455
Mercury Vapour 250W	-0.0894	-0.5942	-4.2705	-0.0999
Mercury Vapour 400W	-0.0894	-0.5942	-4.2705	-0.0999
HP Sodium 100W	-0.0978	-0.4618	-4.2807	-0.1092
HP Sodium 400W	-0.0894	-0.5942	-4.2705	-0.0999
Metal Halide 70W	0.0818	-2.4754	-6.5005	0.2455
Metal Halide 100W	-0.0978	-0.4618	-4.2807	-0.1092
Metal Halide 150W	-0.0978	-0.4618	-4.2807	-0.1092
HP Sodium 50W	-0.0978	-0.4618	-4.2807	-0.1092
T5 2X14W	-3.6758	-2.7277	-2.1625	-1.3291
T5 2X24W	-3.5424	-2.6354	-2.0970	-1.3032
LED 18W	-5.0645	-3.6723	-2.8278	-1.5879
LED non-standard low power ~14W	-4.7904	-3.4858	-2.6962	-1.5309
LED 70W-125W (L1)	-5.9329	-4.2848	-3.2511	-1.8244
LED 155W-250W (L2)	-6.1597	-4.4377	-3.3542	-1.8686
LED 275W-400W (L4)	-7.9290	-5.6089	-4.1338	-2.1998
Compact Fluorescent 32W	-3.6758	-2.7277	-2.1625	-1.3291
Compact Fluorescent 42W	-3.6758	-2.7277	-2.1625	-1.3291
Smart lighting L1	-4.5210	-3.3145	-2.5507	-1.4661
Smart lighting L2	-4.7088	-3.4446	-2.6406	-1.5061
Smart lighting L4	-6.2214	-4.4763	-3.3459	-1.8166

Source: AER, *Final decision – AusNet Services distribution determination – 2021–26 – Public Lighting Model*, April 2021.

AusNet Services' Lights (North East)	2022–23	2023–24	2024–25	2025–26
Mercury Vapour 80W	0.1262	1.0727	-6.1418	0.2089
HP Sodium 150W	-0.1274	1.0858	-3.7959	-0.1987
HP Sodium 250W	-0.1869	0.7374	-3.8469	-0.1611
Mercury Vapour 50W	0.1262	1.0727	-6.1418	0.2089
Mercury Vapour 125W	0.1262	1.0727	-6.1418	0.2089
Mercury Vapour 250W	-0.1869	0.7374	-3.8469	-0.1611
Mercury Vapour 400W	-0.1869	0.7374	-3.8469	-0.1611
HP Sodium 100W	-0.1274	1.0858	-3.7959	-0.1987
HP Sodium 400W	-0.1869	0.7374	-3.8469	-0.1611
Metal Halide 70W	0.1262	1.0727	-6.1418	0.2089
Metal Halide 100W	-0.1274	1.0858	-3.7959	-0.1987
Metal Halide 150W	-0.1274	1.0858	-3.7959	-0.1987
HP Sodium 50W	-0.1274	1.0858	-3.7959	-0.1987
T5 2X14W	-3.3271	-2.4803	-1.9859	-1.2501
T5 2X24W	-3.2010	-2.3927	-1.9236	-1.2255
LED 18W	-4.7207	-3.4325	-2.6591	-1.5110
LED non-standard low power ~14W	-4.4905	-3.2750	-2.5471	-1.4618
LED 70W-125W (L1)	-5.2868	-3.8461	-2.9494	-1.6957
LED 155W-250W (L2)	-5.4962	-3.9891	-3.0467	-1.7376
LED 275W-400W (L4)	-7.1551	-5.1020	-3.7949	-2.0574
Compact Fluorescent 32W	-3.3271	-2.4803	-1.9859	-1.2501
Compact Fluorescent 42W	-3.3271	-2.4803	-1.9859	-1.2501
Smart lighting L1	-4.0361	-2.9780	-2.3180	-1.3716
Smart lighting L2	-4.2072	-3.0976	-2.4012	-1.4086
Smart lighting L4	-5.6011	-4.0585	-3.0628	-1.7004

Source: AER, *Final decision – AusNet Services distribution determination – 2021–26 – Public Lighting Model*, April 2021.

Shortened forms

Shortened form	Extended form
ACS	alternative control services
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AMI	advanced metering infrastructure
capex	capital expenditure
CCP17	Consumer Challenge Panel, sub-panel 17
CPI	consumer price index
Distributor	distribution network service provider
ECA	Energy Consumers Australia
F&A	framework and approach
LED	light-emitting diode
MV	mercury vapour
NEL	National Electricity Law
NEM	National Electricity Market
NER	National Electricity Rules
opex	operating expenditure
PTRM	post-tax revenue model
RIN	regulatory information notice
SCS	standard control services
WACC	weighted average cost of capital