DRAFT DECISION

AusNet Services
Distribution Determination
2021 to 2026

Attachment 16
Alternative control services

September 2020

AUSTRALIAN ENERGY REGULATOR

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Note

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

The draft decision includes the following attachments:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency benefit sharing scheme

Attachment 9 – Capital expenditure sharing scheme

Attachment 10 – Service target performance incentive scheme

Attachment 11 – Demand management incentive scheme and demand management innovation allowance mechanism

Attachment 12 – Customer incentive service scheme

Attachment 13 – Classification of services

Attachment 14 – Control mechanisms

Attachment 15 – Pass through events

Attachment 16 – Alternative control services

Attachment 17 – Negotiated services framework and criteria

Attachment 18 – Connection policy

Attachment 19 – Tariff structure statement

Attachment A – Victorian f-factor incentive scheme

Contents

16 Alternative control services

This attachment sets out our draft decision on prices, or revenues, AusNet Services is allowed to charge, or recover from, customers for the provision alternative control services: ancillary network services, public lighting services and metering services.

Alternative control services (ACS) 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 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 (e.g. revenue or price cap), 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.

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

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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.

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 draft decision sets labour rates to be applied to ancillary network services provided on a quotation basis.

16.1.1 Draft decision

Form of control

Our draft decision is to maintain our final F&A position to apply price caps to ancillary network services as the form of control. Under a price cap form of control, for fee-based services we set a schedule of prices for the first year of the regulatory control period, 2021–22. For the subsequent years of the regulatory control period, the prices for ancillary network services charged on a fee basis are determined by adjusting the previous year's prices by the formula set out in section 14.5.2 of Attachment 14 – Control mechanisms.

For services offered on a quoted basis, we set a schedule of labour rates for the first year of the regulatory control period, 2021–22. For the subsequent years of the regulatory control period, these labour rates are adjusted as set out in section 14.5.2 of attachment 14. The price caps for these services are determined by applying the approved labour rates and the formula set out in section 14.5.2 of attachment 14.

The annual adjustment of fee-based charges or quoted service labour rates requires the specification of an 'X-factor' (see section 14.5.2 of attachment 14 for details). Consistent with our previous decisions, we have applied a labour escalator as the X-factor for ancillary network services.

We have substituted our labour escalator for AusNet Services' proposed labour forecasts. For more detail on the reasons for this decision, see the discussion in section 6.4.4 of Attachment 6 – Operating expenditure. Our draft decision X-factors for ancillary network services are set out in Appendix A.

Fee-based and quoted services

Our draft decision is to:

- accept AusNet Services' proposed business-hours charges for fee-based ancillary network services with the exception of:
    - the "Remote special meter read" service, which we require AusNet Services to offer free of charge (see section 16.1.4.1)
    - the "Non-standard AMI data subscription (per month)" service (see section 16.1.4.5)
- reject AusNet Services' proposed after-hours charges for fee-based services (see section 16.1.4.2)

- accept AusNet Services' proposed labour rates for quoted services, with the exception of AusNet Services' proposed rate for "Electricity Tester Including Vehicle and Equipment" (ordinary hours only) (see below and section 16.1.4.1).

In addition, we require AusNet Services to clarify in its revised proposal whether it intends to apply other wasted visit charges for other types of services besides fee-based ancillary network services or fee-based connection-related services (see section 16.1.4.3).

Our draft decision on prices for fee-based services for the 2021–22 regulatory year is listed in Appendix A. Note that prices in Appendix A are in $2020–21. We will incorporate updated inflation figures in our final decision to derive 2021–22 prices in nominal terms.

Table 16.1 sets out our draft decision maximum labour rates (which include on-costs and overheads) that AusNet Services should apply in calculating charges for quoted services offered in business hours. We accept AusNet Services' proposed labour rates where they fall within our consultant's maximum recommended total hourly rates. We do not accept AusNet Services' proposed business-hours rate for "Electricity Tester Including Vehicle and Equipment", and we have substituted our consultant's maximum recommended hourly rate of $171.75 ($2020–21).

We have similarly adjusted the after-hours rates downward as set out in section 16.1.4.1. Table 16.29 in Appendix A contains our draft decision on the labour rates that AusNet Services should apply in calculating charges for quoted services offered after hours.

Table 16.1 AER draft decision - 2021–22 hourly labour rates (incl. on-costs and overheads, $2020–21) - ordinary hours

Service description	AER labour type	AusNet Services proposed total hourly rate	AER draft decision maximum total hourly rate
Construction Overhead Install	Field worker	$114.12	$114.12
Construction Underground Install	Field worker	$111.47	$111.47
Construction Substation Install	Field worker	$111.47	$111.47
Electrical Tester Including Vehicle & Equipment	Technical specialist	$199.28	$171.75[1]
Planner Including Vehicle	Technical specialist	$153.20	$153.20
Supervisor Including Vehicle	Technical specialist	$153.20	$153.20
Design	Engineer	$130.81	$130.81
Drafting	Technical specialist	$100.52	$100.52
Survey	Technical specialist	$118.40	$118.40
Tech Officer	Technical specialist	$118.40	$118.40
Line Inspector	Technical specialist	$114.12	$114.12

Service description	AER labour type	AusNet Services proposed total hourly rate	AER draft decision maximum total hourly rate
Contract Supervision	Technical specialist	$118.40	$118.40
Protection Engineer	Engineer	$130.81	$130.81
Maintenance Planner Including Vehicle	Technical specialist	$118.40	$118.40

Notes: 1. This is equal to Marsden Jacob's recommended maximum total hourly rate for a Technical specialist (see Table 16.2) escalated by our draft decision forecast labour price growth for 2021–22 (see the discussion in section 6.4.4 of attachment 6 – operating expenditure).

Source: Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet: Advice to the Australian Energy Regulator*, 30 June 2020, p. 10; AusNet Services, *Alternative Control - Build up of Prices*, 31 January 2020, 'Quoted Services'!;

Our maximum rates for a Field Worker and Technical Specialist ($171.75, $2020–21) include a $20 per hour allowance for a vehicle. Hence, vehicle costs should not be included in a rate calculation for quoted services involving "Electrical Tester Including Vehicle & Equipment". Similarly, vehicle costs should not be included in a rate calculation for quoted services involving the "Planner including vehicle" and "Supervisor including vehicle" labour categories. This is because the approved price for those labour categories ($153.20, $2020–21, as noted in Table 16.1) already include the cost of a vehicle.

16.1.2 AusNet Services' proposal

Consistent with the classification in the AER's F&A, AusNet Services proposed both fee-based and quoted services for ancillary network services.

AusNet Services proposed three general types of fee-based ancillary network services:

- Auxiliary metering services
- Connection-related fee-based services
- Other fee-based services.

AusNet Services derived its proposed prices for Connection-related and Other fee-based services using a cost-build up model. The primary inputs into the model are AusNet Services' new contract rates for providing the services in three broad geographic regions (Central, North and East).[4]

AusNet Services derived its proposed prices for Auxiliary metering services using a separate cost-build-up model. This model used various methods to calculate proposed prices. For several services, the model uses a bottom-up approach using labour rates

[4] AusNet Services, *Electricity Distribution Price Review 2022–26: Part IV*, 31 January 2020, pp. 47–48; Powercor, *Alternative Control - Build up of Prices*, 31 January 2020, 'Connection Fees'!..

as the primary input to derive the proposed price.[5] For other services, the model uses a top-down approach to derive the proposed price.[6]

AusNet Services proposed that the formula specified in the F&A for quoted ancillary services be amended to include a margin and an allowance for tax. For our decision on this proposal and related reasoning see Attachment 14 − Control mechanisms.

In deriving its proposed quoted service labour rates, AusNet Services used a base-trend approach where actual rates per hour are calculated for each labour category from the 2020 regulatory year prices. AusNet Services then applied forecast real labour cost escalators to these base year prices to derive rates for the 2021–22 regulatory year.[7]

AusNet Services' proposed fee-based services for the 2021–26 regulatory control period are largely the same as for the 2016–20 regulatory control period. AusNet Services proposed several new services for the 2021–26 regulatory control period, including:

- Single Phase underground with a directly connected meter on group metering panel – Business Hours
- Multi-phase underground with a directly connected meter on group metering panel – Business Hours
- Appointment – inspection of group or CT metering prior to connection – Business Hours
- Manual meter reading
- Priority re-energisation
- Non-standard AMI data subscription.

AusNet Services also proposed to abolish the fees for the "Remote re-energisation" and "Remote de-energisation" services.

For the 2022–23 to 2025–26 regulatory years, AusNet Services proposed X-factors based on an average of the following labour price growth forecasts:[8]

- BIS Oxford Economics' forecast for Victoria Utilities
- the Deloitte Access Economics forecast we used in our draft decision for SA Power Networks.

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5 AusNet Services, *Auxiliary Metering Services Charges Model*, 31 January 2020, '2021 Remote Special Reads'!, '2021 Remote Reconfig'!, 'Priority Re-energisation'!.

6 AusNet Services, *Auxiliary Metering Services Charges Model*, 31 January 2020, 'Non-Standard AMI Data Request'!, '2021Field Officer Visit'!.

7 AusNet Services, *Electricity Distribution Price Review 2022–26: Part IV*, 31 January 2020, p. 49; Powercor, *Alternative Control - Build up of Prices*, 31 January 2020, 'Quoted Services'!.

8 AusNet Services, *Alternative Control - Build up of Prices*, 31 January 2020, 'Labour Escalators'!M12:P12; AusNet Services, *Opex - Labour Price Escalation Calculation*, 31 January 2020, 'WPI - revised'!H6:K6.

16.1.3 Assessment approach

The price cap control mechanism that we apply to assess the efficient costs of alternative control services may use elements of the building block model for standard control services, but there is no requirement to apply the building block model exactly as prescribed in Part C of the National Electricity Rules (NER).[9] Full details of our draft decision on the form of control mechanism and control mechanism formulae are set out in attachment 14 of this draft decision.

Our approach involves an assessment of the main 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. Section 16.1.4.1 discusses our maximum total labour rates.

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 the prices of other distributors where relevant. We made further adjustments to AusNet Services' ancillary network services prices where we considered it appropriate to do so.

16.1.4 Reasons for draft decision

Section 16.1.4.1 discusses the maximum labour rates we consider are appropriate for distributors in Victoria. It also sets out how we assessed AusNet Services' ancillary network services prices for this draft decision, having regard to these maximum labour rates.

Sections 16.1.4.2 to 16.1.4.5 set out our consideration of specific aspects of AusNet Services' proposed ancillary network services.

16.1.4.1 Proposed labour rates and benchmarking

For ancillary network services we typically review the key inputs in determining the price for the service. We focus particularly on labour rates as these are the principal input for ancillary network services. In considering labour rates we had regard to maximum reasonable benchmark labour rates developed by our consultant, Marsden Jacob, which we consider are efficient. Where necessary we have adjusted AusNet Services' proposed charges for ancillary network services to reflect the outcome of our assessment of efficient labour rates.

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9 NER, cl. 6.2.6(c).

Marsden Jacob also benchmarked AusNet Services' proposed prices for its most commonly performed services against the prices of other distributors.

We summarise Marsden Jacob's report in the next section.

Marsden Jacob report

We engaged Marsden Jacob to provide advice in relation to estimates of reasonable maximum total labour rates for the Victorian distributors' 2021–26 proposed ancillary network services, and to benchmark certain ancillary network services provided on a fee basis. This is an extension of Marsden Jacob's previous reports for the AER in relation to distribution determinations for other distributors in the National Electricity Market. Marsden Jacob had regard to the methodology in those reports in undertaking this new report.[10]

Marsden Jacob observed that, although distributors use different labour category names and descriptions, the types of labour used to deliver ancillary network services broadly fall into five categories: administration; technical services; engineers; field workers; and senior engineers.[11]

Using these categories Marsden Jacob developed benchmark labour rates for each distributor based on Hays 2019–20 Energy sector and office support salary data.[12]

In assessing the reasonableness of proposed labour rates, Marsden Jacob 'normalised' the rates provided by each distributor and separated them as:[13]

1. Raw labour – based on the Hays salary data using Melbourne rates.
2. On-costs – to cover basic leave entitlements and standard on-costs including superannuation, workers compensation and payroll tax.
3. Overheads – to cover all additional costs. Overall, Marsden Jacob recommended a maximum overhead rate of 61 per cent. Marsden Jacob also accepted the inclusion of an explicit profit margin, however where identified this allocation was benchmarked within the overall overhead allowance.

In aggregate, these elements are referred to as the 'total labour rate', which is expressed as an hourly rate. Table 16.2 includes Marsden Jacob's recommended maximum total hourly labour rates.

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10 For recent examples, see: Marsden Jacob, *Review of Alternative Control Services: SA Power Networks, Ergon Energy and Energex: Advice to Australian Energy Regulator*, June 2019; Marsden Jacob, *Review of Alternative Control Services: SA Power Networks, Ergon Energy and Energex: Addendum: Advice to Australian Energy Regulator*, August 2019.

11 Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet: Advice to the Australian Energy Regulator*, 30 June 2020, p. 6.

12 Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet: Advice to the Australian Energy Regulator*, 30 June 2020, p. 6.

13 Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet: Advice to the Australian Energy Regulator*, 30 June 2020, pp. 6–9.

Table 16.2 Marsden Jacob recommendation - 2020–21 hourly labour rates (incl. on-costs and overheads, $2020–21) - ordinary hours

	Marsden Jacob recommended maximum total labour rate[1]
Administration	92.51
Field worker	171.34
Technical	171.34
Engineer	150.33
Senior engineer	196.58

Notes: 1. Marsden Jacob derived maximum recommended labour rates for the 2020–21 year (the year prior to the first year of the 2021–26 regulatory control period). Marsden Jacob therefore examined the labour rates the Victorian distributors proposed for 2020–21.

Source: Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet: Advice to the Australian Energy Regulator*, 30 June 2020, p. 10.

Based on its review, Marsden Jacob recommended maximum reasonable benchmark labour rates. The maximum hourly labour rates include the highest of the Hays salary rates for each labour category. Marsden Jacob noted that while these are reasonable maximum rates, more efficient rates may be gained by reference to a different point in the Hays salary bands. For future determinations, Marsden Jacob recommended the AER consider reducing the maximum labour rates to reflect efficiency frontier benchmarks rather than the highest of the Hays rates for each labour category.[14] We note Marsden Jacob's recommendation in the context of future determinations. For the purposes of this draft decision, we consider the maximum reasonable rates recommended by Marsden Jacob are efficient.

Marsden Jacob also recommended that after hours rates be capped at 1.75 times the relevant ordinary hours rate.

Marsden Jacob also reviewed the proposed charges for a number of ancillary network services. Where practicable, Marsden Jacob compared each Victorian distributor's charges with like services of other distributors (in Victoria as well as other jurisdictions).[15] In contrast to previous reviews, Marsden Jacob did not recommend specific price levels for individual services as a result of this review. Marsden Jacob stated much of the costing is opaque for the Victorian distributors, except Jemena. Hence, Marsden Jacob instead proposed that the AER seek further information on charges for specific services.[16]

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14 Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet: Advice to the Australian Energy Regulator*, 30 June 2020, pp. 4–5 and 13.

15 Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet: Advice to the Australian Energy Regulator*, 30 June 2020, p. 14.

16 Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet: Advice to the Australian Energy Regulator*, 30 June 2020, p. 20.

Marsden Jacob recommendations and application

Marsden Jacob recommended we lower AusNet Services' labour rate for "Electrical Tester Including Vehicle & Equipment" to the maximum hourly rate for a Technical Specialist (business hours), as set out in Table 16.2.[17] This is the basis of our draft decision for the labour rates underpinning quoted services as summarised in Table 16.1.

On the other hand, Marsden Jacob noted AusNet Services did not explicitly use its proposed labour rates to generate the prices for most fee-based services.[18] We similarly noted in previous section 16.1.2 that AusNet Services' model for deriving most of its proposed fee-based prices for the 2021–26 regulatory control period is ultimately based on contract rates. We therefore cannot simply replace AusNet Services' labour rates with our draft decision labour rates in the pricing model to derive draft decision prices for these fee-based services.

There are some exceptions for AusNet Services' proposed auxiliary metering services. As noted in section 16.1.2, AusNet Services uses a bottom-up approach using labour rates as the primary input to derive its prices for several auxiliary metering services. We consider the labour rates for these labour inputs (largely Administration, but also Field worker) are reasonable as they are below Marsden Jacob's recommended maximum rates.[19] The exception is the after-hours rate for the "Field officer visit" services (see section 16.1.4.2).

Origin Energy stated it appears the distributors are proposing significant increases in labour costs between regulatory control periods.[20] We do not consider this is the case for the labour rates underpinning AusNet Services' quoted services.[21] Our analysis suggests AusNet Services' labour rates for quoted services would increase by 0.51 per cent from 2020 to the 2021–22 regulatory year. Further, with one exception, these labour rates are all below Marsden Jacob's recommended maximum rates.

In discussing the Victorian distributors in general, Origin Energy stated it appears the proposed charges for a number of fee-based services increased considerably in 2021–22 compared to prices for 2020. Origin Energy submitted AusNet Services proposed significant increases for connection services and meter equipment testing both during

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17 Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet: Advice to the Australian Energy Regulator*, 30 June 2020, p. 13.
Note that we accept AusNet Services' proposed after-hours rate for this labour type as it is 31 per cent above our substituted business-hours rate (and hence below Marsden Jacob's recommended 75 per cent mark-up for after-hours rates).

18 Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet: Advice to the Australian Energy Regulator*, 30 June 2020, p. 5.

19 AusNet Services, *Auxiliary Metering Services Charges Model*, 31 January 2020.

20 Origin, *RE: Submission to Victorian electricity distributors regulatory proposals*, 3 June 2020, p. 8.

21 AER analysis; AusNet Services, *Alternative Control - Build up of Prices*, 31 January 2020, 'Quoted Services'!; AusNet Services, *Approved pricing proposal: Attachment 3 - Alternative control services 2020 v1.0*, November 2019, 'Quoted'!.

business hours and after hours. Origin Energy encouraged us to examine the cost structures associated with these services as the fee increases appear well above consumer price index (CPI) or wages growth.[22]

Indeed, AusNet Services' proposed increases to its fee-based services for the 2021–22 regulatory year appear to be well in excess of CPI or wages growth. AusNet Services' proposed 2021–22 prices for connection-related fee-based services during business hours are on average 28 per cent higher than for 2020 (after adjusting for inflation). The increase for other ancillary network services, such as meter testing, is 40 per cent on average between 2020 and 2021–22.[23] Table 16.3 shows the percentage change in business-hours rates between the 2020 and 2021–22 regulatory years.

Table 16.3 Comparison between AusNet Services' proposed prices for 2021–22 and approved prices for 2020 ($2020–21) - business hours

	2020 (approved)	2021–22 (AusNet Services' proposal)	Change (per cent)
Connection service			
Single Phase Overhead – Business Hours	437.66	482.29	10
Single Phase underground – Business Hours	227.30	209.63	–8
Single Phase underground with a directly connected meter on group metering panel – Business Hours	NA	460.94	NA
Multi-phase overhead with a directly connected meter – Business Hours	467.75	552.80	18
Multi-phase overhead with a CT connected meter	627.98	1055.42	68
Multi-phase underground with a directly connected meter – Business Hours	340.14	338.81	–0.4
Multi-phase underground with a directly connected meter on group metering panel – Business Hours	NA	590.12	NA
Multi-phase underground with a CT connected meter – Business Hours	490.75	841.42	71
95mm2 overhead service from LVABC – Business Hours	721.27	832.10	15
Establish temporary supply connection – Business Hours	368.25	482.29	31
Appointment – inspection of group or CT metering prior to connection – Business Hours	NA	502.62	NA
Service truck - Disconnect / Reconnect at pole or pit – Business Hours	368.25	553.84	50
Network ancillary services			

22 Origin, *RE: Submission to Victorian electricity distributors regulatory proposals*, 3 June 2020, pp. 7–8.

23 AER analysis; AusNet Services, *2021—26 Electricity Distribution Price Review Part IV*, 31 January 2020, pp. 49–51; AusNet Services, *Alternative Control - Build up of Prices*, 31 January 2020, 'Fee based ACS'!.

	2020 (approved)	2021–22 (AusNet Services' proposal)	Change (per cent)
Meter equipment test – Single Phase	173.39	297.72	72
Meter equipment test – Single Phase Each Additional Meter at same site	64.59	66.40	3
Meter equipment test – Multi Phase	205.71	359.85	75
Meter equipment test – Multi Phase	96.89	98.37	2
Each Additional Meter at same site	209.54	205.99	-2
Wasted Truck Visit – customer not ready for their requested works	161.49	304.14	88
Assessment of PV & small generator installation enquiry, up to 30kW	214.10	304.14	42
Auxiliary metering services			
Remote special read	1.48	1.16	–22
Remote meter reconfig	30.89	15.11	–51
Field Officer Visit	20.26	34.80	72

Source: AER analysis; AusNet Services, *Alternative Control - Build up of Prices*, 31 January 2020, 'Connection fees'!.

Given that labour is the principal input into many fee-based services, the large price movements for fee-based services appear at odds with the small changes to the labour rates for quoted services. As noted earlier, AusNet Services' labour rates for quoted services increase by 0.51 per cent between 2020 and 2021–22.

AusNet Services stated its proposed prices for fee-based services are based on competitively tendered contract rates. As these rates are market tested, AusNet Services considers it reasonable to assume that they represent the efficient cost of providing those services. AusNet Services considers competitive tendering, and the active management of outsourced contracts, provides assurance that the costs incurred are efficient and that service quality is maintained.[24]

While they do provide some assurance, we do not consider competitive tendering automatically result in contracts with efficient underlying costs. The extent to which contract rates reflect efficient costs will depend on the practices and parameters used in the tendering and selection process. For example, a distributor may opt for a contract that is not necessarily the lowest cost because the contract entails a higher quality product or service. Such a contract would not be efficient if end customers do not demand the higher quality product or service—that is, a lower quality and lower cost contract may suffice. Of course, the converse can also be true.

[24] AusNet Services, *2021–26 Electricity Distribution Price Review: Part IV*, 31 January 2020, p. 48.

On the other hand, AusNet Services' proposed prices for the 2021–26 regulatory control period benchmark reasonably well against the other Victorian distributors—acknowledging there are limits to comparing fee-based services between distributors.[25] Marsden Jacob's benchmarking analysis identified only one service ("Service truck - Disconnect / Reconnect at pole or pit") which was relatively high compared to the corresponding service provided by the Queensland distributors.[26] AusNet Services considers Marsden Jacob may not have compared like-for-like services.[27] On the basis of arguments presented by AusNet Services, we have accepted the majority of its proposed business hours prices for fee-based services.

We do, however, have concerns with the increases in charges for AusNet Services' fee-based services provided after hours. The proposed 2021–22 prices for connection-related fee-based services are on average 180 per cent higher than for 2020 (after adjusting for inflation).[28] We discuss our consideration of AusNet Services' proposed after-hours prices for fee-based services in the next section.

16.1.4.2 Mark-ups for after-hours rates

Regarding the Victorian distributors in general, AGL submitted there are differences in charges for services performed during business hours and after hours.[29]

AusNet Services' proposed after-hours prices have an average mark-up of 187 per cent compared to the proposed business-hours prices. Even without the 509 per cent mark-up for the "Single Phase Underground" connection service, the average mark-up would still be 146 per cent. As Table 16.4 shows, AusNet Services' proposed after-hours prices are at least double the business-hours prices. The only exception is the after-hours price for the "Multi-phase overhead with a CT connected meter" service, which is 69 per cent higher than the business-hours rate.

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25 Specific fee-based services vary between distributors. Even in cases where services appear identical in name, the actual service performed may differ in specific details. Further, certain inputs may differ between distributors that reflect their networks. For example, average travel times may be longer in regional networks compared to urban networks due to longer distances (although traffic levels may be higher in urban networks). See also Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet: Advice to the Australian Energy Regulator*, 30 June 2020, pp. 14–16 and 20.

26 Only Ergon and Energex offered a comparable service. Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet: Advice to the Australian Energy Regulator*, 30 June 2020, pp. 19 and 21.

27 AusNet Services noted the Queensland distributors have dozens of approved fees for connection-related services. AusNet Services provided examples of such services they consider are more comparable (in terms of price and service description) to the "Service truck - Disconnect / Reconnect at pole or pit" service. AusNet Services, *Response to IR056*, 31 July 2020, pp. 2–3.

28 AER analysis; AusNet Services, *2021–26 Electricity Distribution Price Review Part IV*, 31 January 2020, pp. 49–50; AusNet Services, *Alternative Control - Build up of Prices*, 31 January 2020, 'Fee based ACS'!.

29 AGL, *Submission: Victorian electricity distribution determination 2021–26*, 3 June 2020, p. 5.

Table 16.4 AusNet Services' mark-up on after-hours prices, compared to business-hours prices (per cent)[30]

	Markup (per cent)
Connection services	
Single Phase Overhead	165
Single Phase Underground	509
Multi-phase overhead with a directly connected meter	131
Multi-phase overhead with a CT connected meter	69
Multi-phase underground with a directly connected meter	277
Multi-phase underground with a CT connected meter	111
95mm2 overhead service from LVABC	153
Establish temporary supply connection	165
Auxiliary metering services	
Field officer	100

Source: AusNet Services, *Alternative Control - Build up of Prices*, 31 January 2020, 'Fee based ACS'!.

AusNet Services acknowledged its proposed after-hours prices for fee-based services involve substantial increases compared the 2016–20 regulatory control period. AusNet Services stated the previous after-hours rates were based on line-worker after-hours unit rates and did not consider the longer travel times and higher support costs associated with after-hours work. Further, AusNet Services stated these rates did not incorporate market-tested after-hours unit rates.[31]

It is unclear why travel times would be longer for work performed after hours. For example, it could be argued that travel times would be shorter due to lower traffic levels. It is also unclear what support costs would be higher when performed after hours. Regarding AusNet Services' point regarding market-tested unit rates, we noted in section 16.1.4.1 that competitive tendering does not necessarily result in efficient outcomes.

We further note the other Victorian distributors' after-hours mark-ups on fee-based services are generally much lower than AusNet Services' mark-ups in percentage terms. They are largely in the 10 per cent to 40 per cent range, with some exceptions.[32]

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30 The mark-up is calculated as the after-hours price divided by the business-hours price minus one. Hence, a mark-up of 100 per cent means the after-hours price is double the business-hours price.

31 AusNet Services, *2021–26 Electricity Distribution Price Review Part IV*, 31 January 2020, p. 48.

32 AER, *Draft decision: CitiPower Distribution Determination 2021 to 2026: Attachment 16: Alternative control services*, September 2020; AER, *Draft decision: Powercor Distribution Determination 2021 to 2026: Attachment*

We therefore do not consider AusNet Services' after-hours mark-ups on fee-based services are appropriate.

In its labour rates analysis, Marsden Jacob considered that, without specific evidence on the split of after-hours work, the average after-hours rate would lie between the main categories of time and a half and double time. Marsden Jacob's assessment of the electricity supply sector suggests it is likely that most overtime incurs time and half. A simple average suggests the average after-hours rate would not exceed 1.75 times the standard rate (or a mark-up of 75 per cent).[33]

Consistent with previous distribution determinations, we consider Marsden Jacob's recommendation on after-hours rates is reasonable.[34] We have therefore reduced AusNet Services' after-hours charges such that they include a mark-up of 75 per cent compared to the business-hours price. The exception is the after-hours price for the "Multi-phase overhead with a CT connected meter" service, which, because its mark-up of 69 per cent, falls within Marsden Jacob's recommendation.

16.1.4.3 Wasted truck visits

AusNet Services proposed a fee for "Wasted Truck Visit – customer not ready for their requested works" of $205.99 ($2020–21). This is 2 per cent lower than the fee in the 2020 year of $209.54 ($2020–21).

AGL accepted it is reasonable to charge for failed or wasted visits where a field crew cannot undertake the requested task at the site due to customer fault.[35] Speaking of the Victorian distributors in general, AGL and Origin noted there are instances where the wasted visit fee is higher than the fee for the requested service. They considered the failed field visit fee should be the same or less than the fee for the requested service because the time at the site is reduced and no materials are used.[36]

However, this concern does not apply to AusNet Services' "Wasted Truck Visit" charge. The "Wasted Truck Visit" charge is lower than the proposed prices for AusNet Services' other fee-based ancillary network services.

16: Alternative control services, September 2020; AER, *Draft decision: United Energy Distribution Determination 2021 to 2026: Attachment 16: Alternative control services*, September 2020; AER, *Draft decision: Jemena Distribution Determination 2021 to 2026: Attachment 16: Alternative control services*, September 2020.

33 Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet: Advice to the Australian Energy Regulator*, 30 June 2020, pp. 13–14.

34 AER, *Draft decision: SA Power Networks Distribution Determination 2020 to 2025; Attachment 15: Alternative control services*, October 2019, pp. 17–18; AER, *Draft decision: Energex Distribution Determination 2020 to 2025: Attachment 15: Alternative control services*, October 2019, p. 10; AER, *Draft decision: Ergon Energy Distribution Determination 2020 to 2025: Attachment 15: Alternative control services*, October 2019, p. 10.

35 AGL, *Submission: Victorian electricity distribution determination 2021–26*, 3 June 2020, p. 5.

36 AGL, *Submission: Victorian electricity distribution determination 2021–26*, 3 June 2020, p. 5; Origin, *Submission: RE: Submission to Victorian electricity distributors regulatory proposals*, 3 June 2020, p. 8.

We agree with AGL, it is important to clarify in its revised proposal where AusNet Services would levy the failed field visit fee.[37]

In response to an information request, AusNet Services confirmed this charge applies only to wasted visits related to fee-based network ancillary services and fee-based connection-related services. The charge does not apply to wasted visits related to other services such as quoted services and standard control services.[38]

If AusNet Services intends to apply other wasted visit charges to other types of services (for example, its quoted services and auxiliary metering services), we require AusNet Services to clarify this in its revised proposal.[39] If so, AusNet Services must set out the price levels of these other wasted visit charges and provide the methods and reasons for arriving at those price levels if they differ from the proposed Wasted Truck Visit charge.

16.1.4.4 Abolishment of charges for the 2021–26 regulatory control period

AusNet Services, along with other Victorian distributors, proposed to abolish fees for "Remote de-energisation" and "Remote re-energisation". However, unlike the other distributors, AusNet Services has not proposed to abolish fees for the provision of remote special meter reads.

AGL submitted the Victorian distributors are leading the National Electricity Market (NEM) for the provision of remote services for meter reads, re-energisation and de-energisation as a result of the smart meter rollout.[40] AGL, along with Energy Consumers Australia (ECA) and the Victorian Department of the Environment, Land, Water and Planning (DELWP), welcomed the abolishment of remote re-energisation and remote de-energisation fees from 1 July 2021.[41]

AusNet Services stated it led an initiative across the Victorian distributors to abolish charges that apply when customers move in or move out of premises following discussions with its Customer Forum. As a result of this initiative, Victorian customers with smart meters will no longer pay these charges. This outcome provides a tangible example of the benefits that smart meters are delivering to customers. Specifically, the technology has improved the timeliness and convenience of the service as well as reducing the costs of providing it.[42]

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37 AGL, *Submission: Victorian electricity distribution determination 2021–26*, 3 June 2020, p. 5.

38 AusNet Services, *Response to IR056*, 31 July 2020, p. 2.

39 The Victorian distributors may not charge a wasted truck visit fee in relation to the provision of standard control services. See AER, *Final framework and approach: AusNet Services, CitiPower, Jemena, Powercor and United Energy - Regulatory control period commencing 1 January 2021*, January 2019, pp.32–33.

40 AGL, *Submission: Victorian electricity distribution determination 2021–26*, 3 June 2020, p. 5.

41 AGL, *Submission: Victorian electricity distribution determination 2021–26*, 3 June 2020, p. 5; DELWP, *Victorian Government submission on the Electricity Distribution Price Review 2021–26*, 29 May 2020, p. 5; ECA, *Victorian electricity distributors regulatory proposals 2021–2026 submission: Attachment 1*, June 2020, p. 37.

42 AusNet Services, *2021–26 Electricity Distribution Price Review Part IV*, 31 January 2020, p. 25.

We agree with AusNet Services that such developments are a good outcome for customers.

Local Governments called on the AER to encourage the practice of abolishing charges across all distributors, where possible, because of system improvements such as the rollout of smart meters. Local Government also recommended we assess whether these are being applied evenly across all distributors.[43] Similarly, DELWP encouraged us to "to ensure operational efficiencies delivered by AMI [advanced metering infrastructure] are resulting in sustained cost savings for consumers."[44] Meanwhile the ECA "look forward to see[ing] what other customer charges can be removed entirely" (as benefits resulting from smart meters).[45]

We consider AusNet Services have generally chosen the appropriate services to offer free of charge in the 2021–26 regulatory control period. As discussed above, the costs for these services have become immaterial due to the rollout of smart meters.

The only exception to this is the "Remote special meter read" service. AusNet Services' proposed price for this service is $1.16 (nominal) in 2021–22. The other Victorian distributors are proposing to offer this service free of charge in the 2021–26 regulatory control period.[46] This suggests the costs to provide the "Remote special meter read" service is not material.

We therefore require AusNet Services to offer this service free of charge in the 2021–26 regulatory control period.

We are also interested in receiving further submissions pointing to other services whose costs may have similarly become immaterial due to the smart meter rollout and so can be offered free of charge. We will consider such submissions for our final decision.

16.1.4.5 Year one price for "Non-Standard AMI Data Request" service

AusNet Services proposed to offer a new service, "Non-standard AMI data subscription" from the second year (2022–23) of the 2021–26 regulatory control period. It will allow for customers or third parties to request electricity network data or consumption data outside legislative obligations.[47]

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43 Local Government, *Local Government response to the Victorian Electricity Distribution Price Review (EDPR) 2021–26: Prepared by the Victorian Greenhouse Alliances*, May 2020, p. 23.

44 DELWP, *Victorian Government submission on the Electricity Distribution Price Review 2021─26*, 29 May 2020, p. 5.

45 ECA, *Victorian electricity distributors regulatory proposals 2021─2026 submission: Attachment 1*, June 2020, p. 37.

46 Jemena, *2021–26 Electricity Distribution Regulatory Proposal: Attachment 07-11: Alternative Control Services*, 31 January 2020, pp. 26–27; Jemena, *Attachment 07-31ACS Fee Based Services Model*, 31 January 2020, 'Calc|ACS prices'!P44:T44.

47 AusNet Services, *Electricity Distribution Price Review 2022–26: Part IV*, 31 January 2020, p. 27.

AusNet Service derived the proposed prices for the service by dividing the annual costs by the forecast number of customers who opt for the subscription service. Labour support costs comprise the majority of annual costs—approximately $180 000 ($ nominal) per annum increasing by CPI—with a data provision cost of $1 per customer. AusNet Services forecasts relatively low uptake of the service in 2022–23 of 1 000 customers. This increases to 10 000 customers, 20 000 customers then 30 000 customers in the final three years of the 2021–26 regulatory control period.[48]

This results in a spike in the price in 2022–23, which then falls significantly in the following three years, as Table 16.5 shows.

Table 16.5 AusNet Services' proposed price for non-standard data subscription ($ nominal)

	2021–22	2022–23	2023–24	2024–25	2025–26
Non-standard AMI data subscription (per month)	NA	$15.08	$1.58	$0.85	$0.61

Source: AusNet Services, *Electricity Distribution Price Review 2022–26: Part IV*, 31 January 2020, p. 27.

We do not consider this is consistent with the price cap formula for ancillary network services as set out in our F&A and with section 14.5.2 of attachment 14 of this draft decision.

We therefore substitute the prices set out in Table 16.6. We derived the prices in Table 16.6 by setting the 2021–22 price such that:

- Expected revenues from the service for the 2021–26 regulatory control period are equal in net present value terms to AusNet Services' expected revenues, plus extra data costs related to an additional 4 000 customers in 2022–23.[49]
- Prices from 2022–23 to 2025–26 are derived using CPI and X-factors as set out in our price cap formula in section 14.5.2 of Attachment 14 of this draft decision. We used our draft decision X-factors as set out in Table 16.30 of Appendix A.

As noted in Table 16.6, the price for 2021–22 is included only for the purpose of complying with the price cap formula. AusNet Services will not provide the service (nor incur costs for providing the service) in that year. AusNet Services should note this arrangement in its pricing proposal for the 2021–22 regulatory year.

[48] AusNet Services, *Auxiliary Metering Services Charges Model*, 31 January 2020, 'Non-Standard AMI Data Request'!A1:G4.

[49] We assumed 5 000 customers would take up the service in 2022–23 rather than 1 000 (as AusNet Services proposed) because of the much lower price.

Table 16.6 AER draft decision price for non-standard data subscription ($2020–21)

	2021–22	2022–23	2023–24	2024–25	2025–26
Non-standard AMI data subscription (per month)	$0.84 (for compliance purposes only)	$0.88	$0.91	$0.95	$1.00

Source: AER analysis.

16.2 Metering

We are responsible for the economic regulation of the regulated metering services provided by the Victorian distributors. These include:

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

This section deals with type 5 and 6 (inc. smart metering) services and with metering exit fees.[50] Type 7 metering services and auxiliary metering services other than metering exit fees are considered as a part of the broader ancillary network services in section 16.1.

Unlike other jurisdictions in the NEM, the Victorian distributors are the monopoly providers of most metering services, including smart metering services. This approach differs from the Power of Choice reforms that apply across the rest of the NEM, arising from the Victorian Government's decision to implement a smart meter roll-out program.

- In 2006, the Victorian Government initiated a roll-out of smart meters to all households and small businesses with electricity use of up to 160 MWh per annum under the AMI program.[51] Through Orders in Council in 2008, the Victorian Government established obligations on distribution businesses to install meters with specified AMI functionality,[52] together with supporting communications infrastructure, IT systems and processes.

[50] Metering exit services allow the distributor to recover the written-down value of, as well as the efficient costs of removing and disposing of, AMI meters. This currently occurs when brownfield sites become embedded networks, resulting in the removal of existing meters.

[51] Victorian Government, *Order-In-Council, No. S 346*, October 2017, cl. 2(b).

[52] Department of Primary Industries, *Minimum AMI Functionality Specification (Victoria)*, September 2008.

- In 2015 the Australian Energy Market Commission (AEMC) introduced metering contestability to residential and small business electricity consumers through the Power of Choice reforms.[53] These reforms, which apply in other jurisdictions, do not apply in Victoria due to the existing AMI program. Under these reforms, distributors in other jurisdictions in the NEM are no longer the monopoly providers of new meters, and type 5 and 6 meters no longer meet the minimum standards for new meters.
- In 2017, the Victorian Government deferred metering contestability in Victoria through an Order in Council. Consequently, Victorian distributors remain the monopoly providers of type 5 and 6 (inc. smart metering) services, and have the role of metering coordinator, metering provider, and metering data provider for AMI meters for residential and business customers consuming up to 160 MWh of electricity per annum.

AusNet Services' current meter fleet is comprised of 98.58 per cent AMI meters and 1.42 per cent non-AMI meters.[54]

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

- Type 5 and 6 (inc. smart metering) services (regulated service only)
- Metering exit fees.

For our draft decision on other regulated metering services (for example, type 7 metering services and auxiliary metering services other than metering exit fees) see section 16.1 on ancillary network services.

16.2.1 Draft decision

Our draft decision is to:

- Reject AusNet Services' proposed approach to reallocate 50 per cent of some IT and communications systems costs from revenue-capped type 5 and 6 (incl. smart metering) services to standard control services (SCS). Our draft decision substitutes an alternative cost reallocation of 6 per cent of this expenditure to SCS where we consider that this allows for a more appropriate allocation of costs based on data provided by AusNet Services.
- Reject AusNet Services' proposed revenues for type 5 and 6 (incl. smart metering) services and substitute alternative revenues for type 5 and 6 (incl. smart metering) services that have been calculated by:
    - adjusting the 2021 opening metering asset base to reflect our December 2016 AMI transition charges applications final decision

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53 AEMC, *Competition in metering services information sheet*, November 2015.

54 AusNet Services, *ASD - Metering Asset Management Strategy - Part 1 271119 - PUBLIC*, January 2020, p.11.

- updating forecast 2019 values for capital expenditure, operating expenditure, and meter volumes with actual results reported to the AER in regulatory information notices (RINs)
- applying metering volume forecasts to operating and capital expenditure that incorporate adjustments for the COVID-19 pandemic
- applying our alternative cost reallocation calculations
- applying our draft decision rate of return, labour escalators, and inflation forecast consistent with standard control services.[55]

- Reject AusNet Services' proposed metering exit fees and substitute alternative charges.

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

Our draft decision allows for a revenue requirement for type 5 and 6 (incl. smart metering) services for the 2022–26 regulatory control period of $296.95 million ($ nominal) compared to AusNet Services' proposed $292.85 million ($ nominal). This is expected to lead to slightly higher annual metering charges over the 2021–26 regulatory control period than those proposed by AusNet Services. As metering services are subject to a revenue cap, we have not set prices in this draft decision.[56]

There are two key drivers affecting our draft decision on AusNet Services' revenue requirement for type 5 and 6 (incl. smart metering) charges:

- The first key driver is the opening asset base. AusNet Services' proposed an opening asset base is inconsistent with our most recent decision on AMI metering, (our December 2016 AMI transition charges applications final decision).[57] The application of the more recent opening asset base has a downward effect on AusNet Services' revenue requirement.
- The other key driver is the re-allocation of a proportion of AusNet Services' operating and capital expenditure. This has an upward effect on AusNet Services' revenue for type 5 and 6 (incl. smart metering) services from 2021 onwards, but a corresponding downward effect on SCS revenues.

The re-allocation of costs between type 5 and 6 (incl. smart metering) services and SCS has no material impact on the total revenue that AusNet Services can earn for the provision of direct control services. However, it does change how costs are recovered from customers. Under our draft decision more of the costs will be recovered through metering services than through standard control network tariffs as proposed by

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55 For further information, see the overview, attachment 3 - rate of return and attachment 6 - operating expenditure of this draft decision.

56 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.

57 AER, *Final decision − Advanced metering infrastructure − Transition Charges Applications*, December 2016.

AusNet Services. However, as 98.58 per cent of AusNet Services' meter fleet consists of AMI meters,[58] this cost re-allocation results in little difference in the ultimate price outcomes for consumers.

Table 16.7 sets out the building block requirements that make up to the total revenue requirement.

Table 16.7 Draft decision – metering annual revenue requirement for the 2021–26 regulatory control period ($ nominal)

	2021–22	2022–23	2023–24	2024–25	2025–26	Total
Depreciation	26.39	29.49	32.37	35.14	37.58	160.97
Return on capital	9.65	8.94	8.07	7.12	6.10	39.87
Opex[a]	15.59	16.24	16.84	17.33	17.86	83.86
Tax	2.95	2.21	2.24	2.50	2.80	12.70
Unsmoothed revenue requirement	54.58	56.87	59.52	62.09	64.35	297.40
X-factor	n/a	0%	0%	0%	0%	n/a
Smoothed revenue	56.64	57.98	59.36	60.77	62.21	296.95

Note: (a) Operating expenditure includes debt raising costs.

Source: AER, Draft decision AusNet - distribution determination 2021–26 - Metering PTRM, September 2020.

Once the total revenue requirement is determined from the final building block components, we are required to set a revenue profile for the 2021–26 regulatory control period. We do this by adjusting the annual revenues, but maintaining the same total revenue requirement by measuring the revenue in real 2020–21 dollars (known as the NPV or net present value). This allows us to set or 'smooth' the revenue over the regulatory control period to deliver a preferred revenue profile. For AusNet Services, this NPV is $260.96 million ($2020–21).

For the 2021–26 regulatory control period, we have set a revenue profile for AusNet Services that consists of a small decrease in revenue in the first year, followed by flat expected revenue in real terms for the following years. This means that after the decrease in the first year, the expected revenue in following years will only increase by inflation, to give a total expected revenue of $260.96 million ($2020–21) to match the NPV based on the total building block components. The movements from year-to-year

[58] AusNet Services, *ASD - Metering Asset Management Strategy - Part 1 271119 - PUBLIC*, January 2020, p.11.

that create our revenue path are represented by P0 for the first year and X-factors for years 2–5 to easily demonstrate the movements.[59]

Table 16.8 provides the P0 and X-factors that AusNet Services proposed, and those of our draft decision. Table 16.9 provides the resulting expected or 'smoothed' revenue for the 2021–26 regulatory control period as proposed by AusNet Services, and set by our draft decision.

Table 16.8 Draft decision P0 and X-factors

	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%	0%	0%	0%

Note: AusNet Services' proposed P0 adjustment is calculated from its proposed 2021 revenue for the 6-month period 1 January 2021 to 30 June 2021 doubled and does not include any adjustments to reflect our 2016 Final Decision on advanced metering infrastructure - transition charges applications. The P0 movement for our draft decision is calculated from approved 2020 revenue, and indexed to $2020/21 for comparison. Our 2020 approved revenue includes a downward adjustment as a result of our December 2016 Final Decision on advanced metering infrastructure – transition charges applications. Accordingly our draft decision P0 adjustment is not comparable to AusNet Services' proposed P0 adjustment. We further note that negative P0s and X-factors reflect increases in revenues due to the CPI-X revenue control formula.

Source: AER, Draft decision AusNet - distribution determination 2021–26 - Metering PTRM, September 2020; AusNet Services, EDPR 2022–26 Regulatory Proposal - Supporting document - Metering PTRM - FY22-26, January 2020.

Table 16.9 Draft 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

Source: AER, Draft decision AusNet - distribution determination 2021–26 - Metering PTRM, September 2020; AusNet Services, EDPR 2022–26 Regulatory Proposal - Supporting document - Metering PTRM - FY22-26, January 2020.

Cost allocation

Our draft decision is to reject AusNet Services' proposed reallocation of some AMI IT and communication systems expenditures (capital and operating expenditure (capex and opex)) that are currently allocated to type 5 and 6 (incl. smart metering) services to a shared allocation 50:50 of between type 5 and 6 (incl. smart metering) services and

[59] X-factors to apply in years 2–5 of the regulatory control period are recalculated prior to use in the relevant annual pricing proposal to reflect updated return-on-debt portfolios.

SCS. While we have generally accepted that the underlying causal allocator identified by AusNet Services may be an appropriate allocator for shared services, we disagree with the way that allocator has been calculated. We have substituted a revised allocation where we consider that it is more appropriate to do so. For further explanation see section 16.2.4.1.

Our draft decision is to reduce the expenditure allocated from type 5 and 6 (incl. smart metering) services to SCS. Table 16.10 and Table 16.11 show AusNet Services' proposed capex allocated to type 5 and 6 (incl. smart metering) services and AusNet Services' proposed reallocation of opex to SCS, compared to our draft decision.

Table 16.10 AMI IT and communications capex allocated to metering 2022–26 ($ million, 2020–21)

	Proposed	Draft Decision
IT	2.91	5.49
Communications	20.31	35.61
Total	23.21	41.10

Sources: AER, Draft decision AusNet - distribution determination 2021–26 - Metering PTRM, September 2020; AusNet Services, EDPR 2022–26 Regulatory Proposal - Supporting document - Metering PTRM - FY22-26, January 2020.

Table 16.11 AMI ICT opex re-allocated from metering ACS to SCS 2022–26 ($ million, 2020–21)

	2021–22	2022–23	2023–24	2024–25	2025–26	Total
Proposed	5.74	5.81	5.95	6.12	6.18	29.80
Draft Decision	1.61	1.61	1.61	1.61	1.61	8.07

Sources: AER, Draft decision AusNet - distribution determination 2021–26 - Metering opex model, September 2020; AusNet Services, EDPR 2022–26 Regulatory Proposal - Supporting document - Metering opex model, January 2020; AusNet Services, Electricity Distribution Price Review 2022–26 Part IV, January 2020, p.18.

16.2.1.2 Exit fees

Our draft decision sets metering exit fees that reflect adjustments made to the building block components for type 5 and 6 (inc. 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 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.

The metering exit fees resulting from our draft decision are on average over the regulatory control period 3 per cent lower than those proposed by AusNet Services.

Our draft decision metering exit fees for 2021−22 are set out in Appendix B. Prices for subsequent years will be determined by the control mechanism formula set out in attachment 14. Our draft decision on the X-factors for metering exit services is also set out in Appendix B.

16.2.2 AusNet Services' proposal

16.2.2.1 Type 5 and 6 (inc. smart metering) services

Metering systems cost reallocation

In their proposals for the 2021–26 regulatory control period, the Victorian distributors advised that metering and power quality data provided through AMI is increasingly used to support distribution network functions, providing information on the performance, safety and maintenance of distribution networks. Additional uses also include network planning, call centre operations and outage management.[60]

The Victorian distributors have taken different approaches to how AMI IT and communication costs are allocated between ACS − specifically type 5 and 6 (incl. smart metering) services − and SCS to reflect these additional uses of metering and power quality data.

For the 2021–26 regulatory control period, AusNet Services proposed to reallocate some metering IT and communication expenditures between SCS and ACS, shifting a greater proportion of the expenditure to SCS. The rationale provided was that, in addition to supporting core metering functions, the AMI metering network has been enhanced to collect a range of important distribution network data that can be used to provide insights into the performance, safety and maintenance aspects of the distribution network.[61]

In particular, AusNet Services proposed that costs related to the following systems be re-allocated from the current allocation of 100 per cent ACS to 50 per cent shared between ACS and SCS:

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[60] AusNet Services, *Electricity Distribution Price Review 2022–26 Regulatory Proposal Part IV 310120 PUBLIC*, January 2020, pp. 11-14; CitiPower, *Regulatory Proposal 2021–26,* January 2020, pp. 133-135; Jemena*, 2021–26 Regulatory Proposal*, January 2020, p.71; Powercor, *Regulatory Proposal 2021–26*, January 2020, pp. 154-155; United Energy, *Regulatory Proposal 2021–26*, January 2020, p. 185.

[61] AusNet Services, *Electricity Distribution Price Review2022–26 Regulatory Proposal Part IV 310120 PUBLIC*, January 2020, p. 10.

- 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.[62]

AusNet Services submitted they are now using these systems to carry out several distribution functions, including network planning, call centre operations, and outage management. In addition, AusNet Services submitted it now collects additional (non-metering) power quality data from meters, which is solely utilised to provide SCS.[63]

Revenue

Consistent with the F&A and past regulatory determinations, AusNet Services proposed a revenue cap as the form of control for type 5 and 6 (incl. smart metering) services in the 2021–26 regulatory control period.[64]

AusNet Services tested its metering proposal with its Customer Forum. The Customer Forum was part of a trial (New Reg trial) conducted by AusNet Services and supported by the AER to achieve a more customer-focused electricity distribution price determination. Although the AER did not agree that metering would be within scope of negotiations under this trial, AusNet Services and the Customer Forum agreed to include it within their negotiations because of the unique role that smart meters play in Victorian networks, and the potential for enhanced metering services to benefit customers.[65] The Customer Forum negotiated on the 3G shutdown/4G upgrade costs to the AMI network and, after negotiations, were satisfied the expenditure was justified. The Customer Forum were also supportive of AusNet Services' proposal to reallocate some AMI IT and communications metering costs to SCS and of the lower meter charges resulting.[66] AusNet Services noted that it also incorporated feedback from the AER's Consumer Challenge Panel, sub-panel 17 (CCP17).[67]

AusNet Services proposed to apply a building block approach to determine revenues for type 5 and 6 (incl. smart metering) services. AusNet Services proposed to use the

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62 AusNet Services, *Electricity Distribution Price Review 2022–26 Regulatory Proposal Part IV 310120 PUBLIC*, January 2020, p. 14.

63 ibid.

64 AusNet Services, *Electricity Distribution Price Review 2022–26 Regulatory Proposal Part IV 310120 PUBLIC*, January 2020, p. 15.

65 AusNet Services Customer Forum, *AusNet Services 2021–25 Electricity Distribution Price Review Customer Forum Final Engagement Report*, January 2020, p.44.

66 AusNet Services Customer Forum, *AusNet Services 2021–25 Electricity Distribution Price Review Customer Forum Final Engagement Report*, January 2020, pp.44-45.

67 AusNet Services, *Electricity Distribution Price Review2022–26 Regulatory Proposal Part IV 310120 PUBLIC*, January 2020, p. 2

base-step-trend approach to develop its operating expenditure forecasts and proposed three step changes to its base operating expenditure.[68]

Using its forecast building block components, AusNet Services calculated its proposed annual revenue requirement for the 2021–26 regulatory control period. This is set out in Table 16.12. AusNet Services proposed X-factors of –0.89 per cent for years 2022–23 to 2025–26 of the regulatory control period.[69] As the control mechanism formula is of the form CPI–X, a negative X-factor represents an increase in revenues.

Table 16.12 —Proposed metering annual revenue requirement ($ million, nominal)

	2021–22	2022–23	2023–24	2024–25	2025–26	Total
Depreciation	29.06	32.29	34.29	36.60	38.72	170.97
Return on capital	11.21	10.27	9.13	7.93	6.73	45.26
Opex	11.39	11.93	12.35	12.59	12.95	61.20
Tax	3.10	2.76	2.92	3.20	3.33	15.32
Unsmoothed revenue requirement	54.76	57.26	58.69	60.32	61.73	292.75
X-factor	n/a	-0.89%	-0.89%	-0.89%	-0.89%	n/a
Smoothed revenue requirement	54.76	56.60	58.51	60.47	62.51	292.85

Source: AusNet Services, Electricity Distribution Price Review 2022–26 - Supporting document - Metering PTRM FY22–26, January 2020.

AusNet Services included indicative annual metering charges in its proposal. These indicative charges are based on its proposed revenue for the 2021–26 regulatory control period. For the 2021–26 regulatory control period, AusNet Services proposed to reduce its average annual metering charge for residential and small business customers by 31 per cent.[70]

Table 16.13 sets out AusNet Services' indicative charges.

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[68] AusNet Services, *EDPR 2022–26 Regulatory Proposal - Supporting document - Metering opex model 310120,* January 2020.

[69] AusNet Services, *EDPR 2022–26 Regulatory Proposal - Supporting document - Metering PTRM - FY22-26 - 310120*, January 2020.

[70] AusNet Services, *Electricity Distribution Price Review2022–26 Regulatory Proposal Part IV 310120 PUBLIC*, January 2020, p.4.

Table 16.13 —Proposed Alternative Control Metering Service Charges ($ nominal)

Meter type	2021–22	2022–23	2023–24	2024–25	2025–26
Single phase single element	59.53	60.46	61.39	62.38	63.39
Single phase two element with contactor	71.30	72.60	73.92	75.27	76.64
Multiphase	85.90	87.30	88.72	90.17	91.64
Multiphase with contactor	95.20	96.80	98.43	100.08	101.76
Multiphase CT connected	118.00	119.20	120.41	121.64	122.87

Source: AusNet Services, Electricity distribution price review 2022–26 Part IV, January 2020, p. 21.

16.2.2.2 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 when brownfield sites become embedded networks, resulting in the removal of existing meters.[71]

AusNet Services' proposed meter exit fees are set out in Table 16.14.

Table 16.14 AusNet Services' proposed metering exit fees ($ nominal)

Meter type	2021–22	2022–23	2023–24	2024–25	2025–26
Single phase single element	390.38	367.78	341.94	314.89	287.57
Single phase two element with contactor	387.01	364.86	339.46	312.84	287.57
Multiphase	388.91	366.53	340.89	314.03	287.57
Multiphase with contactor	388.91	366.53	340.89	314.03	287.57
Multiphase CT connected	389.10	366.68	341.02	314.14	287.57

Source: AusNet Services, Electricity distribution price review 2022–26 Part IV, January 2020, p. 24.

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. Accordingly, we

[71] AER, Final Framework and Approach for Victorian Electricity Distributors, October 2014, p. 101.

made our assessment with regard to the framework for regulating alternative control services in the National Electricity Rules (NEL) and NER.[72]

For our draft 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[73] and the approved Cost Allocation Methodology for each distributor[74]
- consistency of approach with other regulated services, including the weighted average cost of capital (WACC) and labour escalators used for SCS
- our 2015 decisions for the 2016–20 regulatory control period and our 2016 decisions on AMI transition charges
- comparisons between the Victorian distributors, and
- stakeholder feedback, including information on the deliberations with the AusNet Services' Customer Forum as part of the New Reg trial.[75]

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 ACS, the AER has a greater discretion under the NER in making our assessment compared to standard control services. We have chosen to apply a streamlined version of a building block approach. This is consistent with our approach adopted for the current regulatory control period.

16.2.3.2 Metering exit fees

Consistent with our approach for the current regulatory control period, the inputs we used to calculate metering exit fees are:

- our draft decision on AusNet Services' opening metering asset base value for type 5 and 6 (inc. 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 draft 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 have accepted in this draft decision.

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72 NER, cl. 11.17.6(a).

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

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

75 AusNet Services Customer Forum, *AusNet Services 2021–25 Electricity Distribution Price Review Customer Forum Final Engagement Report*, January 2020, pp.44-47.

16.2.4 Reasons for draft decision

This section sets out in greater detail the reasons for our draft decision for each relevant service.

16.2.4.1 Type 5 and 6 (incl. smart metering) services

Form of control

We maintain our final F&A position to apply a revenue cap to type 5 and 6 (incl. smart metering) services as the form of control.[76] This revenue cap sets a total annual revenue for each year of the regulatory control period.[77] AusNet Services is then allowed to set prices that allow them to recover up to the total allowable revenue, calculated with proposed consumption forecasts, through the initial and annual pricing processes.

The revenue for the 2021–26 regulatory control period has been smoothed. The X-factor for each year of the 2021–26 regulatory control period is determined in the post-tax revenue model (PTRM) and is set out in Appendix B. The X-factor will be revised annually for the return on debt.

The control mechanism formula is set out in attachment 14 of this draft decision.

New Reg

New Reg was a joint initiative between the AER, Energy Networks Australia (ENA) and Energy Consumers Australia (ECA) to explore ways to improve sector engagement, and identify opportunities for regulatory innovation. The goal of this initiative was to ensure that customers' preferences drive energy network businesses' proposals and regulatory outcomes. Under the New Reg process a Customer Forum negotiates aspects of the regulatory proposal in advance of lodgement with the AER. The Customer Forum does not represent the perspectives of particular interests, instead it must represent the perspectives of all the distributor's customers. The Customer Forum's representatives are selected to credibly represent perspectives of all end users, be they residential, small business or commercial and industrial.[78]

AusNet Services was the first electricity distributor to conduct a trial of New Reg. AusNet Services Customer Forum consisted of five members and was supported by the AER to achieve a more customer-focussed electricity distribution price determination.

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[76] AER, *Final Framework and Approach – AusNet Services, Jemena, CitiPower, Powercor and United Energy Regulatory control period commencing 1 January 2021*, January 2019, p 54.

[77] The initial and annual pricing processes allow for adjustments to the revenue set in our determination to arrive at the total allowable revenue. These include adjustments for updated return on debt, actual inflation, incentive schemes, cost pass-throughs, and the true-up of actual revenues.

[78] For more details, see: <<https://www.aer.gov.au/networks-pipelines/new-reg/ausnet-services-trial>>

In considering the scope of negotiations the AER did not support metering as falling within scope under this trial. However, AusNet Services and the Customer Forum agreed to include it within the negotiations because of the unique role that smart meters play in Victorian networks, and the potential for enhanced metering services to benefit customers.[79]

Overall the Customer Forum was supportive of AusNet Services' metering proposal, recognising AMI meters are now capable of providing benefits to the distribution network and receptive to AusNet Services proposed reallocation of costs to SCS to reflect this use.

The Customer Forum identified the following customer benefits arising from the agreed position:

- a 31 per cent ($2021) reduction in metering charges
- the abolition of some remote connection and disconnection charges
- a continuing capacity to provide solar alerts and support real time energy usage information to customers.[80]

However, the Customer Forum questioned whether customers understood all the benefits associated with smart meters and advocated that AusNet Services continue to explain the benefits of smart meters to customers.

The Customer Forum also negotiated extensively with AusNet Services on transition costs related to Telstra's 4G system and after final negotiations considered the final transition costs to be justified.[81]

In making our draft decision we considered the outcomes arrived at by the Customer Forum. We have accepted AusNet Services' proposed transition costs to 4G, consistent with the Customer Forum's views. We also agree that AMI is increasingly used to support distribution network functions and that AMI communication system costs can now be shared between ACS and SCS. However, our draft decision does not support the proposed 50 per cent reallocation of some AMI communication costs to SCS and instead allows for a 6 per cent reallocation of these costs to SCS.

In making our decision we considered it important to refer to our cost allocation methodology guideline, which sets out that where costs are shared and material the costs be allocated on a causal basis.[82] We considered this approach would best support consistency of approach between other Victorian distributors and best ensure prices reflect underlying costs, should there be a move to contestability in the future. Our decision on cost reallocation is discussed in detail below.

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79 AusNet Services Customer Forum, *AusNet Services 2021–25 Electricity Distribution Price Review Customer Forum Final Engagement Report*, January 2020, p.44.

80 AusNet Services Customer Forum, *AusNet Services 2021–25 Electricity Distribution Price Review Customer Forum Final Engagement Report*, January 2020, pp.44-45.

81 ibid.

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

Metering systems cost reallocation

Overview

The distributors have taken different approaches to how AMI IT and communication costs are allocated between ACS and SCS. Our review has taken these different approaches into account and we have given consideration to the cost allocators and reasoning provided by each distributor.

Our draft decision is to reject AusNet Services' proposal to reallocate AMI IT and communication costs from ACS to SCS. AusNet Services proposed to reallocate several systems that were previously solely allocated to metering ACS to shared allocations between metering ACS and SCS (50:50). These systems are:

- 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.[83]

AusNet Services submitted that its proposed reallocation is driven by meter data volumes (with the data volumes being 15 per cent to ACS and 85 per cent to SCS). However, instead of using a 15:85 ACS:SCS allocation, AusNet Services applied an *ex post* adjustment, to reflect the size of all the data collected from its AMI systems and data system availability requirements, which resulted in a 50:50 ACS:SCS allocation.[84]

In making our draft decision we considered both the appropriateness of AusNet Services' proposal to use meter data volumes as a causal allocator as well as AusNet Services' proposed meter data requirements. We found meter data volumes to be an appropriate causal allocator for some systems, however we revised the meter data volume requirements. This resulted in a 94:6 ACS:SCS allocation for these systems instead of AusNet Services' proposed 50:50 allocation.

We have substituted this revised cost allocation only where we consider that the data provided can be used as a reasonable cost allocator. Where it cannot, and an alternative cost allocator has not been provided, we have accepted the allocation proposed. Further, where AusNet Services has not proposed a reallocation of costs for a particular initiative and program of work we have retained these allocations.

Background

There are three broad groups of activities that the AMI IT and communication systems support and across which costs can be allocated:

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83 AusNet Services, *Electricity distribution price review 2022–26 Part IV,* January 2020, p. 14.

84 AusNet Services, *Response to Information Request 52* - Q6, July 2020.

- The activities of the meter provider as a provider of metering services under the NER (ACS)
- The activities of the distributor in respect of market transactions and interactions under the NER (SCS)
- The activities of the distributor in operating the network (SCS).

2016−20 regulatory control period

This is not the first time we have considered the allocation of AMI IT and communication costs between ACS and SCS. In making our 2016–20 final decision we considered the allocation of AMI costs in the context of the expiry of the Advanced Metering Infrastructure Order in Council (AMI OIC), which required that all costs associated with AMI become regulated under the NER.[85] We engaged Energy Market Consulting Associates (EMCa) to help develop a cost allocation approach for our 2016–20 final decision.

EMCa considered that costs should be directly attributed (to distribution network SCS or metering ACS) only where the relevant systems are solely used to provide that service, or where use for the other services can be considered immaterial as defined by Australian accounting standards.

EMCa's recommended allocation of IT and communication opex costs is set out in Table 16.15 below. Where costs are shared and material, EMCa recommended the costs be allocated on a causal basis. However, EMCa did not identify any causal factors as the basis for the shared allocations. For capex, EMCa recommended that IT and communication related expenditures should be allocated solely to metering ACS.[86]

Table 16.15 EMCa recommended allocation of AMI IT and communications costs for 2016–20 final decision

Allocation between ACS/SCS	
Allocated solely to ACS metering	Communications infrastructure opex including

[85] In our 2016–20 draft decision we did not allocate any AMI costs to SCS. At the time, metering services were not subject to competition but, following NER changes, competition was scheduled to begin from December 2017.[85] We considered that a different approach to allocating costs across each of the Victorian distributors would not help in promoting effective competition. We considered a consistent approach to be preferable which could be dealt with through our Distribution Ring Fencing Guideline in accordance with a national framework, which was scheduled to be published by 1 December 2016. In the interim, we considered it was preferable to allocate all AMI costs to ACS.
In response to our 2016–20 draft decisions, the distributors disagreed with our decision to allocate all AMI costs to metering ACS. All of the Victorian distributors maintained that certain AMI costs should be allocated to SCS. We engaged Energy Market Consulting Associates (EMCa) to help develop a cost allocation approach for our 2016–20 final decision that could be applied across the Victorian distributors. We asked EMCa to focus on IT and communications costs as this was the main area where the service providers proposed to allocate costs to SCS.

[86] EMCa, *Advice on allocation of advanced metering infrastructure (AMI) IT and communications expenditure*, April 2016, p. iii.

Allocation between ACS/SCS	
	Network Management Systems (NMS), Metering Management Systems (MMS), Network Operations and Control Centre (NOCC)
	Metering data management systems
Allocated solely to SCS	Field force mobility systems
	Network billing systems
	Customer Information Systems
	Outage management systems
Shared between ACS and SCS	B2B systems for managing AMI- related transactions with other market participants
	GIS
	Asset management systems
	Performance and reporting regulatory systems
	Middleware / integration bus technology
	Data analysis systems
	New / upgraded IT infrastructure to support the additional AMI functionality

Source: EMCa, A*dvice on allocation of advanced metering infrastructure (AMI) IT and communications expenditure*, 6 April 2016, p. iii.

On the basis of the advice provided by EMCa, our final decision for 2016–20 set out that 64 per cent of AusNet Services' AMI IT communication opex be allocated to metering ACS and 36 per cent to SCS, while 100 per cent of its AMI IT communication capex was allocated to ACS.[87]

AusNet Services' proposal

AusNet Services' proposal maintains the status quo for systems which are currently shared in this regulatory control period (as per EMCa's 2015 advice), and reallocates some systems that were previously deemed by EMCa as allocated solely to metering ACS. AusNet Services submitted that it is now utilising AMI Network Head End Solution (WiMAX and Mesh) and Meter Data Management System (MDMS) – EnergyIP to carry out several distribution functions, including network planning, call centre operations, and outage management. In addition, AusNet Services submitted it

[87] AER, *Final Decision AusNet Services distribution determination 2016 to 2020, Attachment 16*, May 2016, p.18

also now collects additional (non-metering) power quality data from meters, which is solely utilised to provide SCS.[88]

Table 16.16 sets out AusNet Services' current allocation of AMI IT and communication costs for the 2016−20 regulatory control period and its proposed allocation for the 2021–26 regulatory control period.

Table 16.16 AusNet Services allocation of AMI IT and Communications expenditure

System	Current allocation	Proposed allocation
CAPEX		
CNMS Lifecycle Management for reporting and (monitoring)	100% ACS	50%:50% ACS:SCS
UIQ	100% SCS	100% SCS
3G phase out	50%:50% ACS:SCS	50%:50% ACS:SCS
Wimax network asset maintenance	50%:50% ACS:SCS	50%:50% ACS:SCS
Mesh network asset maintenance	100% ACS	50%:50% ACS:SCS
PolicyNet (mesh lifecycle management)	100% SCS	100% SCS
OPEX		
Mesh (UIQ) and WiMax (Policy Net)	100% ACS	50%:50% ACS:SCS
EnergyIP (EIP)	100% ACS:SCS	50%:50% ACS:SCS
CIS	100% SCS	100% SCS
Reporting and Monitoring GD	50%:50% ACS:SCS	50%:50% ACS:SCS
Telstra Backhaul	100% ACS	50%:50% ACS:SCS
DMACS	50%:50% ACS:SCS	50%:50% ACS:SCS
IBM	95%:5% ACS:SCS	95%:5% ACS:SCS

Source: AER analysis and AusNet Services, *Electricity Distribution Price Review 2021–25 Appendix 9D*, January 2020, pp.4–6.

Considerations

Implications for consumers and competitive landscape

A preliminary question in our assessment of this issue is the extent to which the proposed cost allocation warrants further analysis.

[88] AusNet Services, *Electricity distribution price review 2022–26 Regulatory Proposal Part IV*, January 2020, p. 14

From one perspective, it can be argued that the immediate materiality of this issue for Victoria is small. The very high penetration of AMI across households and small businesses means that the customer grouping for type 5 and 6 (incl. smart metering) services is almost equivalent to the customers of SCS. We would therefore expect the allocation of costs between categories to result in little difference in the ultimate price outcomes for consumers.

Conversely, the appropriate allocation of costs can be seen as an important cornerstone in supporting not only the appropriate recovery of costs from relevant customers, but also enabling efficient pricing signals to be sent regarding the costs of providing a given service. While the Victorian Government has decided not to introduce contestability at this time,[89] a key question is whether the proposed cost allocations preserve pricing structures that would be appropriate if the Victorian Government were to decide to introduce contestability to type 5 and 6 (incl. smart metering) services.

We are mindful that any allocation that shifts a significant portion of costs out of alternative control metering services to SCS, as proposed by AusNet Services, could act as a barrier for any eventual move to metering contestability in Victoria.

In its submission, Vector has echoed this viewpoint:[90]

> In a competitive market, the price of metering is not bundled with the price of natural monopoly distribution services. Specific charges apply to metering services instead of 'common' network charges, more accurately reflecting the value of the service to customers. A competitive metering market therefore promotes pricing transparency, particularly for retailers and metering service providers, and reduces the risk of cross-subsidies from natural monopoly services.

Accordingly we consider it is important to identify an appropriate causal driver to assess the reallocation of costs between type 5 and 6 (incl. smart metering) services and SCS. This approach is also consistent with AusNet Services' cost allocation methodology[91] and our *Cost allocation methodology guideline*.[92]

Greater use of AMI infrastructure for SCS

We accept that AMI data is now used for broader purposes of network management and operation of the shared distribution network, including better understanding the effect of energy exported from rooftop solar on the low voltage network. We therefore accept that it is not unreasonable that a proportion of IT and communication costs that

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89 Department of Environment, Land, Water and Planning, *Victorian Government submission on the electricity distribution price review 2021–26*, June 2020, pp. 4-5.

90 Vector, *Submission on the AER's Issues Paper on Victorian Electricity Distribution Determination for 2021 to 2026*, June 2020.

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

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

were previously allocated solely to metering ACS could be appropriately shared across SCS and metering ACS.

DELWP and ECA have noted their support for additional network benefits being realised from AMI meters.[93] In addition, the AusNet Services Customer Forum agreed metering systems are increasingly being used to provide SCS and, as such, allocating a greater proportion of costs to SCS is consistent with the use of these systems.[94] The CCP17 was also supportive of the trend that metering expenses be reallocated to standard control services in instances where the functions support the improvement of network operations and broader customer service improvements.[95]

Cost allocation principles

Section 2.2.4 of our *Cost allocation methodology guideline* states:

- In accordance with the requirements of clause 6.15.2(3)(ii) [of the NER], shared costs incurred in providing several categories of distribution services must be allocated between those categories using an appropriate causal allocator, except to the extent that:
    - The shared costs are immaterial; or
    - A causal relationship cannot be established without undue cost and effort.[96]

On the basis of the proposed reallocation put forward by AusNet Services we consider that the costs involved are not immaterial. Further, at least for some cost categories, there is no evidence that a causal relationship cannot be established without undue cost and effort. Accordingly we consider the allocation of these costs should be done on a causal basis where feasible.

Causal driver for cost allocation

In response to an information request, AusNet Services submitted that its proposed reallocation is driven by meter data volumes (with the data volumes being 15 per cent to ACS and 85 per cent to SCS). Rather than use this 15:85 ACS:SCS split at the basis for allocating costs, AusNet Services applied an *ex post* adjustment, to reflect the size of all the data collected from its AMI systems and data system availability requirements.[97] Based on this methodology, AusNet Services proposed a 50:50

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93 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 advisory services, *Report to Energy Consumers Australia - A review of Victorian Distribution Networks Regulatory Proposals 2021–26*, June 2020, p. 37.

94 AusNet Services Customer Forum, *AusNet Services 2021–25 Electricity Distribution Price Review Customer Forum Final Engagement Report*, January 2020, p. 47.

95 AER Consumer Challenge Panel - Sub-Panel CCP17, *Advice to the AER on the Victorian Electricity Distributors' Regulatory Proposals for the Regulatory Determination 2021─26*.

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

97 AusNet Services, *Information Request 52 - response to Q6*, 24 July 2020.

shared allocation between ACS and SCS for certain systems (see Table 16.17 and Table 16.18).

Table 16.17 AusNet Services' proposed allocation of AMI IT and Comms capex

System	Current allocation	Proposed allocation
CNMS Lifecycle Management for reporting and (monitoring)	100% ACS	50%:50% ACS:SCS
Mesh network asset maintenance	100% ACS	50%:50% ACS:SCS

Source: AER analysis and AusNet Services, *Electricity Distribution Price Review 2021–25 Appendix 9D*, January 2020, pp.4–6.

Table 16.18 AusNet Services' proposed allocation of AMI IT and Comms opex

System	Current allocation	Proposed allocation
Mesh (UIQ) and WiMax (Policy Net)	100% ACS	50%:50% ACS:SCS
EnergyIP (EIP)	100% ACS:SCS	50%:50% ACS:SCS
Telstra Backhaul	100% ACS	50%:50% ACS:SCS

Source: AER analysis and AusNet Services, *Electricity Distribution Price Review 2021–25 Appendix 9D*, January 2020, pp.4–6.

We consider meter data volumes can be an appropriate causal driver to allocate costs for some categories. However, we are not convinced of two aspects of AusNet Services' proposed application of meter data volumes to derive its proposed 50:50 allocation. These are:

- AusNet Services' proposed underlying meter data requirements − in particular the quantity of power quality data proposed to manage and operate its network. These underlying meter data requirements drive the 15:85 ACS:SCS allocation prior to AusNet Services' *ex post* adjustment
- AusNet Services' *ex post* adjustment, which takes into consideration the size of all the data collected from its AMI systems and data system availability requirements. This adjustment changes the 15:85 ACS:SCS ratio to a 50:50 ratio.

For the reasons set out below, while we consider that meter data requirements can be an appropriate driver to allocate shared costs, we disagree with the calculation of this driver. Namely, we consider AusNet Services' proposed SCS meter data requirements are too high. We also consider that no case has been made for additional qualitative reasoning to be applied as an overlay where an appropriate causal driver has been identified.

Calculation of causal driver for cost allocation

We understand that AusNet Services' causal driver (which drives the initial 15:85 ACS:SCS split) assumes that AusNet Services requires power quality data every 5 minutes from 85 per cent of its meters and 30 alarms per day from each AMI meter.[98] AusNet Services provided no information on the nature of these alarms, their relevance or importance to managing power quality. Our technical experts are of the view that this volume of alarms is excessive, and that it is unlikely that the vast majority of this alarm data would be of any value in managing network power quality. Accordingly, our technical experts took the view that it was more likely (as an upper limit) that only one alarm from 10 per cent of the meter population per day would be relevant and meaningful to the management of power quality. The one alarm and 10 per cent figures are professional engineering judgement based on the experience of our technical experts.

We accept that, in areas where there is a high penetration of distributed energy resources (DER) exporting into the network, networks may want to capture power quality data from a small number of sites per low voltage feeder as this can (or have the potential to) cause high and low voltage problems. However, we consider that this would only represent a very small proportion of sites in those parts of the network. For other parts of the network we expect the proportion of sites that it would be useful to capture power quality data from is even lower. More specifically, we consider it sufficient to collect power quality data from approximately one per cent of AMI meters.

In arriving at the one per cent figure we have been guided by the knowledge and experience of our technical experts. For example, we have recently accepted SA Power Networks' proposed low voltage monitoring to address PV related power quality issues. This proposal involved implementing limited monitoring in targeted locations to sample the low voltage (LV) network, primarily through procurement of 'data as a service' from smart meter providers and other third parties.[99] We have determined that monitoring approximately one per cent of connection points should be sufficient to deliver the outcomes suggested by AusNet Services.

Collecting power quality data from one per cent of meters instead of 85 per cent of meters and meter alarm data from ten per cent of meters instead of from every meter results in an allocation based on meter data volumes of 94:6 ACS:SCS.

We have substituted this revised cost allocation only where we consider that the data provided can be used as a reasonable cost allocator. Where it cannot, and a cost allocator has not been provided, we have accepted the allocation proposed. Further, where AusNet Services has not proposed a reallocation of costs for a particular initiative and program of work we have retained these allocations.

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[98] AusNet Services, *Response to Information Request 52* - Q6, 24 July 2020, pp.6-7. Power quality data and meter alarm data is used for SCS purposes, as opposed to metering consumption data used for metering ACS.

[99] SA Power Networks, *2020–25 Regulatory Proposal, Supporting document 5.18 LV Management Business Case*, January 2019.

Our draft decision on allocation of each system is set out in Table 16.19.

Table 16.19 AER draft decision on cost allocation

System	Current allocation	Draft decision allocation
CAPEX		
CNMS Lifecycle Management for reporting and (monitoring)	100% ACS	94%:6% ACS:SCS
UIQ	100% SCS	100% SCS
3G phase out	50%:50% ACS:SCS	50%:50% ACS:SCS
Wimax network asset maintenance	50%:50% ACS:SCS	50%:50% ACS:SCS
Mesh network asset maintenance	100% ACS	94%:6% ACS:SCS
PolicyNet (mesh lifecycle management)	100% SCS	100% SCS
OPEX		
Mesh (UIQ) and WiMax (Policy Net)	100% ACS	94%:6% ACS:SCS
EnergyIP (EIP)100	100% ACS	50%:50% ACS:SCS
CIS	100% SCS	100% SCS
Reporting and Monitoring GD	50%:50% ACS:SCS	50%:50% ACS:SCS
Telstra Backhaul	100% ACS	94%:6% ACS:SCS
DMACS	50%:50% ACS:SCS	50%:50% ACS:SCS
IBM	95%:5% ACS:SCS	95%:5% ACS:SCS

Sources: Source: AER analysis and AusNet Services, *Electricity Distribution Price Review 2021–25 Appendix 9D*, January 2020, pp.4–6.

Using our draft decision on cost allocations results in a reallocation of $2.12 million ($2020–21) of forecast capex from ACS to SCS as opposed to AusNet Services' allocation of $17.59 million ($2020–21). It also results in a reallocation of $8.07 million ($2020–21) of forecast opex from ACS to SCS as opposed to AusNet Services' allocation of $29.8 million ($2020–21) from ACS to SCS.

We encourage AusNet Services in its revised proposal to provide more details on the volumes of data it is seeking to collect in regards to power quality management, to describe how it will use that data (the objectives), and to provide details on how it has determined the extent of data required to achieve the objectives stated.

[100] We are not convinced that meter data volumes are an appropriate causal driver for EnergyIP and, in this case, accepted AusNet Services' proposed 50:50 allocation.

Revenue

Capital Expenditure

Our draft decision allows for $82.45 million ($2020–21) in forecast capex for AusNet Services' 2021–26 regulatory control period, as opposed to $65.05 million ($2020–21) proposed by AusNet Services (see Table 16.20).

Table 16.20 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

Source: AER, Draft decision AusNet - distribution determination 2021–26 - Metering PTRM, September 2020; AusNet Services, Electricity distribution price review 2022–26 - Supporting document - ASD - Metering PTRM - FY22-26, January 2020.

The forecast capex consists of:

- IT $5.49 million ($2020–21)
- Communications $35.61 million ($2020–21)
- Metering capex (remotely read interval meters and transformers) $40.50 million ($2020–21)
- Leases capitalised $0.23 million ($2020–21)
- Equity raising costs $0.62 million ($2020–21).

The key driver of the higher forecast capex is our decision not to accept AusNet Services' proposal to re-allocate 50 per cent of mesh lifecycle capex and ICT CNMS lifecycle capex from metering ACS to SCS.

AMI IT and communication costs

Our draft decision allows for forecast IT capex of $5.49 million ($2020–21) and communication capex of $35.6 million ($2020–21). This is higher than AusNet Services' proposed IT capex of $2.91 million ($2020–21) and communications capex of $20.31 million ($2020–21). The key driver of this of the increase in IT and communications capex is our decision on cost allocation as discussed above.

We accept AusNet Services' proposed capex for WiMax strategy and metering 3G to 4G/5G upgrade, except for an adjustment to reflect our draft decision labour escalators as set out in Attachment 6 - Operating expenditure. AusNet Services' proposed 3G to 4G/5G upgrade capex was extensively negotiated with the Customer Forum and after

final negotiations it was agreed the transition costs to Telstra's 4G systems were justified.[101]

Metering capex (remotely read interval meters and transformers)

Our draft decision allows for $40.50 million ($2020–21) in forecast metering capex related to remotely read interval meters as opposed to $41.11 million ($2020–21) proposed by AusNet Services. This includes meter hardware (meter and communications modules) and installation for new connections and replacements. We accept the unit hardware costs, installation costs and forecast meter volumes. However, we do not accept the labour escalation rates. The downward adjustment to IT capex is driven by our decision on labour cost escalation (see attachment 6).

As AusNet Services has claimed confidentiality over unit costs, we can only provide a high-level summary of our analysis.

Meter hardware unit costs

Our draft decision accepts AusNet Services' proposed meter hardware unit costs. AusNet Services' meter hardware unit costs benchmarked well against proposed hardware unit costs by the other Victorian distributors.

Meter installation unit costs

While we are not able to specifically benchmark meter installation times as Marsden Jacob did not assess installation rates for new connections, AusNet Services' proposed meter installation costs compare well to the connection charges we have accepted in this draft decision (see Appendix A) and against the other Victorian distributors' installation costs. Accordingly, our draft decision accepts AusNet Services' proposed meter installation unit costs.

Meter volumes (hardware and installation)

For our draft decision, we accept AusNet Services' metering volume forecasts. We may revisit forecast metering volumes in the final decision if more information becomes available.

Capitalised leases

AusNet Services submitted that, from 1 April 2019, the start of AusNet Services' financial reporting year, the full amount of a lease, where AusNet Services is the lessee, must be capitalised up-front when it is first entered into, or renewed, and amortised over its lease term.[102]

AusNet Services proposed to treat all existing leasing arrangements as capital expenditure from 1 April 2019. We have accepted this treatment.

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[101] AusNet Services, *Customer Forum Final Engagement Report*, January 2020, p.44.

[102] AusNet Services, *Appendix 9E Lease Accounting Treatment*, January 2020, p.2.

Forecast opex

Our draft decision allows for $78.08 million ($2020–21) in forecast opex for AusNet Services' 2021–26 regulatory control period. This is higher than AusNet Services' proposed opex of $56.86 million ($2020–21), driven by our decision on cost allocation as set out above.

Table 16.21 provides the draft decision forecast operating expenditure for the 2021–26 regulatory control period.

Table 16.21 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

Source: AER, Draft decision AusNet - distribution determination 2021–26 - Metering PTRM, September 2020; AusNet Services, Electricity distribution price review 2022–26 - Supporting document - ASD - Metering PTRM - FY22-26, January 2020.

We considered AusNet Services' proposed metering opex by developing our own alternative forecast. To do this we used a top-down 'base–step–trend' approach. In particular, we:

- used the "revealed costs" approach as the starting point
- adjusted for any step changes if we were satisfied that a prudent and efficient service provider would require them
- trended forward the base opex (plus any step changes) by considering the forecast changes in output, price and productivity.

Each of these components to our assessment is discussed in more detail below.

Using the revealed costs approach, we take AusNet Services' actual metering opex in 2018 of $17.71 million ($2020–21) as our starting point. AusNet Services noted that this was the most recent regulatory year with audited regulatory accounts. We consider revealed opex in the base year is generally a good indicator of opex requirements over the next regulatory control period because the level of total opex is relatively stable from year to year. This reflects the broadly predictable and recurrent nature of opex.

Next we considered step changes to the base opex. These are adjustments which increase or decrease a distributor's efficient expenditure. Our starting position is that only circumstances that would change a distributor's fundamental opex requirements warrant the inclusion of a step change in the opex forecast.[103] Two typical examples are:

[103] AER, *Expenditure forecast assessment guideline for electricity distribution*, November 2013, p. 24.

- a material change in the business's regulatory obligations
- a prudent and efficient capex/opex substitution opportunity.[104]

AusNet Services proposed three step changes to its base opex. These include:

- 5-minute settlement of $2.41 million ($2020–21)
- Metering reallocation to SCS of –$29.80 million ($2020–21)
- Service classification and capitalisation adjustment of –$5.64 million ($2020–21).

Five-minute settlement

AusNet Services proposed a step change of $2.41 million ($2020–21) in response to the AEMC's five-minute settlement rule. This rule, published on 28 November 2017, will change the settlement period for the electricity wholesale market from 30 minutes to five minutes to align with the operational dispatch of electricity.[105]

On 9 July 2020, the AEMC made a ruling to delay the commencement of the five-minute settlement rule by three months, such that it will commence on 1 October 2021. The AEMC considered that a three-month delay balances the capacity constraints placed on the industry by COVID-19 against the additional costs and deferred benefits that are caused by a delay to the commencement of the respective rules.[106]

We have reviewed the AEMC ruling on the delay to the commencement of five-minute settlement and consider it should not have a material impact on AusNet Services' proposed step change as the delay only postpones implementation by three months at the start of the regulatory control period.

We are satisfied that the AEMC ruling should be considered a new regulatory obligation and the efficient costs to meet these obligations included as a step change. We view these proposed costs as reasonable but have adopted the latest inflation forecasts,[107] which results in an alternative estimate of $2.39 million ($2020–21).

Service classification and capitalisation adjustment

As discussed above, AusNet Services proposed to treat all existing leasing arrangements as capital expenditure from 1 April 2019. We have accepted this treatment, which will lead to an increase in capital expenditure.

We have included this downward (opex) base adjustment as we consider it is a compliance-driven obligation, is consistent with the Cost Allocation Methodology and has neutral impact given there is a corresponding increase in capex.

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104 NER, cl. 6.5.6(e)(7).

105 AEMC, *Five Minute Settlement, final determination*, November 2017.

106 AEMC, *Delayed Implementation of five minute and Global settlement, Rule determination,* July 2020.

107 Reserve Bank of Australia, Statement of Monetary Policy, August 2020.

Metering reallocation to SCS

We do not accept AusNet Services' proposed step change for metering re-allocation to SCS. Consistent with our decision on cost allocation we have calculated a step change for metering reallocation of –$8.07 million ($2020–21).

We trended forward base opex (plus any step changes) using labour cost escalators as per our decision in attachment 6.

Once adjusted for our decision on step changes and trended forwarded, we calculated an alternative metering opex of $78.08 million ($2020–21) for the 2021–26 regulatory control period.

Depreciation

We accept AusNet Services' proposed standard asset life of:

- 15 years for remotely read interval meters and transformers
- 7 years for IT, communications, and other metering related assets.

Our draft decision is to accept the proposed asset lives because, in each instance, they reflect the likely technical life of the assets. We consider this to arrive at an efficient outcome whereby the economic and technical lives of the assets are likely to coincide.

We also accept AusNet Services' proposed standard asset life of 5 years for capitalised leases for the 2021–26 regulatory control period.

Opening metering asset base

We do not accept AusNet Services' proposed opening metering asset base value. Our draft decision accepts a metering asset base value as at 1 July 2021 of $208.38 million ($ nominal). This is lower than AusNet Services' proposed opening metering asset base of $231.43 million ($ nominal).

In 2006, the Victorian Government mandated the roll–out of AMI for all customers consuming less than 160 MWh per annum. This involved the replacement of manually read meters with 'smart meter' technology that allows for the remote communication of a customer's half–hourly consumption data to an electricity distributor. The regulatory arrangements relating to the AMI roll–out in Victoria were initially set out in an August 2007 Order made under the Electricity Industry Act 2000 (Vic).

Under this Order, the recovery of costs incurred in relation to the AMI roll-out involved the following three processes:

- Setting AMI budgets at the beginning of the period
- Making determinations on revised charges that update for actual expenditure
- The approval of a transition charge that corrects for the difference between costs and revenues over the entirety of the 2009–15 period and which includes an assessment of any excess expenditure for the last two years of the roll-out, 2014 and 2015.

In our 2016–20 final decision we calculated an opening metering asset base value for each of the Victorian distributors based on actual capex from 2011–2013. However, we used forecast capex for 2014 and 2015, being the information available at the time.

In December 2016 we made a final decision on advanced metering infrastructure – transition charges applications. This represented the final step to transition the metering services previously managed under the Victorian Government's AMI Cost Recovery Order in Council (Order) into the AER's ACS Metering service classification. This decision corrected for the difference between costs and revenues over the 2011–2015 regulatory control period and updated the forecast 2014 and 2015 capex values (used to make our 2016–20 determination) with actual values. This decision had the effect of increasing or decreasing the revenue that could be recovered by the distributors from their customers. It also acted as an adjustment to our 2016–20 distribution determinations on the distributors' revenues for the metering (AMI) services for the 2016–2020 regulatory control period. In AusNet Services' case the adjustment was spread over three years (2018, 2019 and 2020).

AusNet Services' proposed metering asset base as at 1 July 2021 is calculated based on rolling forward the 2016 metering asset base consistent with our 2016–20 final decision, made in May 2016.

However, we consider the opening metering asset base from our December 2016 AMI transition charges application decision − which was made in December 2016 − to be the most recent decision.

We consider the 2016 opening metering asset base in the 2016–20 RFM should be consistent with our final decision on transition charges applications as it represents the most updated AMI decision and incorporates the 2015 actual capex into the 2016 opening asset base.

For this draft decision we have therefore adopted the revised opening metering asset base values for 2016 as per our December 2016 AMI transition charges application decision. This results in our draft decision metering opening asset base of $208.38 million ($ nominal).

Other stakeholder feedback

Table 16.22 contains a summary of additional stakeholder commentary in relation to type 5 and 6 (incl. smart metering) services, along with AER responses.

Table 16.22 Summary of additional stakeholder commentary and AER responses

Stakeholder submission	AER Response
Energy Consumers Australia (ECA)	
It is positive that the cost of metering for consumers in all networks will fall significantly in the 2021–26 period.	With the exception of AusNet Services, our draft decision allows for revenues lower than those proposed by each of the distributors. For these distributors this decision will therefore be expected

	to result in lower metering charges than those proposed for each distributor. Our draft decision for AusNet Services allows for a revenue requirement that is 1.4 per cent higher than proposed. As discussed in section 16.3.4, this reflects our decision to reject AusNet Services' proposal to reallocate 50 per cent of its AMI-related IT and communications costs out of metering ACS to SCS. We also reiterate that our decision sets revenues for type 5 and 6 (inc. smart metering) services; it does not set specific charges. This occurs as part of the annual pricing process. Charges for a given year may be affected by adjustments to revenue provided for as part of this pricing process, and the structure of charges proposed by the distributor to recover these revenues.
We are slightly concerned about the absence of planning for metering replacement in the future. When questioned, all networks responded saying that wide spread replacement of meters would not be required for another 10 years (circa 2030). We are satisfied that a 10 year timeframe provides sufficient time to develop a replacement strategy.	We note the ECA's comments, and suggest the distributors give consideration to this during the 2021−26 regulatory control period.
AusNet explicitly refers to the costs of upgrading its meter fleet from 3G to 4G in its metering revenue proposal. The other networks who face the same issue only refer to the 3G upgrade in their costs for distribution business. Given that all networks have allocated meter costs to the distributor, it is important that all networks attribute the telecommunication upgrade in a manner consistent with their cost allocation methodologies. This will ensure that metering costs between networks remain more comparable.	AusNet Services proposed a 50:50 shared allocation of 3G upgrade capex between metering ACS and SCS, which we have accepted in our draft decision. Jemena proposed to allocate 100 per cent of the capex for the upgrade of the 3G elements of its AMI communications network to ACS, which we have accepted in our draft decision.[108] CitiPower, Powercor and United Energy allocated 100 per cent of their 3G upgrade capex to SCS.[109] As set out in our draft decisions for CitiPower, Powercor and United Energy, our decision is to allocate some of CitiPower's, Powercor's and United Energy's 3G capex to metering alternative control services

[108] Jemena, *Information Request 45 – Q1*, 17 July 2020, p.iv.

[109] CitiPower, *2021–26 Regulatory Proposal - Supporting document - CP MOD 6.03 - AMI comms - PUBLIC*, January 2020; Powercor, *2021–26 Regulatory Proposal - Supporting document - PAL MOD 6.03 - AMI comms - PUBLIC,* January 2020; United Energy, *2021–26 Regulatory Proposal - Supporting document - UE MOD 6.03 - AMI comms - PUBLIC*, January 2020.

	In arriving at our draft decisions we have had regard to the allocations and any supporting justifications provided by each distributor, with consideration given to each distributor's cost allocation methodology where required. While the allocations may differ between distributors, our approach has focussed on satisfying ourselves that any allocations away from ACS are in accordance with the distributor's cost allocation methodology.
United Energy is unusual in its metering cost outcomes. It is unclear why United is able to provide the same service for considerably less cost than its peers. We note the allocation of metering data cost between the distributor and the metering business is the same as Citipower and Powercor (88%:12%). We would welcome more information on this matter to understand whether other companies can also provide services for this lower price.	We agree that it is important to consider the efficiency with which distributors can offer similar services. Our assessment approach includes an assessment of the inputs proposed by the various distributors. We note that this does not always result in the selection of a single rate - for example, for labour rates (as discussed in detail in Section 16.1) we may accept a range of labour rates provided they fall below the maximum efficient labour rates identified by our consultant. In benchmarking the cost inputs and performance of different distributors, we also take into consideration factors such as the concentration or dispersion of customers on the distributor's network (which may affect service times). Our assessment has resulted in lower revenues for each distributor than those proposed - with the exception of AusNet Services, where the driver of the increase in revenues is our rejection of the proposed reallocation of costs from ACS to SCS. More detail on our assessments (including benchmarking of inputs) of type 5 and 6 (incl. smart metering) revenues for each distributor is set out in the draft decision documents for each distributor.
Vector	
The Final Framework & Approach Paper for electricity distributors in Victoria for the 2021–2026 regulatory control period (dated January 2019), which informed the Issues Paper, noted the	We note Vector's recommendation. However, we also note that the Victorian government has decided not to introduce metering contestability in Victoria at this stage.[110]

[110] Department of Environment, Land, Water and Planning, *Victorian Government Submission on the electricity Distribution Price Review*, June 2020, p.4.

Consumer Challenge Panel's suggestion that analysis be undertaken to determine whether net benefits arise from harmonising Victorian metering arrangements with the rest of the NEM (page 111). While recognising that this is a matter of jurisdictional prerogative (as noted by the AER), we strongly share the Panel's perspective and encourage the Victorian Government and the relevant regulators to actively consider this suggestion so it can inform this ongoing distribution determination process and related decision-making processes.	
We would find it useful if the Draft Determination the AER will issue following this consultation would provide some guidance for stakeholders on potential changes to the regulatory framework for metering in Victoria that could be triggered by the above reviews/consultations. The Draft Determination could, for example, outline the initial steps the AER will undertake should the Victorian Government or any future state government decide to facilitate the introduction of competition in metering in the state.	As noted in our response above, the Victorian government has decided not to introduce metering contestability in Victoria at this stage. It considers the primary value of AMI has been as a network device and substantial operational and safety benefits have been realised to date. In its review the Victorian government found that introducing contestability at this time may not unlock unrealised benefits to consumers and may potentially diminish some of the current benefits that have been realised.[111] Our draft decision recognises that AMI meters can have wider network benefits and that some IT and communication costs could be shared between ACS and SCS. In making our decision we have been mindful to seek an appropriate allocator to ensure prices reflect underlying costs, should there be a move to contestability in the future. In regards to the steps the AER would undertake should there be a future decision to introduce metering contestability in Victoria, it is difficult to provide guidance in the absence of a specific proposal to introduce contestability. Interested stakeholders may wish to review the approach the AER took in other jurisdictions where metering contestability has already been introduced.

Sources: Department of Environment, Land, Water and Planning, *Victorian Government Submission on the electricity Distribution Price Review*, June 2020; Spencer & Co Business advisory services, *Report to Energy Consumers Australia, A review of Victorian Distribution Networks Regulatory Proposals 2021–26*, June 2020, p.37; Vector, *Submission on the AER's Issues Paper on Victorian Electricity Distribution Determination for 2021 to 2026*.

[111] Department of Environment, Land, Water and Planning, *Victorian Government Submission on the electricity Distribution Price Review*, June 2020, p.4.

16.2.4.2 Metering exit fees

Form of control

We maintain our final F&A position to apply price caps to auxiliary metering services (such as metering exit fees) as the form of control.[112] This allows AusNet Services to charge according to a schedule of prices, approved by the AER, in the first year of the regulatory control period, with these prices being escalated by actual CPI and an X-factor for subsequent years.

The control mechanism formula is set out in Attachment 14 of this draft decision. The prices for the first year, and X-factors for subsequent years, are set out in Appendix B of this attachment.

Calculation of fees

Our draft decision is to reject AusNet Services' proposed exit fees. Our draft decision exit fees have been revised to reflect the revisions we made for this draft decision to the following inputs used to calculate exit fees:

- AusNet Services' opening metering asset base value as of 1 July 2021 (as per our draft decision as discussed in section 16.2.4.1)
- the forecast metering capex and opex (as per our draft decision discussed in section 16.2.4.1)
- real labour cost escalators (as per our draft decision discussed in attachment 6 section 6.4.4).

As a result of these changes, our draft decision metering exit fees are lower than those proposed by AusNet Services. Table 16.31 in Appendix B sets out our draft decision on metering exit fees.

16.3 Public lighting services

16.3.1 Draft decision

For public lighting, our draft decision is to amend AusNet Services' proposed input cost assumptions in relation to operations and maintenance expenditure and light-emitting diode (LED) luminaire costs.

Additionally we have updated the WACC, CPI and wage growth assumptions, and made minor corrections to the proposed public lighting model.

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[112] AER, *Final Framework and Approach – AusNet Services, Jemena, CitiPower, Powercor and United Energy Regulatory control period commencing 1 January 2021*, Section 2.1, p 54.

Our draft decision prices for the first year of the regulatory control period are set out in Appendix C. Prices for subsequent years of the regulatory control period will be escalated by CPI growth and X-factors. A summary of the X-factors is provided in Appendix C; further explanation is provided in section 16.3.4.

16.3.2 AusNet Services' proposal

For public lighting services, AusNet Services proposed:[113]

- Continuing to deploy more energy-efficient lights across its network. AusNet Services has proposed to increase its LED deployment from 49 per cent to 61 per cent in the 2021–26 regulatory control period, including major and minor roads.[114] This includes the bulk replacement of 29 000 predominantly mercury vapour lights with LEDs and spot replacement of other failed lights with LED lights across its network.[115]
- A change to its modelling approach for public lighting to make it more consistent with the approach for standard control services.[116]
- Public lighting revenues that, in total, increase by 45 per cent in real terms for the 2021–26 regulatory period when compared to the current regulatory control period.[117]
- Price increases (in the range of 7−66 per cent for AusNet Central and 3−76 percent for AusNet North & East regions) for LED lights in the first year of the regulatory control period, but less significant price increases for non-LED lights (in the range of 3.3−3.6 per cent for both AusNet Central and AusNet North & East regions).

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.

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113 AusNet Services, *ASD - EDPR 2022–26 Regulatory Proposal Part IV 310120 PUBLIC*, 31 January 2020, pp. 29-46.

114 AusNet Services, *2021–26 Regulatory proposal – AER Public lighting Model*, 3rd March 2020, "DNSP Inputs General" Tab, Q45:U124.

115 AusNet Services, *ASD - EDPR 2022–26 Regulatory Proposal Part IV 310120 PUBLIC*, 31 January 2020, p. 39.

116 AusNet Services, *ASD - EDPR 2022–26 Regulatory Proposal Part IV 310120 PUBLIC*, 31 January 2020, p. 29.

117 AusNet Services, *2021–26 Regulatory proposal – AER Public lighting Model,* 3 March 2020, "Cashflow Summary" tab. For the current regulatory control period, figures include actuals taken from the Economic Benchmarking RINs for 2016─2019.

16.3.4 Reasons for draft decision

Form of control

We maintain our final F&A position to apply price caps to individual public lighting services as the form of control.[118] This allows AusNet Services to charge according to a schedule of prices, approved by the AER, in the first year of the regulatory control period, with these prices being escalated by CPI and an X-factor for subsequent years.

The control mechanism formula is set out in attachment 14 of this draft decision. The control mechanism is implemented through a public lighting model. Compliance with the control mechanism is to be demonstrated through the annual pricing proposal by updating the forecast CPI for actual CPI each year. This approach is consistent with the arrangements for AusNet Services in the currently regulatory control period, and with other Victorian distributors.

A summary of our draft decision X-factors is provided in Appendix C. For full details, see our draft decision public lighting model for AusNet Services.

Modelling

AusNet Services proposed to change its modelling approach for public lighting to make it more consistent with the approach for standard control services.[119] We do not consider the proposed modelling approach to be preferable for public lighting. We have revised the proposed model back to the historical cost approach model used previously, and AusNet Services have accepted this approach.[120] This maintains consistency with previous regulatory control periods, and with the approach used by other Victorian distributors.

For the draft decision we have amended the public lighting model to incorporate updated CPI growth, WACC and wage growth figures, consistent with those used for standard control services.

For a discussion of the WACC used in our draft decision see Attachment 3 − Rate of return. Our draft decision substitutes the wage growth forecasts provided by AusNet Services with those provided by the AER's consultant. For a discussion of the reasons behind this decision see Attachment 6 − Operating expenditure.

We also reviewed the models provided by AusNet Services and made a number of adjustments, including:

- addressing inconsistencies between the operations and maintenance data used in the models with annual RIN data. This annual RIN data is submitted after the

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118 AER, *Final Framework and Approach – AusNet Services, CitiPower, Jemena, Powercor and United Energy Regulatory control period commencing 1 January 2021*, Section 2.1, p 54.

119 AusNet Services, *Response to Information request 58*, Q1, 12 August 2020, p. 1.

120 ibid.

regulatory proposals and is provided on a standardised basis and subject to various levels of assurance. We therefore generally give preference to data from the annual RINs where available

- correcting an error in the failure rate calculation for LEDs[121]
- replacing the 2020 prices for four LED lights used in the model based on the approved AusNet Public lighting Charges 2020 schedule available on its website.[122]

LED luminaire unit costs

The increasing use of LED lighting reflects the efficiencies offered relative to older-style lighting. LED lights are both typically more energy efficient and have lower maintenance costs than their earlier counterparts. These twin efficiencies create benefits for savings for customers that tend to offset the typically higher cost of the LED luminaire.

The discussion of stakeholder submissions below sets out feedback supporting a transition to LED lighting where it is efficient to do so.

Given the increasing use of LED luminaires in public lighting networks, we have paid close attention to the unit costs of the LED luminaires and the resulting LED public lighting charges. We benchmarked the unit cost of LED luminaires proposed by AusNet Services against those for other distributors (as shown in their proposals or as updates via information requests).

AusNet Services' LED luminaire unit costs were found to be higher than those available from other Victorian distributors. In particular, we found the unit cost of Category P LED luminaires for Citipower, Powercor and United Energy to be lower.[123] We also found that updated information from Jemena indicated that lower unit costs could be obtained for Category V L1 and L2 LED luminaires, and we found the unit cost of Category V L4 luminaires for Powercor to be lower (see Attachment 16 of the relevant distributors' draft decision documents for further details).[124] For our draft decision, we have amended AusNet Services' LED luminaire unit costs to reflect these benchmarked rates, as shown in Table 16.23.

We consider it is important that we benchmark against the lowest available LED luminaire unit costs. This reflects the expectations for increasing use of LED lights (and therefore that these will reflect a greater proportion of additions to the regulatory asset base) and our observation that LED luminaire unit costs have tended to decrease since the initial introduction of this technology in the public lighting sector. In setting prices for

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121 AusNet Services, Response to Information request 58, Q3, 12 August 2020, p. 3.

122 Available on AusNet Services' website – see "Charges and Revenues, Electricity Schedules - Public lighting Charges (for Council use only)".

123 Category P lights are typically installed on minor roads and streets.

124 Category V lights are typically installed on highways and major roads.

a 5-year period, we therefore consider it is important that our decision reflect the most competitive input costs available.

Category V lights

We acknowledge that AusNet Services has introduced Category V LED lights. We expect that the deployment of more energy-efficient LED technology on major roads will be associated with lower energy and maintenance costs.

Table 16.23: LED Luminaire unit costs

LED Category	Proposed	Draft Decision
Category P	$379.79	$205
Category V L1	$779.39	$402
Category V L2	$886.88	$427
Category V L4	$994.38	$650.88

Sources: AusNet Services, 2021–26 Regulatory proposal – Public lighting Model, 31 January 2020, "Inputs Capex" Tab; Powercor, PAL MOD 13.01 - Public Lighting, 31 January 2020, Jemena Information Request 56, Q4, 18 August 2020, p.8.

Stakeholder submissions

Victorian Department of Environment, Land, Water and Planning

DELWP submitted that the replacement of inefficient mercury vapour street lights is consistent with their commitment of reducing demand and energy costs for public lighting customers and end users. It further adds that it supports public lighting customers reducing their greenhouse gas emissions and energy costs through bulk LED replacement programs. DELWP considers that there is scope for the electricity distribution businesses to support competitive costs for these bulk upgrades.[125]

We acknowledge DELWP's support for the deployment of LED luminaires in and the many benefits they offer. Given the increasing uptake of LED offerings, we have paid particular attention to the LED offerings in our assessment of the Victorian distributors' proposals.

The Victorian distributors have proposed various approaches to the replacement of mercury vapour lighting. In addition to other efficiency benefits, this approach to replacement has been prompted by the Australian Government signing the "Minamata Convention on Mercury" in October 2013 which became effective in August 2017.

[125] Department of Environment, Land, Water and Planning (DELWP), *Victorian Government submission on the electricity distribution price review 2021–26*, 29 May 2020, p 5.

Under the convention import, export and manufacture of Mercury Vapour public lights will be banned from 1 January 2021.[126]

AusNet Services has proposed the bulk replacement of 29 000 mercury luminaires with LEDs. AusNet Services expects the deployment of LEDs to increase from 49 per cent to 61 per cent in the 2021–26 regulatory control period (including major and minor roads).[127]

While we agree there may be scope for the distributors to support competitive costs for bulk upgrades, we note that public lighting customers have not accepted AusNet Services' bulk replacement program (see below). Accordingly, we have not accepted this proposed program. We expect AusNet Services to work with public lighting customers to determine whether an alternative replacement program is supported, or whether customers should instead work through any proposed bulk replacements on a case-by-case basis.

Local Government Response

The Local Government Response (LGR), a group comprising Victorian greenhouse alliances, public lighting group and member councils, provided a detailed submission.[128] In relation to public lighting, the LGR made a number of recommendations. A summary of the relevant recommendations and our responses is contained in Table 16.24, with more detail on benchmarking set out below.

Table 16.24 Summary of LGR recommendations and AER responses

LGR recommendation	AER response
All distributors should replace current streetlights with LEDs when assets fail. This should be built into all relevant cost models for this coming period	As noted above, AusNet Services has proposed that any failed non-LED lights will be replaced by efficient lights. AusNet Services' model incorporates a projected increase in LED use throughout the next regulatory control period.
Customers should determine the approach to bulk replacements to LEDs The proposal by AusNet to fund the replacement of 29,000 LEDs should be rejected, and that AusNet works closely with customers collectively to deliver a DNSP	We consider that distributors should consult with public lighting customers in relation to proposed bulk replacement programs. The proposed bulk replacement program is addressed below.

126 Australian government, Department of Agriculture, Water and Environment website, *Minamata Convention on Mercury*, as accessed on 7th September 2020.

127 AusNet Services, *2021–26 Regulatory proposal – AER Public lighting Model*, 3rd March 2020, "DNSP Inputs General" Tab, Q45:U124.

128 Victorian Greenhouse Alliances, *Local Government Response to Victorian Electricity Distribution Price Review (EDPR) 2021–26*, 25 May 2020.

wide program that is defined and scoped by customers	
All old lights should be fully recycled	We note the LGR's position and encourage public lighting customers to discuss this issue with AusNet Services.
Distributors should be required to invest in a smart lighting Control Management System (CMS) to enable customers to effectively manage any smart lighting assets they install	We note the LGR's position and encourage public lighting customers to discuss this issue with AusNet Services.
The AER should request that a review of the Victorian Public Lighting Code be implemented by the Victorian Essential Services Commission (ESC) in time to influence (where relevant) the next Victorian EDPR	We note the extensive work done by the LGR and the survey results presented that indicate stakeholder support for a review of the Public Lighting Code. We encourage the LGR, public lighting customers and the Victorian distributors to discuss their preferences for a review of the Public Lighting Code with the Essential Services Commission of Victoria.
Ensure all costs models utilise efficient pricing and assumptions.	See discussion relevant to AusNet Services below.

Source: Victorian Greenhouse Alliances, Local Government Response to Victorian Electricity Distribution Price Review (EDPR) 2021–26, pp 11-23.

The LGR submission raised concerns about AusNet Services' proposed bulk replacement of 29 000 Mercury vapour lights with LED lights. In particular, the submission expressed a number of concerns about the consultation process, design and costing of the proposed program by AusNet Services.

We raised the LGR's concerns with AusNet Services. AusNet Services responded that they are open to resolving this issue and raised some possible alternatives in the design of the bulk replacement of the mercury vapour lights.[129] While we appreciate AusNet Services' consideration of possible alternatives, we consider that the best outcome is likely to be achieved by further open consultation with public lighting customers.

Accordingly, our draft decision does not accept the proposal by AusNet Services to fund the bulk replacement of 29 000 lights in its current form. For the draft decision we have removed volumes of LED lights from the public lighting model and assumed that these lights are not replaced.

We request that AusNet Services work closely with its public lighting customers to reach agreement on a program that is defined and scoped by Councils in relation to

[129] AusNet Services, *Response to Information request 58*, Q3(1), 12 August 2020, p. 3.

this bulk replacement. If AusNet Services and public lighting customers cannot come to agreement in relation to the bulk replacement of these lights, the respective customers may elect to replace these lights on a case-by-case basis, with each interested public lighting customer funding the rollout in their area.

The LGR submission also raised concerns about the efficiency of various inputs and assumptions used by distribution businesses in deriving public lighting charges. The LGR submission requested we consider benchmarking and/or standardising the following public lighting inputs:

- Labour rates
- Elevated platform and patrol vehicle rates
- Pole inspection rates
- Replacement and repair rates
- LED luminaire failure rates
- LED luminaire prices (and specifically reliance on market tested prices)
- Hours per day.

We have assessed AusNet Services' public lighting proposal and the corresponding models with a view to considering the LGR's suggested benchmarking of inputs. We do not accept several of the operations and maintenance adjustments proposed by AusNet Services. Generally speaking, AusNet Services' proposed changes represent a departure from the assumptions used by other distributors and/or from the assumptions used in our 2016−20 determination.

We have amended a number of AusNet Services' proposed input assumptions by substituting inputs that are being maintained and achieved by other distributors. We consider that this type of benchmarking can help to identify where distributors can be operating more efficiently.

In relation to AusNet Services' proposed increase in rates per hour for its elevated platform and patrol vehicles, we do not accept scale of the proposed increase. AusNet Services' proposed rates are the highest of those proposed by any of the Victorian distributors. We have instead substituted in the proposed rates of Powercor, which are in the middle of distributors' proposed rates, which we consider represents an efficient benchmark for AusNet Services.

In relation to AusNet Services' proposed reduction in the number of repairs and bulk changes per day, we note that it has reported difficulties in achieving the currently assumed repairs and bulk changes per day.[130] We do not, however, accept the level of reduction in repairs and bulk changes per day submitted by AusNet Services. Instead, we have substituted the repairs and bulk changes per day being achieved by

[130] AusNet Services, *ASD - EDPR 2022–26 Regulatory Proposal Part IV 310120 PUBLIC*, 31 January 2020, p 38.

Powercor for the same light types and have applied these to AusNet Services. We consider Powercor, a largely rural distributor like AusNet Services, is the most comparable of the other distributors and we consider that AusNet Services should be able to achieve the level of repairs and bulk changes per day for the light types being achieved by Powercor as per Table 16.25.

The LGR questioned why the LED luminaire failure rates proposed by AusNet Services were above the benchmark proposed by other distributors. AusNet Services confirmed that the high LED luminaire failure rates in its proposal were the result of an error in the model calculating these rates. We have corrected this error in the failure rate calculation for LEDs.[131]

As noted above, we consider that AusNet Services' LED luminaire unit costs do not represent the most efficient pricing available, and we have accordingly reduced the unit costs of these inputs.

There are, however, a number of areas where AusNet Services benchmarked well and where we have not made any adjustments. Specifically in relation to labour rates per hour and pole inspection rates.

In considering the standardisation of hours worked assumptions, we note that all Victorian distribution businesses used 8 hours per day in their public lighting models for the previous regulatory determination. For the 2021–26, all distribution businesses except AusNet Services have proposed 8 hours per day as inputs in their public lighting models.

The LGR submission references a 2010 Impaq Consulting report stating that 7.5 hours should be used by all distribution businesses as a standard for the input of available hours per day for public lighting services.[132] The Impaq Consulting report recommends 7.5 hours on the basis that distributors operate on 9-day-per-fortnight basis, but noted that 8.33 hours was equivalent for a 10-day-fortnight. We consider that 7.5 hours per day is therefore within a reasonable range and have accepted this assumption in our draft decision for AusNet Services.

The below summarises the adjustments we have made to AusNet Services' inputs (with the exception of LED luminaire prices, which are listed in Table 16.23).

Table 16.25 Amendments to proposed inputs

Input	Proposed	Draft Decision
Elevated platform vehicle (per hour) - urban MV, urban T5	$72.59	$50.18
Elevated platform vehicle (per hour) - rural MV, rural T5, S-HP	$103.72	$63.64

131 AusNet Services, *Response to Information request 58*, Q3, 12 August 2020, p. 3.

132 Impaq Consulting Report – Review of rates for the proposed ACS – 25 May 2010. The AER used this report in assessing ACS charges during the 2011–15 regulatory determination.

Input	Proposed	Draft Decision
Patrol vehicle (per hour)	$39.54	$34.37
Number of bulk lamp changes in 1 day urban	66	86
Number of bulk lamp changes in 1 day rural	54	72
Number of bulk lamp changes in 1 day remote	37	60
Number of repairs in 1 day MV80 urban	18	29
Number of repairs in 1 day MV80 rural	14	24
Number of repairs in 1 day MV80 remote	10	19
Number of bulk PE Cell changes in 1 day P LED urban	66	74
Number of bulk PE Cell changes in 1 day P LED rural	54	61
Number of bulk PE Cell changes in 1 day P LED remote	37	49
Number of repairs in 1 day P LED urban	18	25
Number of repairs in 1 day P LED rural	14	20
Number of repairs in 1 day P LED remote	10	16

Sources: AER analysis; AusNet Services, 2021–26 Regulatory proposal – Public lighting Model – Jan2020 – Public, 31 January 2020, "DNSP Inputs O & M" Tab.

The LGR submission also noted that there was early engagement in April 2019 between AusNet Services and local councils, which allowed AusNet Services to address some errors in its proposal, particularly regarding assumptions on failure rates of specific lighting technology types. AusNet Services invited councils to review its cost build-up model at this time, providing a high level of transparency not demonstrated by other distributors. Unfortunately, the LGR submission notes that the local council feedback on the preliminary cost build-up model was not incorporated into AusNet Services' proposal.[133]

Victorian Community Organisations

A joint submission from Victorian community organisations stated that, while in principle they support the transition to more efficient lighting, they note that more efficient lighting is often more expensive to supply and install than the existing approaches. They requested the AER to create a guideline to provide a consistent approach for distributors to apply when assessing whether to change public lighting to

[133] Victorian Greenhouse Alliances, *Local Government Response to Victorian Electricity Distribution Price Review (EDPR) 2021–26*, 25 May 2020, pp. 41-42.

more efficient lighting, including explicit consideration of how cost of electricity calculations would feed into this decision.[134]

Through our recent regulatory determinations we have observed that many stakeholders and distributors support the adoption of LED lights. The reduction in energy consumption and reduced maintenance costs, coupled with declining LED unit costs, are continuing to make these lights more attractive and affordable.

We acknowledge that public lighting customers may have differing views about the merits of replacing non-LED lights with LED lights upon failure, or of the benefits of bulk replacement programs. We consider that the regulatory process, with its consideration of stakeholder feedback on distributors' proposals and revised proposals (in addition to any distributor-led consultation carried out prior to or during the regulatory process), provides an appropriate avenue to consider whether public lighting customers and other stakeholders consider that the appropriate balance has been reached in the distributors' proposed approach to the rollout of LED lighting. We encourage public lighting customers to provide their views through these consultation processes, which help to inform our decisions on public lighting pricing.

We consider that active dialogue between public lighting customers and distributors, supported by the framework of the regulatory process, is more likely to deliver outcomes sought by public lighting customers in each relevant distribution zone than a general guideline.

Price movements

Overall, AusNet Services' proposed revenue for the 2021–6 regulatory control period was 45 per cent higher than total estimated revenue for the current regulatory control period.[135]

The amendments we have made in our draft proposal have resulted in a decrease in revenues for the 5-year regulatory control period from $64.4 million to $58.9 million (nominal), which has the average effect of reducing the first-year movements in public lighting prices relative to AusNet Services' proposal.

Our amendments have also led to some further adjustments to price relativities. For example, we substituted LED luminaire costs with lower unit rates as a result of our benchmarking analysis.

Taking these adjustments into account, our draft decision prices for selected 2021–22 public lighting charges are:

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[134] Victorian community organisations, *2021–2026 Victorian EDPR – Joint submission from Victorian community of organisations - summary document*, Section 11 – Public lighting, May 2020, p 79.

[135] AER analysis. Comparison of the actual revenue provided by AusNet Services in its Economic Benchmarking RINs for 2016 to 2019 and estimated values for 2020 with the real $2021 revenue projections proposed for the 2021─26 regulatory control period in AusNet Services' proposed public lighting model.

- for HP sodium 150 watt lights, 9.9 per cent lower for AusNet Central and 10.3 per cent lower for AusNet North & East compared to AusNet Services' proposal
- for Category P 18 watt LED lights, 21 per cent lower for AusNet Central and 22 per cent lower for AusNet North & East compared to AusNet Services' proposal
- for Category V L1 LED lights, 20 per cent lower for AusNet Central and 19 per cent lower for AusNet North & East compared to AusNet Services' proposal.

On the basis of our analysis of AusNet Services' models and consideration of stakeholder feedback, we consider that these draft decision prices will provide AusNet Services with an opportunity to recover the efficient costs of providing its public lighting services and will assist in supporting the transition to more energy-efficient forms of lighting with the associated benefits for customers.

The draft decision prices are set out in Appendix C.

A Ancillary network services prices

Prices in this Appendix A are in $2020–21. We will incorporate actual inflation in our final decision to derive 2021–22 prices in nominal terms.

Table 16.26 Fee-based ancillary network services prices for 2021–22 ($2020–21), draft decision - business hours

Service description	AusNet Services' proposal	AER draft decision
Connection-related		
Single Phase overhead	$482.29	$482.29
Single Phase underground	$209.63	$209.63
Single Phase underground with a directly connected meter on group metering panel	$460.94	$460.94
Multi-phase overhead with a directly connected meter	$552.80	$552.80
Multi-phase overhead with a CT connected meter	$1,055.42	$1,055.42
Multi-phase underground with a directly connected meter	$338.81	$338.81
Multi-phase underground with a directly connected meter on group metering panel	$590.12	$590.12
Multi-phase underground with a CT connected meter	$841.42	$841.42
95mm2 overhead service from LVABC	$832.10	$832.10
Establish temporary supply connection	$482.29	$482.29
Appointment – inspection of group or CT metering prior to connection	$502.62	$502.62
Service truck - Disconnect / Reconnect at pole or pit	$553.84	$553.84
Other		
Meter equipment test – Single Phase	$297.72	$297.72
Meter equipment test – Single Phase Each Additional Meter at same site	$66.40	$66.40
Meter equipment test – Multi Phase	$359.85	$359.85
Meter equipment test – Multi Phase Each Additional Meter at same site	$98.37	$98.37
Wasted Truck Visit – customer not ready for their requested works	$205.99	$205.99
Manual assessment of PV & small generator installation enquiry, 4.6kW to 15kW	$318.00	$318.00
Manual assessment of PV & small generator installation enquiry, 15kW to 30kW	$318.00	$318.00
Auxiliary metering services		
Remote special meter read	$1.13	0

Service description	AusNet Services' proposal	AER draft decision
Remote re-energisation	0	0
Remote de-energisation	0	0
Remote meter re-configuration	$14.75	$14.75
Field officer visit	$33.97	$33.97
Manual meter reading	$33.97	$33.97
Priority re-energisation	$32.88	$32.88
Non-standard AMI data subscription (per month)	N/A	$0.84 (for compliance purposes only)[1]
Type 7 metering charge		
Per NMI	$29.28	$29.28
Per light	$1.73	$1.73

Notes: 1. As discussed in section 16.1.4.5, 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 16.27 Fee-based ancillary network services prices for 2021–22 ($2020–21), draft decision - after hours

Service description	AusNet Services' proposal	AER draft decision
Connection-related		
Single Phase overhead	$1,276.03	$844.01
Single Phase underground	$1,276.03	$366.85
Multi-phase overhead with a directly connected meter	$1,276.03	$967.40
Multi-phase overhead with a CT connected meter	$1,778.65	$1,778.65
Multi-phase underground with a directly connected meter	$1,276.03	$592.92
Multi-phase underground with a CT connected meter	$1,778.65	$1,472.49
95mm2 overhead service from LVABC	$2,108.14	$1,456.18
Establish temporary supply connection	$1,276.03	$844.01
Auxiliary metering services		
Field officer visit	$67.94	$59.45

Table 16.28 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 16.29 Quoted service hourly labour rates for 2020–21, draft decision ($2020–21)

Service description	AER labour type	AER draft decision maximum total hourly rate - business hours	AER draft decision maximum total hourly rate - after hours
Construction Overhead Install	Field worker	$114.12	$138.61
Construction Underground Install	Field worker	$111.47	$135.38
Construction Substation Install	Field worker	$111.47	$135.38
Electrical Tester Including Vehicle & Equipment	Technical specialist	$171.75	$224.68
Planner Including Vehicle	Technical specialist	$153.20	N/A
Supervisor Including Vehicle	Technical specialist	$153.20	N/A
Design	Engineer	$130.81	$158.87
Drafting	Technical specialist	$100.52	$122.08
Survey	Technical specialist	$118.40	$143.81
Tech Officer	Technical	$118.40	$143.81

Service description	AER labour type	AER draft decision maximum total hourly rate - business hours	AER draft decision maximum total hourly rate - after hours
	specialist		
Line Inspector	Technical specialist	$114.12	$138.61
Contract Supervision	Technical specialist	$118.40	$143.81
Protection Engineer	Engineer	$130.81	$158.87
Maintenance Planner Including Vehicle	Technical specialist	$118.40	$143.81

Source: Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet: Advice to the Australian Energy Regulator*, 30 June 2020, p. 10; AusNet Services, *Alternative Control - Build up of Prices*, 31 January 2020, 'Quoted Services'!.

Table 16.30 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	0.2498	0.0726	−0.3673	–0.9966

Source: AER analysis.

Note: We do not apply an X-factor for 2020–21 because we set the 2020–21 ancillary network service prices in this determination.

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

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

Table 16.31 AER draft decision metering exit fees ($ nominal)

Meter type	2021–22
Single phase single element	365.61
Single phase two element with contactor	362.55
Multiphase	364.28
Multiphase with contactor	364.28
Multiphase CT connected	364.45

Source: AER, Draft decision AusNet - distribution determination 2021–26 - Metering PTRM, September 2020.

Table 16.32 AER draft 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	6.16	7.22	8.28	9.25
Single phase two element with contactor	6.08	7.15	8.21	8.71
Multiphase	6.12	7.19	8.24	9.03
Multiphase with contactor	6.12	7.19	8.24	9.03
Multiphase CT connected	6.13	7.19	8.25	9.06

Source: AER, Draft decision AusNet - distribution determination 2021–26 - Metering PTRM, September 2020.

C Public lighting services

Table 16.33 Draft Decision Public Lighting Prices ($ nominal)

Light types	Proposed	Draft Decision
Central Area		
Mercury Vapour 80W	62.92	52.21
HP Sodium 150W	114.86	103.05
HP Sodium 250W	116.75	104.79
Mercury Vapour 50W	96.27	79.88
Mercury Vapour 125W	92.49	76.75
Mercury Vapour 250W	122.58	110.03
Mercury Vapour 400W	127.25	114.23
HP Sodium 100W	122.89	110.26
HP Sodium 400W	165.78	148.81
Metal Halide 70W	274.65	227.91
Metal Halide 100W	274.24	246.05
Metal Halide 150W	311.55	279.54
HP Sodium 50W	50.92	45.69
T5 2X14W	58.18	45.86
T5 2X24W	60.56	48.93
LED 18W	33.94	26.77
LED 14W	36.12	27.95
LED 70W-125W (L1)	45.58	36.55
LED 155W-250W (L2)	47.64	37.10
LED 275W-400W (L4)	59.34	50.88
Compact Fluorescent 32W	51.18	40.34
Compact Fluorescent 42W	51.18	40.34
North and East Area		
Mercury Vapour 80W	72.15	57.64
HP Sodium 150W	135.06	121.13
HP Sodium 250W	133.74	120.02
Mercury Vapour 50W	106.78	85.31
Mercury Vapour 125W	106.78	85.31

Light types	Proposed	Draft Decision
Mercury Vapour 250W	139.09	124.82
Mercury Vapour 400W	143.10	128.42
HP Sodium 100W	144.51	129.61
HP Sodium 400W	189.91	170.43
Metal Halide 70W	274.49	219.28
Metal Halide 100W	286.06	256.56
Metal Halide 150W	324.99	291.47
HP Sodium 50W	61.41	55.08
T5 2X14W	68.49	50.65
T5 2X24W	72.05	54.16
LED 18W	37.20	28.90
LED 14W	39.06	30.01
LED 70W-125W (L1)	51.21	41.48
LED 155W-250W (L2)	53.27	42.03
LED 275W-400W (L4)	68.28	58.44
Compact Fluorescent 32W	60.24	44.55
Compact Fluorescent 42W	60.24	44.55

Table 16.34 Draft Decision Public Lighting - X factors

AusNet Services Lights (Central)	2022–23	2023–24	2024–25	2025–26
Mercury Vapour 80W	-0.2682%	9.3447%	-2.1427%	-0.5992%
Sodium High Pressure 150 watt	-0.0427%	-3.2169%	-1.8597%	-0.6521%
Sodium High Pressure 250 watt	-0.0395%	-3.3574%	-1.8687%	-0.6495%
Mercury vapour 50 watt	-0.2682%	9.3447%	-2.1427%	-0.5992%
Mercury vapour 125 watt	-0.2682%	9.3447%	-2.1427%	-0.5992%
Mercury vapour 250 watt	-0.0395%	-3.3574%	-1.8687%	-0.6495%
Mercury vapour 400 watt	-0.0395%	-3.3574%	-1.8687%	-0.6495%
HP Sodium 100W	-0.0427%	-3.2169%	-1.8597%	-0.6521%
HP Sodium 400W	-0.0395%	-3.3574%	-1.8687%	-0.6495%
Metal halide 70 watt	-0.2682%	9.3447%	-2.1427%	-0.5992%
Metal halide 100 watt	-0.0427%	-3.2169%	-1.8597%	-0.6521%
Metal halide 150 watt	-0.0427%	-3.2169%	-1.8597%	-0.6521%
HP Sodium 50W	-0.0427%	-3.2169%	-1.8597%	-0.6521%
T5 2X14W	-1.2111%	-0.9484%	-0.9263%	-1.0424%
T5 2X24W	-1.1471%	-0.9020%	-0.8956%	-1.0276%
LED 18W	-1.8714%	-1.4272%	-1.2432%	-1.1918%
LED 14W	-1.7834%	-1.3654%	-1.2045%	-1.1764%
LED 70W-125W (L1)	-2.1378%	-1.5967%	-1.4204%	-1.4469%
LED 155W-250W (L2)	-2.2068%	-1.6426%	-1.4557%	-1.4786%
LED 275W-400W (L4)	-2.2297%	-1.6478%	-1.4884%	-1.5718%
Compact Fluorescent 32W	-1.2111%	-0.9484%	-0.9263%	-1.0424%
Compact Fluorescent 42W	-1.2111%	-0.9484%	-0.9263%	-1.0424%

AusNet Services Lights (North & East)	2022–23	2023–24	2024–25	2025–26
Mercury Vapour 80W	-0.2253%	11.3243%	-1.9946%	-0.5875%
Sodium High Pressure 150 watt	-0.0068%	-1.4787%	-1.6446%	-0.6615%
Sodium High Pressure 250 watt	-0.1031%	-1.8637%	-1.6834%	-0.6561%
Mercury vapour 50 watt	-0.2253%	11.3243%	-1.9946%	-0.5875%
Mercury vapour 125 watt	-0.2253%	11.3243%	-1.9946%	-0.5875%
Mercury vapour 250 watt	-0.1031%	-1.8637%	-1.6834%	-0.6561%
Mercury vapour 400 watt	-0.1031%	-1.8637%	-1.6834%	-0.6561%
HP Sodium 100W	-0.0068%	-1.4787%	-1.6446%	-0.6615%
HP Sodium 400W	-0.1031%	-1.8637%	-1.6834%	-0.6561%
Metal halide 70 watt	-0.2253%	11.3243%	-1.9946%	-0.5875%
Metal halide 100 watt	-0.0068%	-1.4787%	-1.6446%	-0.6615%
Metal halide 150 watt	-0.0068%	-1.4787%	-1.6446%	-0.6615%
HP Sodium 50W	-0.0068%	-1.4787%	-1.6446%	-0.6615%
T5 2X14W	-1.0807%	-0.8520%	-0.8547%	-0.9906%
T5 2X24W	-1.0201%	-0.8082%	-0.8258%	-0.9772%
LED 18W	-1.7199%	-1.3144%	-1.1586%	-1.1292%
LED 14W	-1.6486%	-1.2644%	-1.1274%	-1.1171%
LED 70W-125W (L1)	-1.8609%	-1.4003%	-1.2792%	-1.3484%
LED 155W-250W (L2)	-1.9254%	-1.4436%	-1.3124%	-1.3780%
LED 275W-400W (L4)	-1.9173%	-1.4295%	-1.3292%	-1.4544%
Compact Fluorescent 32W	-1.0807%	-0.8520%	-0.8547%	-0.9906%
Compact Fluorescent 42W	-1.0807%	-0.8520%	-0.8547%	-0.9906%

Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
ACS	alternative control services
AER	Australian Energy Regulator
AMI	advanced metering infrastructure
CAM	cost allocation method
capex	capital expenditure
CCP17	Consumer Challenge Panel, sub-panel 17
CMS	control management system
CESS	capital expenditure sharing scheme
CPI	consumer price index
distributor	distribution network service provider
DSO	distribution system operator
DELWP	Department of the Environment, Land, Water and Planning (Victoria)
ECA	Energy Consumers Australia
EMCa	Energy Market Consulting Associates
ESC	Essential Services Commission (Victoria)
F&A	framework and approach
LED	Light Emitting Diode
LGR	Local Government Response
NEL	National Electricity Law
NEM	National Electricity Market
NEO	National Electricity Objective
NER	National Electricity Rules
NPV	net present value
NSP	network service provider

Shortened form	Extended form
opex	operating expenditure
PTRM	post-tax revenue model
RAB	regulatory asset base
RIN	regulatory information notice
SCS	standard control services
WACC	weighted average cost of capital