Draft decision

AusNet Services electricity distribution determination

1 July 2026 – 30 June 2031

Attachment 2 – Capital expenditure

September 2025

AUSTRALIAN ENERGY REGULATOR

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Capital expenditure (capex) refers to the money required to build, maintain or improve the physical assets needed to provide standard control services (SCS).[1] Generally, these assets have long lives and a distributor will recover capex from customers over several regulatory control periods. A distributor's capex forecast contributes to the return of and return on capital building blocks that form part of its total revenue requirement.

Under the regulatory framework, a distributor must include a total forecast capex that it considers is required to meet or manage expected demand, comply with all applicable regulatory obligations, to maintain the safety, reliability, quality, and security of its network and contribute to achieving emissions reduction targets for reducing Australia's greenhouse gas emissions (the capex objectives).[2]

We must decide whether or not we are satisfied that this forecast reasonably reflects prudent and efficient costs and a realistic expectation of future demand, cost inputs, and other relevant inputs (the capex criteria).[3] We must make our decision in a manner that will, or is likely to, deliver efficient outcomes in terms of price, quality, safety, reliability and security of supply and contribute to achieving targets for reducing Australia's greenhouse gas emissions for the benefit of consumers in the long term (as required under the National Electricity Objective (NEO)).[4]

The *AER capital expenditure assessment outline* explains our and distributors' obligations under the National Electricity Law and Rules (NEL and NER) in more detail.[5] It also describes the techniques we use to assess a distributor's capex proposal against the capex criteria and objectives. Where relevant we also assess capex associated with emissions reduction proposals taking into account our *Guidance on amended National Electricity Objectives*.[6]

Total capex framework

We analyse and assess capex drivers, programs and projects to inform our view on a total capex forecast. However, we do not determine forecasts for individual capex drivers or determine which programs or projects a distributor should or should not undertake. This is consistent with our *ex-ante* incentive-based regulatory framework.

Once the *ex-ante* capex forecast is established, there is an incentive for distributors to provide services at the lowest possible cost, because the actual costs of providing services will determine their returns in the short term. If distributors reduce their costs, the savings are shared with consumers in future regulatory control periods. Our assessment of the ex-ante capex is consistent with the NEO, which in addition to providing for the lowest possible costs also recognises that services should be valued appropriately and adapt to changing

1 These are services that form the basic charge for use of the distribution system.

2 NER, cl. 6.5.7(a).

3 NER, cl. 6.5.7(c).

4 NEL, ss. 7, 16(1)(a).

5 AER, *Capex assessment outline for electricity distribution determinations*, February 2020.

6 AER, Guidance on amended National Electricity Objectives, September 2023.

circumstances to maintain efficiencies in the long term interest of consumers. This incentive-based framework provides distributors with the flexibility to prioritise their capex program given their circumstances and due to changes in information and technology.

Distributors may need to undertake programs or projects that they did not anticipate during the reset. Distributors also may not need to complete some of the programs or projects proposed if circumstances change, these are decisions for the distributor to make. We consider a prudent and efficient distributor would consider the changing environment throughout the regulatory control period and make decisions accordingly.

Importantly, our decision on total capex does not limit a distributor's actual spending. We set the forecast at a level where the distributor has a reasonable opportunity to recover its efficient costs.

Assessment approach

We provide guidance on our assessment approach in several documents, including the following which are of relevance to this decision:

- AER's *Expenditure Forecast Assessment Guidelines*[7]
- Regulatory Investment Test for Distribution and Transmission (RIT-D and RIT-T) Guidelines[8]
- AER's *Asset Replacement Industry Note*[9]
- AER's *Information and Communication Technologies (ICT) Guidance Note*[10]
- AER's *Guidance on amended National Electricity Objectives*[11]
- AER's *An interim guidance on emissions reduction*.[12]

We also had regard to the guiding principles in the AER's *Better Resets Handbook – Towards consumer centric network proposals* which encourages networks to develop high quality, well-justified proposals that genuinely reflect consumers' preferences.[13]

Our draft decision has been based on the information before us, which includes:

- the distributor's regulatory proposal and accompanying documents and models
- the distributor's responses to our information requests
- stakeholder comments in response to our Issues Paper
- technical review and advice from our consultant's reports. In this instance:

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7 AER, *Expenditure Forecast Assessment Guideline 2013*, August 2022.

8 AER, *RIT-T and RIT-D application guidelines (minor amendments) 2017*, September 2017.

9 AER, *Industry practice application note for asset replacement planning*, January 2019.

10 AER, *AER publishes guidance on non-network ICT capital expenditure assessment approach*, November 2019.

11 AER, *Guidance on amended National Electricity Objectives*, September 2023.

12 AER, *An interim guidance on emissions reduction*, June 2025.

13 AER, *Better Resets Handbook – Towards consumer-centric network proposals*, December 2021.

- we sought technical review and advice from Energy Market Consulting Associates (EMCa) to assist us in reviewing certain aspects of the capex proposal, including replacement, augmentation and information and communication technology expenditure[14]
- demand forecasting advice from Baringa, which including the maximum demand, customer numbers and energy consumption forecasts.[15]

2.1 Draft decision

Our draft decision is to not accept AusNet's proposed total forecast capex of $3,496.0 million ($2025–26) for the 2026–31 period because we are not satisfied that it reasonably reflects the capex criteria (in particular, we are not satisfied that it reasonable reflects the prudent and efficient costs, and a realistic expectation of demand and cost inputs required, to meet the capex objectives). Our alternative forecast is $1,701.4 million, which is 51.3% below AusNet's forecast.

We consider this forecast will provide for a prudent and efficient service provider in AusNet's circumstances to meet the capex objectives. Table 2.1 outlines our alternative estimate of forecast capex and compares this to AusNet's proposed forecast capex.

We encourage AusNet to respond to the issues we have raised in our draft decision and welcome further supporting information in its revised regulatory proposal.

Table 2.1 AER's draft decision on AusNet's total net capex forecast ($2025–26, million)

	2026–27	2027–28	2028–29	2029–30	2030–31	Total
AusNet's proposal	603.1	687.0	729.4	733.5	743.1	3,496.0
AER's draft decision	348.1	352.8	339.2	328.2	333.2	1,701.4
Difference ($)	-255.0	-334.2	-390.2	-405.3	-409.9	-1,794.6
Difference (%)	-42.3%	-48.7%	-53.5%	-55.3%	-55.2%	-51.3%

Source: AER analysis and AusNet's proposal.

Note: Numbers may not add up due to rounding. Modelling adjustments relate to updates to the consumer price index (CPI) and real cost escalation assumptions.

2.2 AusNet's proposal

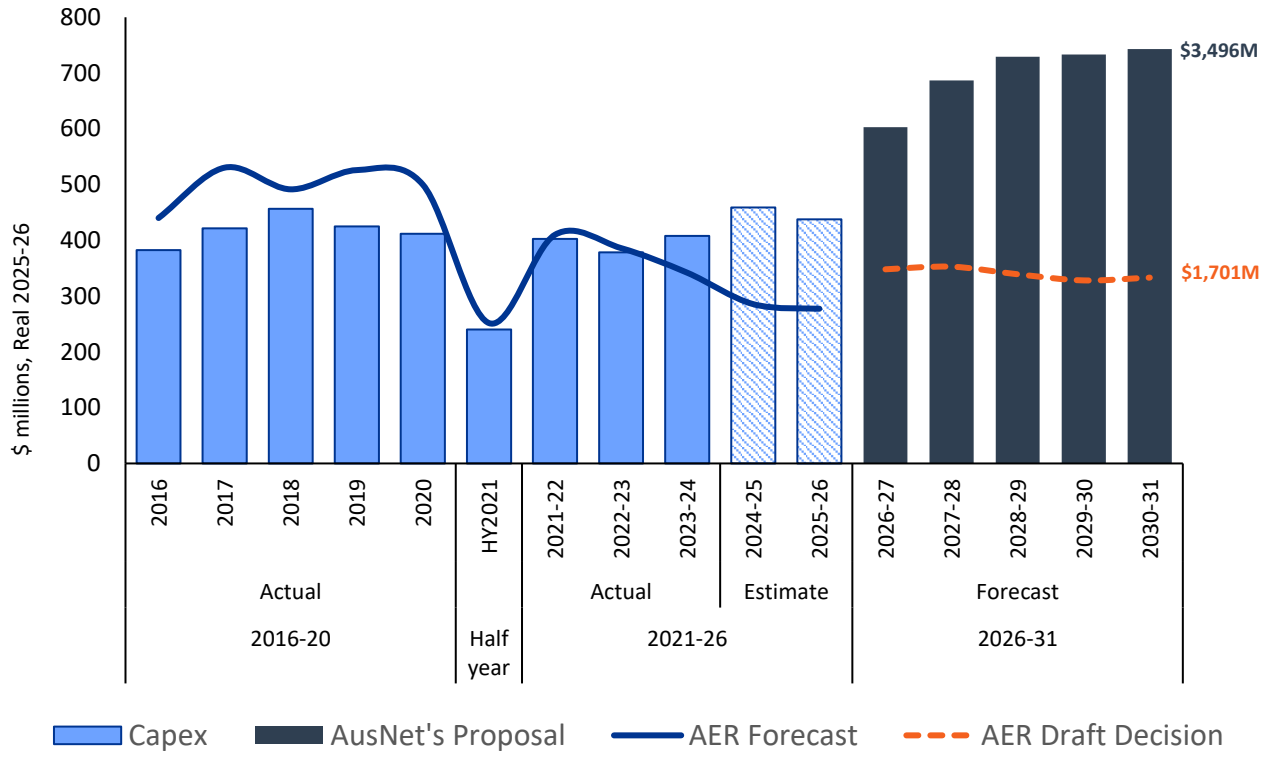
AusNet's proposal forecasts $3,496.0 million ($2025–26) capex over the 2026–31 regulatory control period. This represents an increase of approximately 71% compared to actual and expected expenditure over the 2021–26 period.

Figure 2.1 outlines AusNet's historical capex trend, its proposed forecast for the 2026–31 regulatory control period, and our draft decision.

[14] EMCa, *Report to AER on AusNet Network related expenditures and CER*, August 2025; EMCa, *Report to AER on AusNet ICT*, August 2025.

[15] Baringa, *Report to AER on AusNet Demand Forecast*, July 2025.

Figure 2.1 AusNet's historical and forecast capex ($2025–26, million)



Source: AER RIN Database, AER Analysis.
Note: Nominal figures converted to real dollars 2025–2026.

AusNet expects to overspend its capex in the current 2021–26 regulatory period by $326.9 million ($2025–26) or 19% compared to our forecast.[16] As shown in the above figure 2.1, a majority of this expected overspend is to occur in the last 2 years of the current period. This may trigger an ex-post review in the 2031–36 regulatory determination. However, AusNet incurred total capex below its regulatory forecast for the current ex-post review period (2020 to 2023–24 regulatory years) and on this basis, the overspending requirement for an efficiency review of past capex is not satisfied (see table 2.5 below).

AusNet state that its capex was greater than expected due to:[17]

- increased labour and material costs due to market-driven cost pressures affecting the whole industry
- the deferral of zone substation rebuilds and some replacement expenditure (repex) programs
- delays and cost increases for some Rapid Earth Fault Current Limiter (REFCL) compliance augmentation expenditure (augex) relative to the approved timing and costs
- investments to address strong anticipated demand growth, including land purchases (not previously forecast) to accommodate new zone substations

16 AusNet, *ASD – AusNet – EDPR 2026 – 2031 Regulatory Proposal – 31 Jan 2025*, p. 95.

17 AusNet, *ASD – AusNet – EDPR 2026 – 2031 Regulatory Proposal – 31 Jan 2025*, p. 95.

- additional load connections and unanticipated hybrid/battery connections (not previously forecast)
- addressing unanticipated issues that have arisen over the period, including reliability issues
- an overspend on the Advanced Distribution Management System (ADMS) and customer platforms to improve resilience and customer experience.

AusNet's forecast investment requirement in the next regulatory period is 71% higher than expected investment in the current period. AusNet states that the uplift reflects a range of factors which are driving the need for greater investment. These including the need to replace aging and deteriorated assets, manage higher unit costs driven by market pressures, enable electrification and unlock renewable energy, uplift network resilience and regional reliability, upgrade and refurbish its ageing depots and deliver an improved customer experience.[18]

AusNet is proposing material increases in all capex categories besides capitalised overheads and other non-network, this includes increasing its:[19]

- replacement expenditure by 69.7% ($1,316.9 million or 34.5% of its total forecast capex) to manage and maintain its ageing network, which it considers necessary to address safety, reliability and resilience across the network
- augmentation expenditure by 148.2% ($911.2 million or 23.9% of its total forecast capex). This forecast is driven by a significant increase in demand driven augmentation ($404.0 million), a program to enable large renewable connections ($180.4 million) and additional expenditure on reliability, including a proposed regional reliability allowance ($88.9 million)
- information and technology (ICT) expenditure by 19.5% ($386.7 million or 10.1% of its total forecast capex). AusNet states that the increase in this period is driven by customer expectations, CER penetration and rising external threats such as storms or cyber
- resilience expenditure, which is a new $260.9 million program, consisting of $218.6 million of repex and $42.3 million of augex, in response to increased extreme weather events of the past five years. Most of this program is forecast to be spent on network hardening solutions.

Table 2.2 provides a breakdown of AusNet's capex proposal in more detail.

18 AusNet, *ASD – AusNet – EDPR 2026 – 2031 Regulatory Proposal – 31 Jan 2025*, p. 19.

19 AER, *Issues Paper, AusNet Services electricity distribution determination 2026–31*, March 2025, pp. 25–28.

Table 2.2 AusNet's forecast capex categories verses current period actual/estimates ($2025–26, million)

Category	AusNet's 2021–26 capex	AusNet's 2026–31 forecast	Change from 2021–26 (%)	Proportion of total capex
Replacement	775.9	1,316.9	69.7%	34.5%
Augmentation	367.2	911.2	148.2%	23.9%
Connections	528.4	576.5	9.1%	15.1%
ICT	323.6	386.7	19.5%	10.1%
Property	56.0	173.7	210.0%	4.6%
Fleet	8.6	144.2	1,574.4%	3.8%
CER integration	48.0	89.5	86.7%	2.3%
Non-network - other	12.6	4.6	-63.7%	0.1%
Capitalised overheads	223.9	209.1	-6.6%	5.5%
Gross Total	**2,344.2**	**3,812.4**	**62.6%**	**100%**
Customer contribution connections	291.3	277.3	-4.8%	
Disposals	4.8	39.2	715.2%	
Net Total	**2,048.2**	**3,496.0**	**70.7%**	

Source: AER analysis.

Note: Numbers may not add up to total due to rounding.

2.3 Reasons for draft decision

We reviewed AusNet's' capex drivers, programs and projects to inform our view on a total capex forecast that reasonably reflects the capex criteria. We conducted top-down analysis such as examining trends and forecast costs compared with historical capex, and inter-relationships between cost categories. To complement this, we conducted bottom-up analysis of AusNet's specific major programs and projects.

Our capex assessment focused primarily on the material capex categories that either represented a significant uplift in expenditure, had stakeholder interest or are new and evolving areas such as CER and resilience. Capex that was relatively small and forecast using established modelling approaches and inputs in line with our expectations, meant that we did not need to undertake a more detailed analysis of the individual programs and projects. An example of this was AusNet's 'non-network - other' forecast. Our draft decision is reflective of this approach as set out in Table 2.4 and Table 2.5 below.

Further, in considering the scope of our review we had regard to how AusNet has performed against the Better Resets Handbook expectations for capex.[20] We consider that AusNet has satisfied the capex expectations related to genuine consumer engagement on its capex

[20] AER, *Better Resets Handbook – Towards Consumer Centric Network*, December 2021, pp. 19–23.

proposal but has not satisfied the remaining expectations. In this case we have undertaken a bottom-up review in most capex categories.

Our assessment against each expectation is set out in Table 2.3.

Table 2.3 Better Resets Handbook capex expectations

Capital expenditure expectations	AER Position
Top-down testing of the total capex forecast and at the category level.	AusNet has not met this expectation as the total forecast capex is 71% above current period actual/estimate spend. There is a material increase above current expenditure for most of AusNet's capex categories, except for non-network other and capitalised overheads as set out in table 2.2 above. AusNet has also applied the AER's repex model which covers 67% of the proposed repex however the proposal did not meet the thresholds for unit rates and age replacement. Further, we observe there has been a downwards trend in the System Average Interruption Frequency Index (SAIFI) performance for all of the network with no systemic uplift for any particular type of outage.
Evidence of prudent and efficient decision-making on key projects and programs.	AusNet has not satisfied this expectation. While it provides quantitative evidence of prudent and efficient decision-making such as cost benefit analysis for some projects and programs, it has not done so for several parts of its forecast. Further, in some cases where it has provided quantitative evidence, we found costs and/or benefits were higher than required such that we are not satisfied that its preferred option will result in the greatest net benefit to consumers.
Evidence of alignment with asset and risk management standards.	AusNet has not met this expectation. There has been an absence of documentation demonstrating the alignment of the proposal with asset and risk management standards.
Genuine consumer engagement on capital expenditure proposals.	AusNet has met this expectation. AusNet have undertaken extensive customer engagement in preparation of its proposal. Stakeholder submissions indicated that overall, the consumer engagement was conducted well. This has been considered in the capex proposal, including resilience and consumer energy resources.

Based on the information before us, we have reviewed AusNet's total capex forecast from a top-down and bottom-up perspective.

Our top-down testing of AusNet's forecast capex informed the scope of our bottom-up review. We observe the following about AusNet's forecast capex at the top-down level:

- its proposed total capex forecast is materially above (71%) current period actual/estimates

- it is proposing a step up in the forecast for almost all capex categories, with a material step up in the largest components of capex
- the repex modelling results indicate that AusNet has higher unit rates and shorter replacement lives compared to the National Electricity Market (NEM) median
- there is a decreasing trend in whole of network SAIFI from 2015 to 2024, suggesting that reliability of its network is generally improving overtime but acknowledge there is poor performance in some regional areas.

Given these top-down findings, we have undertaken a bottom-up review on most capex categories.

We have not accepted AusNet's forecast in full, reducing this by 51%, because we found that it did not provide sufficient quantitative evidence to support its material 71% step up in expenditure.

Based on the information provided, we have identified a significant number of key components of AusNet forecast that are not prudently required to maintain the safety, reliability or security of the network and contribute to achieving emissions reduction targets, or reflect the efficient costs of doing so. These are AusNet's proposed replacement, augmentation, connections, ICT, property and fleet, CER integration and innovation allowance expenditures.

In several instances we found that projects and programs had high unit costs or cost estimates that were difficult for us to substantiate based on the information provide, contained risks that are valued too highly or did not consider the full range of options analysis that we require in developing proposals of this nature, including detailed consideration of the optimal timing of investments. We require AusNet to undertake further analysis and provide additional supporting information to address these concerns in its revised proposal.

AusNet's replacement and augmentation expenditure made up the bulk of its proposal, at around 60% or over $2.2 billion, and included substantial demand driven network growth ($400.4 million) and resilience investments ($260.9 million) as well as programs to address regional reliability ($137.4 million).

Replacement expenditure is required to maintain the safety, security and reliability of the network. We observed that AusNet's overall reliability performance has been improving and yet we were provided with insufficient supporting evidence to suggest AusNet needs to increase its repex by around 70% compared to its current expenditure in the 2021–26 period. Due to insufficient historical data and lack of supporting material, we have been unable to accept certain projects until more information about the project's efficiency and prudency is provided. This includes the removal of $104 million ($2025–26) in general contingency risk allowances included across various capital expenditure estimates and unit rates.

Augmentation expenditure supports the network to address system constraints driven by changes in demand and network utilisation. We have not accepted AusNet's demand forecast. We consider that a number of demand driven projects are not required or can be prudently deferred. However, we require AusNet to update its demand forecast for the latest available information and address our concerns regarding its forecasting methodology, variables and inputs in its revised proposal. We recognise that the level of demand driven

augmentation expenditure is likely to change as we progress to our final decision in April 2026.

We acknowledge the continual need for networks to manage the risks of extreme weather and the projected increase in climate related risk. We also recognise the community concern around the network's ability to withstand extreme weather and restore power as soon as practicable in a safe and secure manner. This has been well established through AusNet's engagement in preparation of the proposal. We have taken this into consideration in assessing AusNet's resilience program. However, overall, we found that AusNet had not justified a majority of its resilience program as prudent and efficient. We have included $42.3 million in resilience expenditure for AusNet in our draft decision. Our alternative estimate does allow AusNet to undertake network hardening and stand-alone power systems and includes community resilience for mobile generation units and emergency response. In coming to our draft decision, we are cognisant of the prolonged outages AusNet has experienced over the recent period and AusNet's drive to better understand the climate risks it faces and minimise these risks.

We recognise the poor performance of the worse served feeders and the strong support from AusNet's customers to address poor performance. However, the evidence provided to us has not demonstrated that the proposed expenditure on the regional reliability programs is prudent or efficient. We have not included these programs of works in our draft decision. We require AusNet to undertake further root cause analysis to reassess the options of how best to address the underlying cause of the poor performance and include a more targeted investment it revised proposal.

Table 2.4 sets out our draft decision for AusNet by capex category.

Table 2.4 AER draft decision by capex category ($2025–26, million)

Category	AusNet's proposal	AER draft decision	Difference over capex category ($/%)	
Replacement	1,316.9	709.9	-607.0	-46.1%
Augmentation	911.2	228.8	-682.4	-74.9%
Connections	576.5	522.8	-53.7	-9.3%
ICT	386.7	252.6	-134.1	-34.7%
Property	173.7	120.5	-53.2	-30.6%
Fleet	144.2	88.0	-56.2	-39.0%
CER integration	89.5	33.6	-56.0	-62.5%
Non-network capex - other	4.6	4.6	-	-
Capitalised overheads	209.1	110.6	-98.5	-47.1%
Gross Total	**3,812.4**	**2,071.3**	**-1,741.1**	**-45.7%**
Less Customer contribution connections	277.3	272.2	-5.1	-1.8%
Less Disposals	39.2	39.2	-	-
Modelling adjustments		-58.5	-58.5	
Net Total	**3,496.0**	**1,701.4**	**-1,794.6**	**-51.3%**

Source: AusNet's capex model and AER analysis.

Note: Numbers may not sum due to rounding. Modelling adjustments relate to updates to the consumer price index (CPI) and real cost escalation assumptions.

Table 2.5 summarises our views on each of the capex categories and whether they are prudent and efficient and reflect the capex criteria, and the reasons for this. Further detail and reasons on capex for the draft decision are contained in Appendices A.1 to A.9.

Our findings on each capex driver are part of our broader analysis and should not be considered in isolation. We do not approve an amount of forecast expenditure for each individual capex driver or project/program. However, we use our findings on the different capex drivers to assess a regulated business' proposal as a whole and arrive at an alternative estimate for total capex where necessary. Our decision on total capex does not limit a regulated business' actual spending.

Table 2.5 Summary of findings and reasons, by capex category

Issue	Findings and reasons
Replacement	We have not included all of AusNet's replacement expenditure in the total forecast capex. AusNet proposed $1,099.7 million ($2025–26) for replacement capex, excluding resilience. Our draft decision is to include $687.9 million for replacement capex. This is $411.8 million or 37.4% less than what AusNet proposed. We found that: • the top-down analysis of AusNet's proposal led us to focus our review on a bottom-up assessment, as we incurred data issues in our trend analysis and AusNet did not meet the requirements set by the repex model • AusNet's risk modelling that was used to model a significant portion of its repex proposal was not sufficiently justified. Modelling for probability of failures were not calibrated against observed historical failures, contributing to more replacements, earlier than required • inputs for consequence of failure were reliant on values that appear too high. Source values for environmental and safety consequence of failure were inconsistent and overestimated in some models. The value for unserved energy under its customer consequence of failure was also higher than expected, and we did not accept AusNet's QCV/VCR hybrid approach • AusNet's QCV/VCR approach was not justified as an alternative to the AER's VCR approach as AusNet's values lacked consideration of different modelling approaches and relied on older data compared to the AER's 2024 VCR • cost estimations for AusNet's repex proposal were made up of blanket percentage inputs that were not sufficiently justified. Further information about where program overlaps and other efficiencies is required. We also did not accept AusNet's risk allowance on the basis that project specific analysis to support its risk allowance was not provided Our alternate forecast for repex adjusts AusNet's modelling inputs, resulting in changes to proposed replacement volumes and timing adjustments. Where there is insufficient information for its proposed programs, we have referred to historical expenditure where possible to contribute to our forecast. Our reasons for this are set out in Appendix A.1.(Replacement)

Issue	Findings and reasons
Augmentation	We have not included all of AusNet's augmentation expenditure in the total forecast capex. AusNet proposed $911.2 million ($2025–26) for augmentation capex. Our draft decision is to include $228.8 million for augmentation capex. This is $682.4 million or 74.9% less than what AusNet proposed. We found that: • the demand forecast was likely to be overestimated, and the significant amount of pre- and post-model adjustments, largely based on internal knowledge, lacked sufficient explanation and supporting evidence. We have applied a lower demand forecast in our assessment of demand driven augmentation capital expenditure • not all the $400.4 million proposed for the demand driven augmentation expenditure was supported. AusNet has not provided the necessary modelling for all projects, the estimated economic benefits appear high, the options analysis does not adequately consider all alternatives options or cross-reference related projects to ensure robustness, and the proposed costings are also likely to be high. We have instead included $114.6 million in capital expenditure. We require AusNet to update its demand forecasts and address our concerns in its revised proposal and acknowledge that the demand driven augmentation expenditure is likely to change • the $180.4 million proposed for connection enablement was not consistent with the current embedded generation connection framework in the NER and the economic timing of the projects was highly uncertain based on AusNet's modelling. We have not included this expenditure in our alternative estimate for augmentation • of the $146.4 million proposed for compliance and safety, the Early Fault Detection and Steady-State Voltage Compliance programs were not justified due to insufficient explanation of underlying assumptions. The REFCL Driven Augmentation program, Fall Arrest Systems and Under Frequency Load Shedding (UFLS) implementation programs are reasonable but likely to have overestimated costings. Our alternative estimate includes $91.0 million in compliance and safety capital expenditure • the $137.4 million proposed for the reliability program was not supported, due to insufficient information and justification for the preferred options for the worst served customer program and the BN11 upgrade program. Further modelling errors were identified which resulted in an overstatement of the benefits. The regional reliability allowance was also not accepted due to it not satisfying the capex criteria as it did not have a proposed program of work that could be demonstrated as prudent and efficient. We have not included this expenditure in our alternative estimate for augmentation but recognise that AusNet will need to undertake further work to address the root causes of its worse served customers. Our reasons for this are set out in Appendix A.2 (Augmentation, including the Demand Forecast).

Issue	Findings and reasons
Resilience	We have not included all of AusNet's resilience expenditure in the total forecast capex. AusNet proposed $260.9 million ($2025–26) for resilience capex. Our draft decision is to include $42.3 million for resilience capex. This consists of $21.9 million of replacement capex and $20.4 million of augmentation expenditure. This is $218.6 million or 84% less than what AusNet proposed. We found that: • the $245.9 million for network resilience had incorrectly applied the Value of Network Reliability (VNR) methodology, used high unit rates and had not considered possible cost-effective alternative options to address the stated risks • the $15.0 million for community resilience had insufficient information demonstrating that it was appropriate to recover the community hubs expenditure as a standard control service • the expenditure for standalone power systems, mobile generators and emergency response vehicles was reasonable and we have accepted these. Our reasons for this are set out in Appendix A.3 (Resilience).
Connections	We have not included all of AusNet's connections forecast in the total forecast capex. AusNet proposed $576.5 million ($2025–26) for connections capex. Our draft decision is to include $522.8 million for replacement capex. This is $53.7 million or 9.3% less than what AusNet proposed. We consider that AusNet's connections forecast for the 2026–31 period were likely to be too high. As a result, we have made a 10% reduction to the connections expenditure forecast. Consistent with our decision on AusNet's demand forecasts, our alternative estimate is a placeholder, and we require AusNet to update its demand, connection and energy consumption forecasts, and address our concerns in its revised proposal. Our reasons for this are set out in Appendix A.4.(Connections).
ICT	We have not included all of AusNet's proposed ICT forecast in the total forecast capex. AusNet proposed $386.7 million ($2025–26) for ICT capex. Our draft decision is to include $252.6 million for ICT. This is $134.1 million or 34.7% less than what AusNet proposed. We found that: • there was insufficient information provided to justify the scope and level of the proposed ICT program • there was insufficient information supporting the costs estimates and there is a high risk of an overstatement of cost • AusNet had allocated the entire cost of the ICT program to distribution services when it should allocate some costs to the transmission and gas services that AusNet provides. Our alternative estimate includes a placeholder of $27.4 million for the proposed cyber security program. We consider that AusNet has demonstrated the need for its proposed cyber security but will need to provide a detailed mapping of the risks it faces against the activities and costs in its revised proposal. Our reasons for this are set out in Appendix A.5 (ICT).

Issue	Findings and reasons
Property	We have not included all of AusNet's proposed property forecast in the total forecast capex. AusNet proposed $173.7 million ($2025–26) for property capex. Our draft decision is to include $120.5 million for property. This is $53.2 million or 30.6% less than what AusNet proposed. We found that: • the $82.0 million for the strategic depot reset program was not justified as AusNet's modelling inputs did not have supporting evidence and used common assumptions that did not consider area specific characteristics such as land value growth and improved response times. Our alternative estimate includes $49.2 million for 2 of the proposed depot investments • the $14.3 million for the South Morang training centre was not adequately supported. We consider AusNet's model risk was not sufficiently justified and inconsistent with interrelated demand driven programs. Further, AusNet had conducted limited options analysis. We have not included this project in our alternative estimate for property. Our reasons for this are set out in Appendix A.6 (Property).
Fleet	We have not included all of AusNet's proposed fleet forecast in the total forecast capex. AusNet proposed $144.2 million ($2025–26) for fleet capex. Our draft decision is to include $88.0 million for fleet. This is $56.2 million or 39.0% less than what AusNet proposed. We found that: • the $123.3 million proposed to move to an ownership model was not supported as the underpinning model had a bias to owning over leasing. Our alternative forecast of $74.6 million represents the outcome in the model that has removed this bias • the $19.9 million proposed to transition to electric vehicle was not justified as the supporting model did not consider all potential benefits and the proposed transition did not take a cost neutral approach which we consider prudent. Our alternative forecast of $12.3 million represents a cost-neutral approach to transitioning to electric vehicles. Our reasons for this are set out in Appendix A.7 (Fleet).
CER integration	We have not included all of AusNet's proposed CER integration forecast in the total forecast capex. AusNet proposed $89.5 million ($2025–26) for CER integration capex, which includes the DSO Hub, CER enablement and Supply improvement business cases. Our draft decision is to include $33.6 million for CER integration. This is $56 million or 63% less than what AusNet proposed. We found that: • the $40.4 million proposed for the DSO Hub was not justified, as AusNet's economic assessment is implausible, the options analysis is not meaningful, and the proposed scope is too broad, and costings are likely overestimated. Our alternative estimate includes $16.5 million for DSO Hub activities, including the full roll out of flexible exports • the $40.4 million for CER enablement was not justified, as AusNet's options analysis is not meaningful, and the benefits of the proposed activities are overestimated. Our alternative estimate includes $8.7 million for dynamic voltage management activities • the $8.4 million proposed for the Supply improvement program was justified. Our reasons for this are set out in Appendix A.8 (CER).

Issue	Findings and reasons
Other non-network capex,	We have included AusNet's other non-network capex forecast in the total forecast capex. AusNet proposed $4.6 million ($2025–26) in other non-network expenditure which included tools and equipment for business-as-usual operations and is below historic expenditure. We considered this expenditure to be reasonable.
Capitalised overheads	We have included $110.6 million of AusNet's capitalised overheads in the total forecast capex. This is $98.5 million (or 47.1%) less than the $209.1 million ($2025–26) in capitalised overheads proposed by AusNet. This is because capitalised overheads are an allocated portion of total forecast capex, requiring a modelling adjustment based on our alternative forecast of total capex. The adjustment to capitalised overheads reflects this impact for the capex categories for which overheads have been allocated.
Innovation	We have not included all of AusNet's proposed network innovation forecast in the total forecast capex. AusNet proposed $17.8 million ($10.2 million capex, $7.7 million opex) for the following network innovation projects: • leading-edge network modelling and data • alternative storage technologies • real time sharing of network data • CER and electrification • V2G for outage management • tariff trials • flexible demand trials for residential customers. Our draft decision is to include a placeholder of $6.5 million ($4.0 million capex, $2.4 million opex) for innovation. This is $11.3 million ($6.2 million capex, $5.3 million opex) or 63.5% less than what AusNet proposed. This placeholder is based upon our consideration that AusNet has demonstrated the prudency of two of its projects, and contingent on AusNet providing the relevant evidence of the quantitative benefits of these programs in its revised proposal: • alternative storage technologies • V2G for outage management. For the rest of the proposed programs, we found that they did not satisfy the ex-ante innovation criteria. Our reasons for this are set out in Appendix A.9 (Innovation).
Customer contributions	We have not included all of AusNet's customer contribution forecast in the total forecast capex. AusNet proposed $277.3 million in customer contributions. Our draft decision is to include $272.2 million for customer contributions. This is $5.1 million or 1.8% less than what AusNet proposed. This reduction is being largely driven by our decision to reduce the connections expenditure forecast. However, we have identified an issue with AusNet's modelled capital contributions and its proposed data centre connection. We have increased the capital contribution required from the data centre from 30% to 86.5%. Our reasons for this are set out in Appendix A.4.(Connections).
Disposals	We have included AusNet's asset disposal forecast in the total forecast capex.

Issue	Findings and reasons
Ex post review	We are required to provide a statement on whether the roll forward of the regulatory asset base (RAB) from the previous period contributes to the achievement of the capex incentive objective. The capex incentive objective is to ensure that, where the RAB is subject to adjustment in accordance with the NER, only expenditure that reasonably reflects the capex criteria is included in any increase in value of the RAB. We may exclude capex from being rolled into the RAB when a distributor has overspent the amount of capex above the forecast that does not reasonably reflect the capital expenditure criteria.[21] We have reviewed AusNet's capex performance for the 2020 to 2023–24 regulatory years 2020 to 2023–24 regulatory years. AusNet incurred total capex below its regulatory forecast for the ex-post review period. On this basis, the overspending requirement for an efficiency review of past capex is not satisfied. We are satisfied that including this actual capex in the RAB is likely to contribute towards achieving the capex incentive objective.

21 AER, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, July 2024, p. 16.

A Reasons for decision on key capex categories

This appendix sets out our assessment of key capex categories and programs/projects within AusNet's total revised capex forecast and the reasons for our decision. This appendix includes:

- replacement expenditure (A.1)
- augmentation expenditure (A.2)
- resilience (A.3)
- connections (A.4)
- information and communication technology (A.5)
- property (A.6)
- fleet (A.7)
- consumer energy resources (A.8)
- innovation allowance (A.9)

A.1 Replacement expenditure

Replacement expenditure or repex must be set at a level that allows a distributor to meet the capex criteria. Replacement can occur for a variety of reasons, including when:

- an asset fails while in service or presents a real risk of imminent failure
- a condition assessment determines that it is likely to fail soon or degrade in performance, such that it does not meet its service requirement and replacement is the most economic option[22]
- the asset does not meet the relevant jurisdictional safety regulations and can no longer be safely operated on the network
- the risk of using the asset exceeds the benefit of continuing to operate it on the network.

Most network assets will remain in efficient use for far longer than a single five-year regulatory control period (many network assets have economic lives of 50 years or more). As a result, a distributor will only need to replace a portion of its network assets in each regulatory control period.

A.1.1 AER's draft decision

We are not satisfied that AusNet's proposed $1,316.9 million (2026–31) for replacement capital expenditure would form part of a total capex forecast that reasonably reflects the capex criteria. Our draft decision includes an alternative forecast of $ 709.9 million which is

[22] A condition assessment may relate to assessment of a single asset or a population of similar assets. High-value/low-volume assets are more likely to be monitored on an individual basis, while low value/high volume assets are more likely to be considered from an asset category wide perspective.

$607.0 million or 46.1% lower than AusNet's proposal. This alternate forecast includes $21.9 million for replacement resilience expenditure, which we discuss in Appendix A.3.

A.1.2 AusNet's proposal

AusNet's has proposed $1,316.9 million in repex. This is an increase of 69.7% over current period actuals/estimates. Repex represents 37.6% of the AusNet's total capex proposal.

AusNet submits that its repex expenditure is guided primarily by a response to the risks posed to network performance and market driven pressures. It has identified deteriorating assets through inspections and risk-based modelling. AusNet states that it has used a risk-based asset management approach to maintain its current risk levels for its repex programs, excluding safety. This modelling includes the use of AusNet's Quantifying Customer Values (QCV) as a network specific value for customer reliability, similar to the AER's Values of Customer Reliability (VCR).[23]

In its repex proposal AusNet provided asset management strategies for some of its programs and included models to demonstrate how risk values contributed to replacement volume forecasts. We found these documents to provide general information and sought further details about the programs' scope, timing and cost benefit analysis conducted. Through information requests, AusNet provided additional material for its proposed repex programs but often referred back to its original models that at times would not reconcile with the provided business cases.

We also had difficulty reconciling these projects against AusNet's capex model and the Regulatory Information Notice (RIN). EMCa noted that this was partially due to AusNet reporting in different dollar values while adding contractor support costs that were apportioned to individual programs.[24] For our analysis, we have primarily relied on AusNet's capex model for our numbers and subsequent adjustments included in information request responses.

A.1.3 Reasons for decision

Based on the information before us, we were unable to determine the prudency and efficiency of a significant portion of AusNet's forecast repex.

Our assessment approach for this category uses a combination of a top-down and bottom-up approach. We first used top-down analysis, examining whole network reliability performance and outputs from our repex model. We were unable to rely on trend analysis due to not being able to reconcile AusNet's historical and forecast asset failure data. AusNet has since identified reporting errors in its forecast asset failure data and provided revised data that reflects RIN requirements. However, due to our findings from our top-down review, we have focused on a comprehensive bottom-up approach. Our review examined AusNet's:

- use of risk modelling, analysing failure forecasting to determine replacement volumes
- utilisation of its QCV and the VCR

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23 AusNet, *ASD – AusNet – EDPR 2026 – 2031 Regulatory Proposal – 31 Jan 2025*, pp. 35–36.

24 EMCa, *Report to AER on AusNet Network related expenditures and CER*, August 2025, p. 10.

- cost estimation and the inclusion of additional allowances to determine the prudency and efficiency of AusNet's proposal.

We engaged engineering consultants EMCa to review AusNet's proposed repex. As part of EMCa's assessment of AusNet's proposed replacement expenditure, it examined key repex drivers including:

- station rebuilds
- plant
- substation protection
- poles
- crossarms
- conductors
- safety
- compliance.

Our main concern relates to AusNet's accounting for risk. This includes:

- modelling inputs for specific types of risks such as unserved energy, and environment and safety, which leads to a higher than required replacement rate
- AusNet's additional adjustments in cost build ups such as including a risk allowance.

We have accepted the proposed expenditure for the following repex programs:

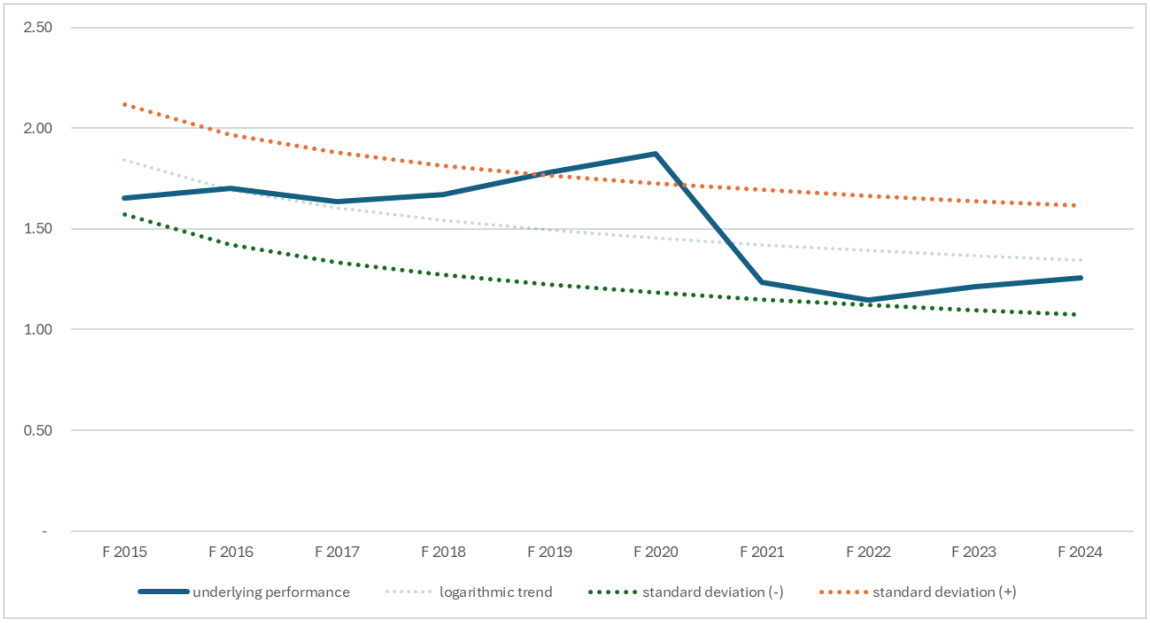
- civil infrastructure
- crossarms
- comms
- compliance
- construction insurance.

A.1.3.1 Performance

In support of its proposed repex, AusNet cites a rise in unplanned SAIFI due to asset failure as a driver to maintain reliability. Distributors and the AER use SAIFI as a metric to determine issues with supply failure and deterioration. We reviewed AusNet's SAIFI normalised performance at a whole network level and at a feeder category level to understand whether there is a deterioration in performance.

Figure A.1 shows historic SAIFI performance for the whole network over the last 10 years. While there are some trend abnormalities, which can be attributed to outages from the 2019–20 bushfires and the October 2021 and February 2024 storms, we observe an overall downward trend. On a feeder level, we found similar findings for both long and short rural feeders but note that the 2024 SAIFI values for urban feeders show an increase in outages. The increase appears to be driven by asset failures. Our analysis found that pole related asset failures were the main contributing factor to the rise. AusNet cites that this is a reflection of its ageing assets and has proposed an uplift in pole expenditure, this is discussed in A.1.3.5.

Figure A.1 Whole of Network SAIFI normalised performance from 2014/15 to 2023/24



Source: AER Annual RIN data analysis.

Overall, our analysis found that asset failures were not the main driver of SAIFI interruptions, with the main reasons being unknown, animal related or other. In the last five years, on average, animal caused outages accounted for 18% of interruptions, while the outages caused by 'other' and 'unknown' accounted for 17%. On this basis, more information about management and identification of 'other' and 'unknown' caused outages may be prudent to understand AusNet's management of its reliability levels.

A.1.3.2 Repex Modelling

As a part of our assessment, we have applied our repex model against AusNet's proposal as a top-down check. Our modelling indicates that AusNet's overall unit costs and age of replacement are not efficient when compared to the NEM median. We found unit costs for specific switchgears and underground cables to be high, whereas steel poles and services lines were found to be replaced earlier than average.

In comparison with AusNet's run of the repex model, we saw similar outcomes after merging AusNet's repex model data with our latest NEM median values. The thresholds, which are aggregated outputs that model scenarios of efficient unit costs and replacement age, were not met by AusNet's proposal data. As a result, we have focused our assessment on a bottom-up review, rather than rely on this top-down assessment.

A.1.3.3 Risk Based Modelling

To determine its replacement volumes, AusNet has developed a risk-based approach, which accounts for a third of its repex program. However, for its inspection-based approach, we found similar asset failure risk modelling used to calculate its volumes forecast. This model quantifies and multiplies the probability of failure (PoF), consequence of failure (CoF) and cost of consequences (CoC) to derive replacement volumes.

Figure A.2 AusNet's quantifying asset failure risk approach

Source: AusNet, *ASD – AusNet – EDPR 2026 – 2031 Regulatory Proposal – 31 Jan 2025*, p. 131.

While we may consider this approach adequate, we are unable to rely on outputs that are materially higher than historical observed defects without further information to explain the deviation from historical trend.

For the replacement timing, EMCa states that AusNet did not consider the optimal timing where replacement occurs when the Net Present Value (NPV) is maximised but rather opts for when the present value of future benefits exceeds the present value of future costs. This approach can be observed in models, such as AusNet's plant program, and is sensitive and reliant on the quality of the CoF and PoF calculations.[25] Demonstrations of sensitivity analysis to reinforce AusNet's calculations were not provided in its proposal.

(a) Probability of Failure

AusNet has primarily used two methodologies which are machine learning and health scores to calculate its PoF. Both then use Weibull distribution to set statistical parameters that are either sourced from industry standards or AusNet's own modelling. In cases where the PoF was calculated using AusNet's modelling, AusNet has not demonstrated how the final values have been calibrated against observed failures. For example, for its PoF modelling for automatic circuit reclosers, the cumulative probability of failure calculation resulted in materially earlier replacements than the historical failures would suggest. Similar concerns have been observed by EMCa in its review of substation related asset replacement expenditure.[26] Further information on how the data has been calibrated against observed failures would be required for us to accept the outputs provided by AusNet's modelling.

(b) Consequence of Asset Failure

The CoF includes three different types of consequence – environmental and safety risks, and customer and reputation cost of consequence. Inputs to these factors have been sourced from different governmental reports and guidance notes, whereas the customer CoF uses outage times and customer numbers against customer consumption and AusNet's QCV/VCR. We observed that these factors were often included as hard coded values, which did not explain how each input was determined. In several cases, we found these inputs to be too high across different models and through substituting values we considered more reasonable, we saw a reduction in the number of replacements required during the forecast regulatory period. Further below we provide examples of where we do not agree with the inputs used by AusNet and detail our views on AusNet's QCV against the 2024 VCR.

For AusNet's safety CoF, we found the application of its safety costs to be inconsistent with AusNet's own documentation and there was sufficient information about cases of realised safety risks to support the values attributed to assets in AusNet's modelling. We requested

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25 EMCa, *Report to AER on AusNet Network related expenditures and CER*, August 2025, p. 42.

26 EMCa, *Report to AER on AusNet Network related expenditures and CER*, August 2025, p. xiv.

more information about the specific assets its proposed to replace and was directed to its initial models. However, we did not consider this information fit for purpose.

In the case of its model for voltage transformers, we could not determine how the safety consequence score was derived. In its final output, we observed the safety CoF was multiplied further by an unmarked value that was added to the combined CoF. Based on AusNet's Asset Risk Assessment Overview, it is possible that this is the disproportionality factor. However, the values provided were materially higher that the factors in its overview. without clear information, we would require more information about how characteristics of the asset and its surroundings contributed to the safety CoF inputs to accept the values before us.

In our assessment of AusNet's environmental CoF input values, we did not have enough information to support the numbers that were included in AusNet's modelling. For example, for AusNet's neutral earthing resistors and neutral earthing devices, we could not determine how AusNet sourced its environmental CoF costs, as it was not consistent with the overview it provided as the basis of its risk modelling. We also note that its model suggests it did not take CoF into account, but this contradicts what is provided in its business case. In the resistor and earthing devices model, the cost factors are in Pounds, appearing to be sourced from the United Kingdom.

While we acknowledge AusNet has explained the reference to UK distribution networks' methodology in its approach for safety CoF, this has not been explained for environmental CoF. AusNet's model implies it is using the British values as placeholders, but AusNet's overview suggests it already had Australian dollar values for factors such as oil. We also do not consider the environmental factors that reference a different geographical location to be an effective approach, particularly for factors such as bushfires as the likelihood would be significantly different.

For its revised proposal, we require AusNet to provide more information about how it sourced its environmental CoF, clearly state how this is factored into the final output, and ensure it distinguishes the risk between natural and network bushfires where relevant.

To determine the customer CoF, AusNet has calculated the customer risk by using its hybrid QCV/VCR approach and multiplied it by zone substation and outage parameters. This is discussed more in the following section. However, specific to AusNet's risk modelling, EMCa observed that AusNet's analysis for substation related expenditure was particularly sensitive to VCR inputs. Using the AER's 2024 VCR values would subsequently result in a deferral of some projects into the next regulatory period.

(c) Value of Customer Reliability

AusNet has adopted a hybrid approach to applying the VCR to its proposal by supplementing the AER's 2023 VCR with its own in-house QCV. AusNet stated that its QCV was developed consistently with the AER's methodology but is more up to date and robust and is tailored specifically to AusNet's customers. We note the hybrid approach selected the higher values available between 2023 VCR and QCV for residential and business values for its investment analysis.

For replacement expenditure and the low voltage (LV) demand driven augmentation expenditure, AusNet applied its QCV for residential customers as it considers these values

robust and directly comparable with the AER VCR. However, for business sectors, AusNet used the 2023 AER business VCR because it viewed its own QCV as not directly comparable with the AER's approach and less robust.

For non-LV demand driven augmentation expenditure and reliability programs (discussed in Appendix A.2), AusNet used the 2023 AER VCR to highlight that the use of the standard VCR would justify its investments regardless of the QCV.[27]

We have assessed the reasonableness of AusNet's position on its QCV and its hybrid approach to calculate the value of reliability.

AusNet states that its QCV was developed by replicating the AER VCR methodology. We have reviewed the methodology and consider that AusNet's approach differs from the one used by the AER in several aspects, including:

- the survey design and execution, including the order, number, and phrasing of questions
- the process for selecting survey respondents and distributing the survey
- the application of weighting to survey data
- adopted statistical modelling techniques
- approach to the calculation of unserved energy
- approach to outage probabilities calculations, including different input data.

AusNet did not evaluate the potential impact of the above methodological differences on the resulting QCV estimates. Nor did it explain how these modifications would align the methodology with the VCR objective. Additionally, our review identified several concerns regarding AusNet's calculations and the quality assurance processes applied.

Regarding AusNet's claim that its QCV estimates are more up to date, we note the 2024 AER VCR estimates are more recent. AusNet's QCV surveys were conducted in December 2023 and January 2024, whereas the AER surveys that informed the 2024 VCR were carried out in September–October 2024. We acknowledge that there is a timing issue of when the 2024 VCRs were published and the submission of the proposal, however, the AER's updated 2023 VCR was available and was still appropriate to use in the preparation of the proposal.

Moreover, the AER used AEMO's Market Settlement and Transfer Solutions data for the 2023-24 financial year to inform the unserved energy estimation, while AusNet's unserved energy estimates appear to rely on energy consumption data for the period from October 2021 to September 2022.

AusNet further argued that its QCV is more specific to AusNet because it is based on surveys of AusNet customers and actual load data from AusNet smart meters. In comparison, the AER's residential VCR is based on a broader customer base segmented by climate zone and remoteness. We note that the climate and remoteness are strong drivers for the VCR, meaning customers in the same climate segment are likely to share similar reliability preferences. On the contrary, being an AusNet customer, rather than a customer of another distribution network, is less likely to strongly influence individual reliability preferences. AusNet did not provide sufficient evidence to support its alternative view.

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[27] AusNet, *ASD - AusNet - EDPR 2026 - 2031 Regulatory Proposal -31 Jan 2025,* p. 103.

Additionally, it is possible to use AER's published VCR to calculate a tailored VCR for AusNet customers based on their specific climate zone and remoteness.

AusNet also referred to its large residential survey sample size (3,500 customers in total) to suggest that its QCV is more 'robust' than the corresponding AER residential VCR. However, robustness refers to the stability of an estimate when underlying data or assumptions change. A large sample size alone does not necessarily make an estimate robust.

We are of the view that AusNet did not adequately explain how a larger sample size contributes to the 'robustness' of its estimate and how either factor may relate to the VCR objective. We also note individual sample sizes for each residential QCV customer segment (those connected to urban, rural short and rural long feeders) are of similar order of magnitude as the relevant residential AER VCR segment sample sizes.

We do not accept AusNet's hybrid approach to VCR, as it has not provided sufficient justification that its QCV estimates are superior to the AER VCR. Therefore, in its revised proposal, we require AusNet to apply the 2024 AER VCR, which reflects the reliability preferences of the relevant mix of customers affected by each option considered.

(d) Recommendations – risk-based modelling

Our analysis of AusNet's risk modelling has found that a significant portion of its proposal could be improved by more robust information. We have previously sought more information about AusNet's business cases but found contextual information was not provided. For its revised proposal, we would need to understand what sensitivity analysis has taken place for each project where applicable. Information about options considered that are not simply 'all or nothing' would also demonstrate AusNet's robust review of steps taken.

For its risk modelling, focusing on the proposed replacements and supporting material for the timing of the replacement is crucial to demonstrate the prudency of a project. However, this analysis needs to be calibrated against historical data to ensure the modelled risk is not overstated. For inputs that directly feed into the NPV of the replaced asset, evidence that AusNet has used values that reflect the observed behaviour and the characteristics of the asset is required to ensure efficiency.

Lastly, for consistency and data quality issues we encountered in our assessment, we recommend AusNet ensure that data from models and businesses cases are consistent with inputs to the capex model and all data submitted is in line with the requirements outlined by our RIN. Our application note on asset replacement also provides additional information on calculating optimal timing for replacements that may be beneficial as a framework for modelling that would be consistent and already tested by the AER.[28]

A.1.3.4 Cost Estimation

AusNet primarily uses two approaches to derive its unit costs, both of which AusNet states are not reliant on RIN data. For inspection-based programs, AusNet uses risk adjusted rates provided by its service provider, with additional costs added for materials. For all other replacement programs, AusNet refers to actual costs of recently delivered similar projects.

We sought out more information about the components of AusNet's unit costs and found line items that were higher than industry standard and instances where blanket additional

[28] AER, *Industry practice application note: Asset replacement planning*, July 2024.

percentage values were applied. This approach does not demonstrate efficiency, as information about how these percentage values address overlapping projects is not evident. One reoccurring factor we observed, was AusNet use of a risk allowance. The following section details why we do not accept this approach and have adjusted our alternate forecast to reflect our view.

(a) Contingency risk allowances

AusNet has applied a blanket 7–10% risk allowance and management reserve to a range of proposed capex projects to account for inherent and contingent risks. This uplift reflects that the unit rates and project cost estimates used to develop the capex forecast for bulk projects and complex projects do not include overheads, finance charges or the management reserve.[29] The additional allowance is intended to cover 'uncertainty' associated with the project management process.

AusNet advised us that the risk allowance or management reserve were determined as a percentage of total direct costs, using various approaches, including Monte Carlo analysis, as well as other methods for which the basis was not clearly explained. These were applied across a range of different capex programs and projects.[30]

As a general principle, we only accept risk allowances in limited circumstances that are specific to a particular project or program. For example, risks that relate to a realistic latent condition with the site(s), or specific risks that are reasonably likely to arise that are beyond the control of the Networks Service Provider. In such cases we review the nature of each type of risk as well as the basis of the calculation of the estimated risk cost(s). We do not accept a general contingency allowance, and this is reflected in a number of recent decisions, for example, Project Energy Connect Contingent Project decision 2020,[31] Power and Water Corporation distribution determination 2024–29[32] and Essential Energy Bushfire Reclassification Contingent Project decision 2025.[33] We did not accept proposals to apply a non-specific percentage-based risk allowance across capex programs and projects.

AusNet referenced the AusNet transmission determination for the 2022–2027 regulatory control period, in which a 7.5% allowance was included for major substation replacement expenditure.[34] However, regardless of this decision, AusNet needs to make a case for the application of specific risk allowances to programs and projects in line with the general principle outline above.

We assessed the reasonableness of the proposed approach and sought further information to clarify the specific risks AusNet aims to address, and the basis for its calculations. Based on the information provided by AusNet, we do not consider that the contingency risk

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29 AusNet, *Response to IR#042 - Risk allowances applied to capex/opex forecasts*, p. 2.

30 AusNet, *Response to IR#042 - Risk allowances applied to capex/opex forecasts*, p. 3.

31 AER, *Preliminary Position - ElectraNet - Project EnergyConnect Contingent Project - December 2020*, 18 December 2020, pp 22–23.

32 AER, *Final Decision Attachment 5 - Capital expenditure - PWC - 2024–29 Distribution revenue proposal - April 2024,* 30 April 2024, p. 15.

33 AER, *AER decision - Essential Energy bushfire risk reclassification contingent project*, 17 June 2025, p. 14.

34 AER, *Final Decision - AusNet Services transmission 2022-27 - Attachment 5 - Capital expenditure,* 28 January 2022, p. 18.

allowances applied broadly to various capex programs and projects are for specific risks that are reasonably likely to arise and are beyond the control of AusNet, such as environment or condition-based risks.

We consider that AusNet has significant control over its capital program. Further, the additional costs that AusNet seeks to include within the contingency risk allowance have already been addressed through other components of the regulatory process. For example, the AER's SCS Capex Model[35] accounts for these costs through capitalised overheads and cost escalations for labour and materials. In addition, the allowed revenue includes an allowance for financing charges. As a result, these costs should not be incorporated into the unit cost build-up.

AusNet's contract with its service provider Zinfra should already account for project risk. Further, project delivery risks are within AusNet's control, who are best placed to manage this rather than customers. We consider that including a unit rate risk adjustment would result in double counting or customers paying a premium for costs that may not eventuate.

We do not accept AusNet's proposed $104.4 million ($2025–26) general contingency risk allowances included across various capital expenditure estimates and unit rates. AusNet should provide adequate justification and evidence for any proposed risk allowance, demonstrating that it relates to a specific, identifiable risk associated with a particular project, consistent with the principles outlined in this section.

A.1.3.5 Repex alternate forecast

Our alternative forecasts are a mix of bottom-up and top-down approaches reflecting the information before us. In cases where we have been unable to use AusNet's models to do a bottom-up forecast, we use a top-down approach that focuses on historical expenditure and volumes as a baseline. Due to insufficient historical data and lack of supporting material, we have been unable to accept certain projects until more information about the project's efficiency and prudency is provided.

In our bottom-up approach to developing our alternate forecast for specific projects, we adjusted the unit costs and volumes to reflect what we found to be efficient based on the information available to us. This includes incorporating updated information provided by AusNet from its information request responses. Adjustments in our draft decision include the removal of risk allowance and other related overheads and adjusting model inputs to reduce volumes.

In Table A.1, we provide a summary of our alternate forecast by program and supporting information detailing our approach for each programs' adjustments.

Table A.1 Repex program alternate forecast ($2025–26, million)[36]

Program	Proposed Capex	Alternate estimate	Difference	Reasoning
Poles	212.5	155.3	-57.2 (-26.9%)	EMCa's analysis found AusNet's poles program to not be justified.

[35] AusNet, *ASD – AusNet EDPR 2026–31 SCS Capex Model – 310125 – PUBLIC.*

[36] EMCa, *Report to AER on AusNet Network related expenditures and CER*, August 2025, pp. 27–82.

Program	Proposed Capex	Alternate estimate	Difference	Reasoning
				While EMCa notes that pole replacements identified through inspections are likely to be reasonable, it did not agree with the inclusion of AusNet's streetlight project as SCS, and it is more appropriate under Alternative Control Services (ACS). We have subsequently removed the project from the forecast. The economic modelling for poles misaligns with other information provided by AusNet. For example, EMCa also highlighted that there was insufficient information for pole PoF to understand how staking has been considered in AusNet's proposal. We also found AusNet's staking rate to be lower than other businesses. We Fhave incorporated EMCa's findings into our alternate estimate. The new estimate encourages reinforcement rather than early replacement by allocating additional allowance to staking projects.
Switches and other	208.5	116.2	-92.3 (-44.3%)	We do not consider AusNet's switches program efficient and do not have the information needed to approve its prudency. We found the modelling for this program often had a high failure rate, where PoF values were higher than what historical data would suggest. Further review of its CoF values appeared high for projects, such as the distribution substation and service cables. Unit costs for projects, such as fuses has been adjusted to reflect historical rates, as there was insufficient information to justify the proposed cost and additional risk allowance. For our alternate forecast, we have removed the risk allowance and adjusted volumes to be more in line with historical trend.
Conductor	127.1	74.2	-52.9 (-41.6%)	EMCa's analysis of AusNet's conductor program found the program was not justified. The Weibull parameters set by AusNet did not appear to be based on the asset's natural age or condition. Reasoning for any difference has not been provided. Consequence values also appeared to be overestimated due to higher than expected environmental and customer CoF values. Lack of information about how these inputs fed into the model and further generalisation of conductors at different lengths, contributed to a reduction in the program's forecast. The alternate forecast reflects a reduction in volumes to reflect historical trend.
Station rebuild	103.3	74.9	-28.4 (-27.5%)	AusNet's station rebuild program expenditure is higher than required. The application of the risk allowance for the cost estimates has not been adequately justified and data is inconsistent with the capex included in the regulatory proposal.

Program	Proposed Capex	Alternate estimate	Difference	Reasoning
				AusNet's post modelling adjustments in which it deferred its timing demonstrates it may have issues with deliverability of its station rebuilds in the forecast regulatory period. This is supported by AusNet's post modelling adjustments for its economic modelling provided at EMCa's request. The post model adjustments pushed all but one project in the latter end of the forecast regulatory period. As a result, we have incorporated EMCa's findings and adjusted our alternate forecast to reflect the timing and excluded the Newmeralla Refurbishment from our forecast as we do not have enough information to support its deliverability in the 2026─31 regulatory period. Projects that have satisfied previous RIT-D assessments, such as the Traralgon Zone Substation rebuild stage 1 and the Warragul Zone Substation rebuild have not been amended, with the exclusion of updates provided by AusNet and other modelling adjustments.
Safety	97.2	68.1	-29.1 (-29.9%)	This program is reasonable with the exception of its proactive projects. AusNet's uplift in fuses volumes was not justified. AusNet's claim that fire starts have been decreasing also seems to contradict findings from the Energy Safe Victoria (ESV) that they are increasing. Additionally, risk appeared to be unjustified with no link to observed performance. We reduced unit rates for fuses and the forecast for single wire earth return reinforcements was adjusted to reflect the current regulatory period volumes.
Plant	80.2	28.7	-51.6 (-64.3%)	EMCa states AusNet's plant program is overestimated. EMCa notes that while its risk calculation methodology is reasonable, its modelling methods have led to an overstatement of replacement volumes. Contributing to this is AusNet's decision to set the project timing (investment year) as the nominated time when the present value of the future benefits exceeds the present value of future costs. However, this leads to a bias in earlier replacements as any negative returns are offset by forecast positive returns in the short term. Inputs in the risk modelling also appeared to be overestimated. EMCa observed that using more reasonable values in its CoF modelling would defer some projects beyond the next regulatory period. Cases of high unit rates were identified by EMCa that included an unjustified risk allowance as similar discrete projects already came under the general P50 estimated costs. We have amended unit rates to exclude the risk allowance and better reflect previous discrete project costs. We have also adjusted the timing of certain projects to reflect reasonable CoF inputs.

Program	Proposed Capex	Alternate estimate	Difference	Reasoning
Substation protection	75.5	34.9	-40.5 (-53.7%)	EMCa states that this program is likely overestimated. Similarly to AusNet's plant program, unit costs appear high and modelling inputs are contributing to higher than required replacements. Our alternate forecast excludes AusNet's risk allowance and addresses modelling issues.
Crossarms	46.4	46.4	-	We consider this program to be reasonable and adjustments in our capex model are reflective of updates and modelling adjustments since the initial proposal.
Secondary and protection	40.3	29.2	-11.0 (-27.4%)	EMCa found this program to be overestimated. In its report, EMCa cited issues with pre-existing delays, an immature cost estimate and benefits, and NPV outputs that do not appear justified or accurate.
Environmental	29.5	7.3	-22.3 (-75.4%)	Our alternative forecast acknowledges that there is a baseline need for oil control, however, we were unable to accept the program in full due to the absence of supporting information. Our alternative is based on historical expenditure.
Infrastructure security	26.1	15.6	-10.5 (-40.1%)	Our alternative forecast acknowledges that there is a baseline need for security upgrades. However, we were unable to accept the program in full due to the absence of supporting information about the nature of the proposed projects. Our alternative is based on the amount we consider prudent and efficient to support infrastructure security.
Metering	24.7	8.6	-16.1 (-65.2%)	Alternate estimate reflects mechanical adjustments to metering under ACS. Information about the reasoning for the reduced forecast is provided in Attachment 14 of our draft decision.
Compliance	17.3	17.3	-	We consider this program to be reasonable and adjustments in our capex model are reflective of updates and modelling adjustments since the initial proposal.
Comms	7.3	7.3	-	We consider this program to be reasonable and adjustments in our capex model are reflective of updates and modelling adjustments since the initial proposal.
Civil infrastructure	2.5	2.5	-	We consider this program to be reasonable and adjustments in our capex model are reflective of updates and modelling adjustments since the initial proposal.
Construction insurance	1.5	1.5	-	We consider this program to be reasonable and adjustments in our capex model are reflective of updates and modelling adjustments since the initial proposal.
TOTAL	**1099.7**	**687.9**	**-411.8 (-37.4%)**	

Source: AusNet, *IR044 Repex workbook_20250707 – No links – CONF*, July 2025 and AusNet, *VIC DNSP CAPEX adjustment workings*, July 2025.

A.2 Augmentation expenditure

Augmentation is capital expenditure required to build or upgrade the network to address system constraints driven by changes in demand and network utilisation to enable the network service provider to comply with quality, safety, reliability, security of supply and greenhouse gas emission reduction target requirements. AusNet's augmentation consists of expenditure mainly on demand driven augmentation capital expenditure, connection enablement, reliability, compliance and safety. It also includes expenditure related to resilience and the innovation allowance.

A.2.1 AER's draft decision

We are not satisfied that AusNet's proposed $911.2 million ($2025–26) for augmentation capital expenditure would form part of a total capex forecast that reasonably reflects the capex criteria. Our draft decision includes an alternative forecast of $228.8 million which is $682.4 million or 74.9% lower than AusNet's proposal.

Most of the reduction, $285.8 million, relates to demand driven projects. A further $180.4 million is associated with connection enablement, while $137.4 million is tied to reliability programs. The remaining reductions relate to compliance and safety ($55.4 million) and resilience ($23.4 million). Resilience is discussed in appendix A.3.

We have applied reductions to the majority of AusNet's proposed capital expenditure. For some projects where we are otherwise satisfied, the reductions relate specifically to the removal of the proposed contingency risk allowances, as discussed in section 1.3.4(a) above.

For demand driven augmentation, we are concerned that AusNet's demand forecast may be overestimated. This means there are potentially more projects than necessary and some of these could be deferred to future regulatory periods. In forming our alternative estimates, we have adopted a low case demand forecast and assessed the prudency of the proposed projects. We require AusNet to update its demand forecast using the latest information, such as AEMO's July 2025 Inputs, Assumptions and Scenarios Report (IASR), and to provide additional evidence supporting the reasonableness of its demand forecasts and associated augmentation expenditure in its revised proposal.

Regarding the connection enablement programs, we are not satisfied with the proposed expenditure, as it does not align with the embedded generator connections framework for distribution under the NER and the market benefits on the projects are overestimated, which makes the timing uncertain.

For reliability related augmentation expenditure, we are not satisfied that AusNet has demonstrated the program is consistent with the capital expenditure criteria, or that it has provided adequate justifications and supporting evidence to show that proposed investments are prudent and efficient. In its revised proposal, we require AusNet to undertake further analysis to identify the root causes of outages and explore more efficient options to address reliability issues and demonstrate the optimal timing of the proposed investments. Additionally, AusNet has not provided any relevant supporting material for its proposed regional reliability allowance.

We are also not satisfied that the proposed Compliance and Safety programs, especially the Early Fault Detection and Steady-State Voltage Compliance programs, have been sufficiently justified. We require AusNet to consider all available options and to provide clear documentation that explains and supports its justification.

A.2.2 AusNet's proposal

AusNet proposed $911.2 million ($2025–26) augmentation expenditure. This is an increase of 150% over the actual/estimated augmentation expenditure in the current period. Augmentation expenditure represents 23.9% of the proposed capex.

AusNet's augmentation expenditure includes the following key components that we have considered:[37]

- demand driven augmentation expenditure ($400.4 million)
- connection enablement ($180.4 million)
- compliance and safety ($146.4 million), this includes compliance, REFCL compliance and safety related capex
- reliability improvement ($137.4 million)
- resilience ($42.6 million), this is discussed in appendix A.3
- innovation ($2.3 million), this is discussed in appendix A.9.

Demand Driven Augmentation Expenditure

AusNet has proposed a $400.4 million ($2025–26) investment for demand driven augmentation expenditure to meet growth in customer numbers and the demand for energy. It is primarily focussed on upgrading assets to meet demand and investments driven by electrification of homes and transport.

The proposed capital works comprises a range of programs and projects to extend or upgrade the low voltage networks, new zone substations, 22kV distribution feeders, 66kV loops, feeders and transformers, as well as a seasonal readiness program for both summer and winter.

The key components of the expenditure are as follows:

- $138.5 million of upgrades in the low voltage network to manage forecasted constraints resulting from electrification of gas and the uptake of electric vehicles (EVs)
- $102.7 million to build 2 new zone substations at Wollert and Pakenham South, addressing the risk of expected unserved energy in these areas
- $122.7 million to address constraints across multiple feeders within its sub-transmission network and stations, covering several programs:
  - $69.4 million to augment 2 x 66kV loops in Eastern Cranbourne and East Gippsland

[37] AusNet also included several other components in its augmentation proposal. These include resilience ($42.6 million), which is discussed in appendix A.3 below; an augmentation related innovation fund ($2.3 million); and construction insurance ($1.8 million).

  - $40.7 million to install 3 new 22kV distribution feeders
  - $12.6 million on a new transformer at Wonthaggi
- $30.4 million for feeder augmentation to support customer growth
- $6.0 million to prepare the high voltage network for the expected peak demand periods during summer (November to March) and winter (May to August) throughout the 2027–30 regulatory control period.

AusNet's maximum demand forecasts are based on an in-house model developed using forecasting methodology from Monash University (2015). It relies on data from AEMO's draft 2024 Inputs, Assumptions and Scenarios Report (IASR), released in December 2023, which includes Customer Energy Resource (CER) uptake and EV profiles, as well as data from Victorian In Future 2023. Additionally, AusNet has made further block load adjustments[38] to the forecast generated by its model.

Connection Enablement

AusNet has proposed $180.4 million ($2025–26) in large renewables enablement expenditure to unlock capacity in its 66kV distribution network to enable more renewable generation and storage. This is a new driver compared to the current 2021–26 regulatory period.

AusNet consider this is required in response to:[39]

- the Victorian government's legislated targets for renewable generation and emissions reductions
- strong demand for renewable generation in its network (growth in large generator enquiries and the broader national drivers for increased renewable generation, as outlined in AEMO's Integrated System Plan)
- existing network limitations, which restrict the available capacity to accommodate large renewable generators
- the changing role of distribution networks in unlocking more renewable generation
- customer and stakeholder feedback.

Compliance and Safety

AusNet's $146.4 million proposal includes a range of compliance and safety programs. Compliance programs include $76.5 million for REFCL compliance, $26.9 million for the Steady-State Voltage Compliance Program, and $20.7 million for implementing UFLS to enhance system security. The safety programs include $14.5 million for early fault and

38 Block loads are step changes occurring over the forecast period to the historical trend in demand.

39 AusNet, *ASD – AusNet – EDPR 2026 – 2031 Regulatory Proposal – 31 Jan 2025*, p. 169.

broken conductor detection in high-consequence areas, and $7.9 million for the installation of fall arrest systems.

Reliability Improvements

AusNet has proposed $137.4 million on network upgrades to improve reliability for some of its worst served customers.

AusNet proposes three reliability programs:

- regional reliability allowance, targeting poor reliability outcomes for regional customers ($88.9 million)
- worst served feeders program, targeting the ten worst performing feeders ($23.7 million)
- upgrade BN11, to improve outcomes for 4,782 customers in Euroa and surrounding regions in Victoria ($24.8 million).

The regional reliability allowance is to address poor reliability for regional consumers that experience worse reliability than the average of the worst served feeders in AusNet's network. Specific projects are not assigned to this allowance. AusNet proposes the allowance will operate as follows:

- projects will be identified and defined during the regulatory period, in close collaboration with AusNet's Customer Consultative Committee
- operate on a 'use it or lose it' basis
- exclude funding through the Service Target Performance Incentive Scheme (STPIS), Capital Expenditure Sharing Scheme (CESS) and Efficiency Benefit Sharing Scheme (EBSS).

The worst served feeder program aims to improve reliability for the ten worst performing feeders in areas such as King Lake, Mansfield and Woori Yallock. AusNet proposes that reliability expenditure via this program will provide more equitable reliability outcomes across AusNet's customer base.

AusNet's 'Upgrade BN11' is an investment to resolve a summer demand constraint due to peak tourism, including upstream REFCL activations causing false outages for customers on BN11, and a high risk of outages due to the topography of the line and environmental conditions.

A.2.3 Reason for draft decision

We have not accepted the majority of the proposed augmentation expenditure. In our assessment, AusNet's demand forecasts are higher than can be justified on the information available, resulting in some of the proposed projects being deferred to the next regulatory period. Furthermore, we are not satisfied that AusNet has provided adequate supporting evidence, modelling, or options analysis to demonstrate that the expenditure is prudent and efficient. As outlined in section 1.3.4 (a), we have also removed the proposed contingency risk allowances.

In assessing AusNet's demand forecast and augmentation expenditure, we have taken stakeholder submissions into account. Notably, the Victorian Government[40] observed that the proposal, driven by a forecast increase in electricity demand, would lead to an increase in the regulated asset base, ultimately impacting electricity bills. It emphasised the importance of AER scrutiny over both the demand forecasts and the delivery of associated commitments throughout the regulatory period.

Our assessment on each of these is set out below.

A.2.3.1 Demand Driven Augmentation Expenditure

AusNet's proposed demand driven augmentation expenditure is based on demand forecasts produced using its internally developed forecasting model and additional post-modelling adjustments.

In the section below, we discuss each component in more detail.

(a) Demand Forecast

Maximum demand forecasts are fundamental to a distributor's forecast capex and opex, and to our assessment of that forecast expenditure. This is because we must determine whether the capex and opex forecasts reasonably reflect a realistic expectation of forecast demand for services.[41] Reasonable demand forecasts based on the most current information are important inputs to ensuring efficient levels of investment in the network.

AusNet developed its maximum demand forecasts using an in-house model and engaged the Centre for International Economics (CIE) to review its forecasting methodology. The demand forecast comprises both modelled components and post-model adjustments.

The modelled forecasts were based on data from AEMO's draft 2024 IASR released in December 2023 and Victoria In Future 2023. However, the draft IASR was outdated, as AEMO released its final 2024 IASR in August 2024, well before AusNet submitted its proposal. This final report was used by other Victorian DNSPs. In addition, AusNet made further post-modelling adjustments to the forecast generated by its model.

We assessed the methodologies and assumptions underpinning the demand forecast, as well as the reasonableness of AusNet's post-modelling adjustments. We have based our assessment on AusNet's proposal, additional information provided by AusNet through information requests and workshops.[42] We engaged Baringa to review AusNet's demand forecast. Overall, we consider AusNet's demand forecast is likely to be overestimated based on AEMO's draft 2024 IASR.

Baringa considers AusNet's forecasting approach to be generally reasonable and easy to follow in terms of its methodologies and assumptions. However, there are several areas where the methodology could be strengthened to improve accuracy and transparency.[43]

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40 Hon. Lily D'Ambrosio MP, *Submission – Victorian electricity distribution proposals 2026-31*, May 2025.

41 NER, clauses 6.5.6(c)(3) and 6.5.7(c)(1)(iii).

42 On-site workshop at AusNet's office with Baringa on 17 April 2025.

43 Baringa, *Report to AER on AusNet Demand Forecast*, July 2025, p. 17.

One key limitation is the exclusion of energy efficiency impacts[44] from the demand forecast, with little rationale provided for this decision. Given expected changes in dwelling types and technology advancements, we would anticipate some downward impact on demand due to increased energy efficiency. Notably, AusNet's independent consultant, the CIE,[45] also recommended that energy efficiency impacts be considered. Similarly, the forecast does not explicitly account for behind-the-meter battery uptake,[46] which is also likely to have a moderating effect on maximum demand. These omissions could result in an overestimation of future demand.

We also note AusNet's forecast for CER growth does not consider spatial technological saturation or demographic differences.[47] The forecast assumes a uniform state-wide growth rate, which may not be appropriate for areas that already have high CER penetration. Growth in these regions is likely to slow due to physical and technical limitations, making it increasingly difficult to sustain historical growth rates. Without adjusting for this, the forecast may overstate CER uptake in these areas.

In addition to improving the forecasting methodology, it is essential that AusNet uses the most up-to-date data available. AusNet will need to revise its forecast using AEMO's Final 2025 IASR, released on 31 July 2025.[48] Additionally, the historical network data currently only extends to March 31, 2024, and should be updated through to March 31, 2025,[49] to reflect the latest trends and ensure consistency in the revised proposal.

We are also concerned about AusNet's post-model adjustments, which increase demand beyond the levels produced by its model without sufficient justification.[50] AusNet's forecasting methodology includes manual adjustments for electrification and block loads,[51] applied after the modelling process is complete. While we consider the block load adjustments appear broadly reasonable, as they are limited to committed new large connections and are net of forecast organic demand growth, this approach may still overstate demand at the more aggregated levels, particularly at the system level. This is because the approach to removing only net growth may fail to properly account for the net effect of broader demand drivers including rising electricity prices, energy efficiency and demand management across the existing broader customer base. This is particularly the case at higher combined network levels, where the larger and more diverse group of customers across a wider area tend to balance out the demand increases from new customers, reducing the overall impact of new large connections. As a result, the system level forecast could be too high. We are also concerned about the lack of transparency and the degree of subjectivity in the manual adjustments both pre and post modelling. For example, AusNet applied manual adjustment to Victoria In Future growth data based on its own views and used internal engineering judgment to identify block load overlaps, which cannot be independently verified. Similar

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44 Baringa, *Report to AER on AusNet Demand Forecast*, July 2025, p. 6.

45 The CIE, *Appendix 4B Demand forecasting methodology review*, 31 Jan 2025.

46 Baringa, *Report to AER on AusNet Demand Forecast*, July 2025, p. 6.

47 Baringa, *Report to AER on AusNet Demand Forecast*, July 2025, p. 7.

48 Baringa, *Report to AER on AusNet Demand Forecast*, July 2025, p. 8.

49 Baringa, *Report to AER on AusNet Demand Forecast*, July 2025, p. 8.

50 Baringa, *Report to AER on AusNet Demand Forecast*, July 2025, p. 33.

51 AusNet manually added block loads on top of the zone substation and feeder operational demand forecasts.

issues arise with other adjustments that rely heavily on local knowledge or internal judgement, without adequate supporting evidence. This lack of clarity makes it difficult to reconcile and validate data during the assessment process.

To improve transparency and confidence in the forecasts, Baringa recommended that 'AusNet provide greater transparency and justification for where, when, why and how much they have departed from their model forecasts and have applied post-model adjustments to derive the local demand forecasts used to justify their augex business cases. Different inclusion criteria for block load adjustments at different network levels should ensure no duplication between the baseline trend and new connection adjustment and address any overestimation of demand at the system level'.[52] We require AusNet to address this in the revised proposal.

AusNet should demonstrate that block load adjustments are not duplicated between baseline trends and new connections across different network levels. This requires clearly defined and differentiated inclusion criteria for block load adjustments at each network level to avoid overlap and mitigate the risk of demand overestimation. We require AusNet to reconcile the system-level and spatial-level forecasts to ensure consistency, rigour, and validity.

While we are open to AusNet's local knowledge and acknowledge that such insights can add value, we require a clear objective and well documented evidence to substantiate any manual adjustments. This will enhance the transparency of the forecasting process and provide greater confidence in the demand forecasts used to justify network augmentation.

In the revised proposal, we require AusNet to update its demand forecasting using the latest available information and address the following:

- update the demand forecast using the latest available data from AEMO's final 2025 IASR, released on 31 July 2025
- update the historical network data up to March 31, 2025
- provide greater transparency and justification for any departures from input data and modelled forecasts – all adjustments need to be independently verifiable.
- incorporate the impact of energy efficiency over time in the demand forecast and if this is not included, AusNet must clearly explain the rationale for its exclusion
- revise the approach for spatially disaggregating EV and PV growth accounting for technological limitations at each zone substation or incorporate relevant demographic data
- include behind the meter battery energy storage systems in the demand forecast and if these are excluded, AusNet must provide a clear justification
- perform a reconciliation between system-level and spatial-level forecasts to demonstrate consistency, rigour and validity of both forecasts.

[52] Baringa, *Report to AER on AusNet Demand Forecast*, July 2025, p. 9.

(b) Demand Driven Augmentation Expenditure

AusNet has proposed demand driven augmentation expenditure, which it has linked to forecast demand growth.[53] Our assessment and draft decision on the demand forecast is set out above. In the following section, we discuss our assessment of AusNet's proposed demand driven augmentation expenditure.

We have based our assessment on AusNet's proposal, additional information provided by AusNet through information requests and workshops[54] and submissions from stakeholders. Further, EMCa was engaged to undertake a technical review on most of AusNet's demand driven augmentation expenditure requirements based on AusNet's proposed demand forecast.

We have reviewed AusNet's expenditure forecasting methodologies and assessed the robustness of its demand driven augmentation expenditure forecast. Based on the information provided, we consider the proposed expenditure to be overestimated. EMCa has identified instances where economic benefits and project costs appear overestimated, with the analysis relying heavily on input assumptions that are not always well supported.[55] In addition, AusNet has not consistently applied the AER's expenditure assessment guidance to determine the optimal investment timing of the proposed projects using the annualised cost and annual risk/benefit analysis.[56] In some cases, the forecast lacks robustness without cross-referencing other related projects and supporting evidence that undermines the credibility of its analysis.[57] This has led to an overestimated demand driven augmentation expenditure proposal.

We hold similar concerns to those of EMCa regarding the quality of AusNet's proposal. We consider that AusNet has not fully explored all options and that its economic analysis is biased toward higher cost investment options. We also consider AusNet's unit rates to be excessive. For example, in the 'Summer/Winter readiness' program, we requested a detailed cost break down from AusNet. Based on its response, we are not satisfied that the cost estimates reflect a methodology that demonstrates high productivity and efficiency. We are concerned that this costing approach may be applied broadly across other programs and capex categories.

AusNet's models do not allow for interactive sensitivity analysis of the demand forecast to generate alternative augmentation expenditure outcomes. Based on Baringa's advice that the demand forecast may be overestimated, we have applied AusNet's 'low case scenario' (10% adjustment) to augmentation expenditure where possible, to assess the impact of varying demand on augmentation expenditure, both in terms of NPV and optimal timing.

With respect to VCR, AusNet has adopted a mixed approach. Some projects appear to be based on a combination of the QCV and the AER's 2023 VCR values, while others apply a weighted approach that also incorporates results from AusNet's own QCV survey. We have assessed the impact of applying the AER's 2024 VCR values AER's VNR calculation

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53 AusNet Services, *Electricity Distribution Price Review: 2026-31 Regulatory Proposal,* Jan 2025, p. 113.

54 On-site workshop at AusNet's office with EMCa on 2 – 4 April 2025.

55 EMCa, *Report to AER on AusNet Network related expenditures and CER*, August 2025, p. xiii.

56 EMCa, *Report to AER on AusNet Network related expenditures and CER*, August 2025, pp. 16–17.

57 EMCa, *Report to AER on AusNet Network related expenditures and CER*, August 2025, p. 148.

methodology, and while it did reduce the NPV results materially, the results remain positive for demand driven augmentation expenditure. Table A.2 below summarises our draft decision for AusNet's demand driven augmentation expenditure.

Table A.2 Summary of AER's draft decision for demand driven augmentation expenditure ($2025–26, million)

Projects	AusNet Proposal	AER's Draft Decision	Reasons
LV Augex (Electrification & Flexible Services)	138.5	-	The project lacks adequately justification including insufficient analysis of potential overlaps with other proposed projects, overestimated economic benefits, and inconsistencies between cost benefit analysis assumptions and recorded data, making the analysis unreliable and unsuitable to support the proposed investment.
New Pakenham South ZSS	56.5	50.2	We consider the proposed investment to be reasonable. Our alternative estimate reflects the removal of the contingency risk allowance.
New Wollert ZSS	46.2	43.1	We consider the proposed investment to be reasonable. Our alternative estimate reflects the removal of the contingency risk allowance.
Augment Eastern Cranbourne 66kV Loop	38.8	-	We consider the project to be reasonable. However, its timing is sensitive to demand. AusNet has not provided the demand forecast model. We are unable to assess the project's timing under a lower demand scenario. Using the Augment East Gippsland 66kV Loop model as a proxy for this project, a lower demand forecast will result in the project likely to be deferred by approximately 2 to 3 years, i.e.2031 or 2032, placing it outside the regulatory period.
Augment East Gippsland 66kV Loop	30.6	-	We consider the project to be reasonable. However, its timing is sensitive to small variations in demand. Under a lower demand forecast, the project is likely to be deferred by approximately 3 years, i.e.2032, placing it outside the regulatory period.
Feeder augmentation - customer growth	30.4	-	This project is predominately connection focused rather than demand driven based on the limited information from AusNet and should be included as part of the connection proposal. There is no evidence to suggest that this has not been covered within its connection proposal.
Install a new 22kV distribution feeder (WGL31)	19.1	-	AusNet has not adequately considered all available cost-effective options, and EMCa has identified weaknesses in the robustness of the Expected Unserved Energy forecasting. Additionally, the justification for the proposed investment timing is insufficient.
Install a new 22kV distribution	14.3	-	AusNet has not adequately considered non-network solutions to cost-effectively defer the proposed capex, and EMCa has identified weaknesses in the robustness of the Expected

Projects	AusNet Proposal	AER's Draft Decision	Reasons
feeders (SMR11)			Unserved Energy forecasting. Additionally, the justification for the proposed investment timing is insufficient.
WGI new Tx	12.6	11.5	The proposed investment is reasonable. Our alternative estimate reflects the removal of the contingency risk allowance.
Install a new 22kV distribution feeder (WOTS21)	7.3	6.7	The proposed investment is reasonable. The reduction reflects the removal of risk allowance. Our alternative estimate reflects the removal of the contingency risk allowance.
FY27-31 Summer / Winter Network Readiness Program	6.0	3.0	We consider the need for this project to be reasonable. However, we are not satisfied that the proposed unit rates reflect efficient expenditure. We have applied our alternative unit cost based on historical revealed cost.
Total	**400.4**	**114.6**	

Source: AER Analysis, AusNet, *ASD – AusNet EDPR 2026–31 SCS Capex Model* – 310125 – PUBLIC.

Our primary concern with AusNet's proposal is the absence of comprehensive analysis of all available options, as well as insufficient explanation, justification, and supporting evidence for the proposed investments and the options selected. While we acknowledge the increasing demand that may necessitate new investments, we require AusNet to provide sufficient, relevant information and documentation to enable us to properly assess the prudency and efficiency of the proposed expenditure.

For the revised proposal we require AusNet to address the following:

- apply the 2024 VCR and VNR methodology based on the AER guidelines
- provide business cases for all proposed expenditure that clearly identify the need for the investment, along with economic justification
- sensitivity analysis on different demand forecast scenarios
- models need to encompass changes to optimal timing
- models to remove hard coding and to include visible source of information so we can understand how the input and assumptions have been calculated
- risk allowances need further justification including what is the specific project risk the allowance is addressing that is beyond AusNet's control
- provide evidence-based cost justifications
- clear evidence of how AusNet has removed program overlap
- consider all practical options that address the identified need and clear reasons why options are chosen or not chosen
- clear mapping between the business cases and capex model.

A.2.3.2 Connections enablement

We have not included AusNet's connections enablement capex of $180.4 million in our alternative forecast. We consider recovering connection costs from customers is not consistent with the established embedded generation connections framework in the NER. Embedded generators are required to pay for the cost of connection, including any necessary extensions or augmentations to the network. There is a well-established framework, based on economic principles under chapter 5 of the NER.[58]

We do consider there is merit in exploring the ability to unlock more renewable generation at the distribution level and we agree with AusNet that there may be benefits to customers from enabling network connection at the distribution level, such as market benefits from lower costs, lower emissions and enhanced network reliability.[59] However, this is a broader policy consideration for the Victorian distribution network, that goes beyond AusNet and its distribution determination. The regulatory determination process is not an appropriate forum for changes to the established connections framework to be made, as this would involve a broader discussion on potential rule changes for distribution integrated system planning and renewable energy zones in the NEM.

Leaving aside the established cost recovery framework under the NER, we engaged EMCa to consider whether the proposed large customer connection projects were likely to go ahead and whether network investment was required to achieve this.

EMCa reviewed the 4 projects proposed by AusNet totalling $180.4 million (66 kv line up grades at Wodonga, Morwell East stage 1 & 2 and Morwell South).[60]

EMCa considers that AusNet's proposed investment is not sufficiently justified (apart from $1.7 million for the Morwell stage 1 project) because the projects are very sensitive to the amount of generation that ultimately connects and the market benefits that will, over time, accrue to the project. EMCa consider there are considerable uncertainties with the quantum of benefits.[61]

For these reasons, we have not included AusNet's proposed connections enablement expenditure of $180.4 million in our draft decision alternative estimate of augmentation expenditure for AusNet.

A.2.3.3 Reliability

Our draft decision reasons for AusNet's proposed reliability expenditure, which includes the regional reliability allowance, worse served customers and the BN11 upgrade are discussed below.

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58 NER, cl. 5.3A.

59 AusNet, *ASD – AusNet – EDPR 2026 – 2031 Regulatory Proposal – 31 Jan 2025*, pp. 172–173.

60 EMCa, *Report to AER on AusNet Network related expenditures and CER*, August 2025, pp. 96–108.

61 For example, AusNet assumes that the market and emissions benefits would continue to accrue for 45 years into the future, however, the benefit streams should not be assumed to persist at the assumed levels for 45 years or even for 10 years beyond connection, given the rate of renewable generation coming into the market. (EMCa, *Report to AER on AusNet Network related expenditures and CER*, August 2025, p. 84.)

(a) Regional reliability allowance

We have not included AusNet's proposal $88.9 million regional reliability allowance in our alternative estimate for reliability.

An allowance of this nature represents a significant departure from the established approach to managing reliability on the network and is void of information we require to assess and approve reliability expenditure. This includes business cases and risk/economic modelling consistent with what is required for reliability driven replacement or augmentation expenditure assessments because the proposed regional reliability allowance is seeking to improve reliability rather than maintain it. Given the nature of the proposal is a future fund, without defined projects or programs with sufficient information to understand the need, risks and cost, we are not satisfied that the $88.9 million allowance is prudent and efficient.

AusNet provided the following reasons for the inclusion of the regional reliability allowance in its proposal:

- the proposed expenditure is 'allocatively' efficient to satisfy the objectives of the NER/NEO
- it received very strong customer support during the pre-lodgement phase[62]
- the AER has previously accepted operating expenditure that does not meet the requirements of the NER (e.g. a 'transitional amount' related to a change in the Guaranteed Service Level scheme in the last determination)
- that this would operate on a similar basis as an innovation fund that has been approved by the AER.

We consider the regional reliability allowance should not be accepted for the following reasons:

- the regional reliability allowance is unable to be assessed against the capital expenditure criteria outlined in the NER as no business case, with demonstratable costs and benefits was provided. Clause 6.5.7(c) of the NER states that the AER must be satisfied that the proposed expenditure is prudent, efficient and demonstrates a realistic expectation of the demand forecast, cost inputs and other relevant inputs required to achieve the capital expenditure objectives. Project proposals must be able to clearly demonstrate how an investment will be prudent and efficient. We are unable to assess the merits of this against the criteria for assessment of capital expenditure as the proposal is an unallocated lump sum fund without any associated costed projects or benefits. We agree with the Victorian Minister's submission that creating a large discretionary fund undermines the scrutiny provided by the electricity distribution price review process[63]
- customer support alone is insufficient to demonstrate prudent and efficient expenditure, it is informative but not definitive. Although AusNet's customer engagement has demonstrated a strong customer desire for more equitable reliability across urban and rural areas, this must be balanced against the NER capex requirements, including the

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62 AusNet proposed that projects will be identified and defined during the regulatory period, in close collaboration with AusNet's Customer Consultative Committee, operate on a 'use it or lose it' basis and exclude funding through the STPIS, CESS and EBSS.

63 Hon. Lily D'Ambrosio MP, *Submission – Victorian electricity distribution proposals 2026-31*, May 2025, p. 7.

NEO. A network business must be able to demonstrate that its expenditure is prudent and efficient and consistent with the NER. AusNet stated that the regional reliability allowance will 'be spent on projects that do not pass an NPV test taking into account the current values prescribed by the regulatory framework'.[64] Network businesses cannot make inefficient investments contrary to capital expenditure criteria in the NER

- we do not consider that the previously approved transitional funding in operating expenditure to share historical GSL payments represents a means to approve this expenditure. That decision was made in bespoke circumstances and is a specific jurisdictional situation in Victoria arising from the Essential Services Commission of Victoria review of the Distribution Code of Practice for the 2021–26 period and cannot be used as a precedent to enable the acceptance of the regional reliability allowance
- the innovation fund and regional reliability allowance are fundamentally different and this cannot be accepted on the same basis. Innovation and reliability are inherently different concepts. Maintaining reliability is a core service requirement under the NER to ensure that network businesses maintain a reliable energy supply. Further, reliability expenditure has an impact on replacement and augmentation expenditure (and vice versa). System planning and asset management practices spanning replacement, augmentation and reliability should not be considered in isolation or at a future point of time
- AusNet's is proposing it would return unspent funds to customers at the end of the period. This is a fundamental element of the proposal in which customer support was given. Previous AER regulatory determinations have not expressly addressed whether, and how, unspent innovation funds could be returned to customers. We do not consider that businesses can rely on a 'use it or lose it' concept or mechanism because there does not appear to be a means by which unspent funds could be returned to consumers within the limits of the NER framework
- the STPIS exists to ensure network reliability is maintained by network businesses. While AusNet's customers have given strong feedback, we are of the view that the STPIS provides the appropriate framework for maintaining reliability in the absence of specific minimum reliability targets that are applied in other jurisdictions. We note that AusNet has high levels of reliability across its network based on STPIS targets.[65]

(b) Worst served customers

The worst served feeder program ($23.7 million) aims to improve reliability for customers on the 10 worst performing feeders. These feeders are predominately situated in remote locations in harder to service areas.

AusNet identified 10 feeders using a hybrid of the Inadequately Served Customer Measure and secondary qualitative factors such as remoteness, vulnerability and customers on life support to prioritise specific feeders. This approach had support from its customers and its customer panel.

We define Inadequately Served Customers as customers experiencing greater than 4 times the Network average for unplanned SAIDI on a three-year rolling average basis compared

64 AusNet, *Response to AER Information Request #010*, 18 March 2025.

65 AusNet, Distribution Annual Planning Report, December 2024.

with network average customers.[66] This threshold does not exclude Major Event Days or other performance exclusions. This is different from the criteria used by AusNet that has excluded Major Event Days and is reflecting of performance over a 5-year period.[67]

This difference in identification criteria means that the 10 worst feeders identified by AusNet are not what we would identify as the 10 worst performing feeders. This is acknowledged by AusNet.[68]

We reviewed the business case and supporting models and although we agree that these feeders experienced poor performance, AusNet has not demonstrated that the proposed capex will address the underlying cause of the poor performance. We consider that the options considered by AusNet do not address the root cause of the poor performance of the feeders in the program and the cost benefit analysis overestimated the benefits, as discussion below.

Root cause analysis

It is not clear from the information provided that AusNet has considered the root cause of the poor performance when determining the options to improve reliability. This would be to determine what is the cause of the performance and where on the feeder outages are prone to occur. This would allow more targeted investment. In most cases AusNet has considered only a limited number of options such as feeder ties or automated switches from a whole of feeder perspective, and did not consider other options such as covered conductor, increased vegetation management or animal guards that we consider would address the causes of these outages, as outlined below.

Performance analysis of the 10 proposed feeders indicates that the main cause of outages over the last five years is vegetation with asset failure, animal and weather being the next main reasons of an outage. Table A.3 below gives a breakdown of each feeder and the proportion of outages by outage type.

Table A.3 Cause of outage by feeder from 2020 to 2024 (excluding Major Event Days)

Feeder ID	Asset failure	Animal	Vegetation	Weather	Third party	Network business	Other	Total number of outages from 2020–24
BM8B31	21%	5%	26%	19%	0%	9%	20%	57
CN1,2,3	10%	6%	49%	13%	2%	0%	20%	258
KLK11	20%	9%	28%	18%	1%	0%	25%	397
NLA31	24%	19%	19%	13%	1%	0%	24%	156
MSD1	13%	14%	17%	17%	2%	0%	36%	464
MDI1	12%	19%	26%	12%	0%	0%	31%	42

66 AER, *Distribution Reliability Measures Guideline*, December 2024, p. 5.

67 AusNet, *ASD – Worst Served Feeders Program – 0001*, 31 January 2025, p. 7.

68 AusNet, *ASD – Worst Served Feeders Program – 0001*, 31 January 2025, p. 9–10.

Feeder ID	Asset failure	Animal	Vegetation	Weather	Third party	Network business	Other	Total number of outages from 2020–24
MOE13	14%	13%	28%	16%	4%	0%	26%	395
WYK13	15%	11%	33%	10%	5%	0%	25%	681

Source: analysis of raw outage data provided in information request response IR#29, 27 May 2025.

AusNet should undertake a root cause analysis and examine options that directly show that it has addressed the underlining reasons for the poor performance on these feeders.

Cost benefit analysis

AusNet undertook an NPV analysis to compare its proposed investment options to the base case. AusNet has used the 2023 VCR to determine the benefit for this program and conducted sensitivity analysis using a combined approach of QCV for residential customers and the AER's 2023 VCRs for non-residential customers.

AusNet also added a 'solar factor' to its quantification of unserved energy to calculate the VCR. This solar factor appears to be the value of lost solar exports. The incorporation of a solar export into the total unserved energy to calculate the VCR is not correct. These measures represent two different things. The 'solar factor' represents the value of exported energy and is materially different to the VCR which represents the value of energy demanded and foregone. The value of foregone solar export should be considered as a separate benefit.

We have removed the 'solar factor' from the VCR and updated the model to use the 2024 VCR. We found under the updated modelling that all the NPVs for the 10 feeders reduced and 8 of them became NPV negative with the remaining 2 having marginal benefit-cost ratios.

Further, based on the model, it is not clear what the optimal timing of the investment is, particularly for the projects that remain NPV positive.

We also note that the logic behind the associated opex is not clear. The model indicates that the required ongoing opex reduces over time, however, we would expect the opposite to occur. The highest level of asset performance should occur when the initial augmentation is built and would require less opex at the beginning of the asset's life.

We recognise the poor performance of the feeders and the strong support from its customers. However, the evidence provided has not demonstrated that the proposed expenditure is prudent or efficient. We have not included this program of works in our alternative estimate. AusNet should undertake further root cause analysis for each feeder. This analysis would allow AusNet to reassess the options of how best to address the underlying cause of the poor performance and have more targeted investment on the feeder(s). Further, AusNet should ensure the modelling is updated to reflect our concerns above.

(c) Upgrade BN11

The BN11 upgrade aims to address the poor reliability customers have experienced in the Euroa area. It has proposed to install a second express feeder between Benella and Euroa to provide an alternative route for restoration during an outage.

We have reviewed the business case and supporting model justifying the proposed program. Our focus is on the drivers of the program and the benefits used as part of the NPV analysis.

AusNet has stated the program will address:

- a summer demand constraint currently being addressed through mobile generators
- activation of REFCL in the area causing false outages for some customers. However, we note that AusNet has invested in the current regulatory period to address this issue and there is no longer a justified need for this expenditure
- outages due to the environmental conditions the line experience.

We have reviewed the demand constraint raised by AusNet and note that its demand forecast, and related demand driven augex do not present this feeder as facing a demand constraint. Additionally, we note that this is a constraint caused by high temporary tourism demand. We consider AusNet's use of temporary generation as an effective solution to address this constraint.

Similarly to the worst served customer program, AusNet has not demonstrated that it has undertaken a root cause analysis to understand the underlying causes and location of the outages. We assessed 10 years of performance data and found that extreme weather, animals and vegetation are the primary causes of outages on BN11.

AusNet's proposed solution of a second express feeder between Benalla and Euroa does not address the root cause of the outages. Given that environmental conditions are causing the outages, the same number of outages would occur, but instead would be spread over two feeders rather than one. The preferred option does not address the poor performance but obscures it in the reporting metrics.

We also note similar modelling issues for the BN11 program as what was discussed in the worst served customer program above. AusNet has used the 2023 VCR to determine the benefit for this program and has included a 'solar factor' to this benefit. We updated the model using the AER 2024 VCR inputs and removed the 'solar factor' adjustment. This resulted in all considered options being NPV negative, including the preferred option.

We recognise the poor performance of this feeder. However, the evidence provided has not demonstrated that the proposed expenditure is prudent or efficient. We have not included this program of works in our alternative estimate. AusNet should undertake further root cause analysis for BN11. This analysis would allow AusNet to reassess the options of how best to address the underlying cause of the poor performance and have more targeted investment on the feeder. Further, AusNet should ensure the modelling is updated to reflect our concerns above.

A.2.3.4 Safety and compliance

We have not accepted all of the safety and compliance programs proposed by AusNet. However, we consider the Fall Arrest Systems program to be reasonable and are satisfied

with the proposed UFLS implementation project, which addresses system security in response to AEMO's Victorian wide compliance program.[69] That said, we have excluded the risk allowance from the proposed expenditure.

We also consider AusNet's proposed REFCL compliance program to be reasonable in scope. However, we are not convinced that the proposed costs reflect efficient level expenditure. As a result, we have adopted EMCa's recommended unit rate and excluded both an unexplained cost item and the proposed risk allowance from the total expenditure.

Conversely, we are not satisfied that AusNet has adequately justified its proposed $26.9 million Steady-State Voltage Compliance Program and $14.5 million Early Fault Detection programs. In both cases, the underlying assumptions were not sufficiently explained, and EMCa identified several modelling issues. Specifically, in the case of Early Fault Detection program, AusNet's cost estimates exceed the vendor quotation without adequate justification. EMCa considers this investment proposal to be more akin to research and development and not aligned with the capex objectives, we agree with EMCa's assessment.

Table A.4 Summary of AER alternative estimates for compliance and safety augex ($2025–26, million)

Projects	Proposal	AER Draft Decision
REFCL Driven Augmentation	76.5	63.2
Steady-State Voltage Compliance Program	26.9	-
System security - Implement UFLS	20.7	19.9
Early fault detection/broken conductor detection (High consequence areas)	14.5	-
Fall arrest systems	7.9	7.9
Total	**146.4**	**91.1**

Source: AER Analysis, AusNet, *ASD – AusNet EDPR 2026–31 SCS Capex Model* – 310125 – PUBLIC.

A.3 Resilience expenditure

Resilience is the network's ability to continue to adequately provide network services and recover those services when subjected to a disruptive event. It is generally categorised as either network resilience, the ability to withstand or respond to an outage, or community resilience, the ability to assist and support communities during an outage.

A.3.1 AER draft decision

We are not satisfied that AusNet's proposed $260.9 million ($2025–26) for resilience capital expenditure would form part of a total capex forecast that reasonably reflects the capex criteria. Our draft decision includes an alternative forecast of $42.3 million which is $218.6 million or 84% lower than AusNet's proposal.

[69] There is a compliance requirement for businesses to always have aggregate targets of up to 60% of total power system load for AEMO to maintain power system security. NER cll 4.3.1, 4.3.4, S5.1.8, S5.1.10; AEMO, *Victoria: UFLS load assessment update*, May 2023.

A.3.2 AusNet's proposal

AusNet's resilience proposal aims to mitigate the projected bushfire and windstorm risk and potential severe supply interruptions to customers.

AusNet has proposed $260.9 million in network resilience and community resilience. The network resilience consists of stand-alone power systems (SAPS) and asset hardening including undergrounding, pole hardening, covered conductors and upgrading switches.

Community resilience includes, increasing the mobile generator fleet, purchasing four emergency vehicles to provide customer support during severe outages and investing in community hubs.

Table A.5 Breakdown of resilience proposal ($2025–26, million)

Resilience program	AusNet proposal
Asset hardening	238.8
SAPS	7.1
Mobile Generation	3.5
Emergency Vehicles	1.1
Community hubs	10.4
Total	**260.9**

Source: AusNet, *ASD – AusNet EDPR 2026–31 SCS Capex Model* – 310125 – PUBLIC.

AusNet states that the proposal is being driven by:

- increases in the number of and severity of severe outages[70]
- increased attention from the government [71]
- the changing regulatory landscape
- recommendations from the Victorian Outage review
- strong customer and stakeholder support.

We also note there was support for a resilience program from stakeholders including through AusNet's pre-lodgement engagement[72] and from the Victorian Minister for Energy and Resources. However, the Minister also notes the proposal should be scrutinised to ensure it delivers value.[73]

A.3.2.1 Network Resilience

Network resilience includes activities that strengthen the networks' ability to withstand or recover quickly from severe events such as storms or bushfires. AusNet has proposed asset hardening and standalone power systems as part of its network resilience.

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70 AusNet, *ASD - AusNet - EDPR 2026 - 2031 Regulatory Proposal -31 Jan 2025*, p. 176.

71 AusNet, *ASD - AusNet - EDPR 2026 - 2031 Regulatory Proposal -31 Jan 2025,* p. 177.

72 AusNet, *ASD - AusNet - EDPR 2026 - 2031 Regulatory Proposal -31 Jan 2025,* p. 179.

73 Hon. Lily D'Ambrosio MP, *Submission – Victorian electricity distribution proposals 2026-31*, May 2025, p. 2.

Network hardening

AusNet proposes to undertake $238.8 million of network hardening activities as part of its network resilience program. Table A.6 gives a breakdown of the activities:

Table A.6 Breakdown of network hardening proposal ($2025–26, million)

Asset	AusNet proposal
Undergrounding	107.6
Pole hardening	75.4
Covered conductors	34.2
Switches	21.6
Total	**238.7**

Source: AusNet, *ASD – AusNet EDPR 2026–31 SCS Capex Model* – 310125 – PUBLIC.

The network hardening program was developed by undertaking analysis to determine the bushfire and windstorm risk AusNet's assets face using third party climate data. Using the analysis, AusNet set thresholds that reflect the likely conditions when a Major Event Day would occur.

To forecast bushfire risk, the model used Forest Fire Danger Index exceeding 100 as the threshold to quantify the annual fire risk days. To forecast the windstorm risk, the models assessed days where the wind speeds exceeding 11.3m/s.

AusNet then engaged a third party to develop a climate resilience economic model. This model identified and determined the risk of no action, a baseline risk window, risk reduction benefits, and the cost benefit analysis identifying the benefits of reducing the risk against the cost of implementation. This model was calibrated using historic/observed risks.

The climate resilience economic model assessed the following network hardening options:

- replacement of wooden poles with concrete poles
- undergrounding overhead cables
- replacing bare cables with covered conductors
- installing reclosers to segment the network and reduce the number of customers impacted during an outage.

Benefits were identified using the AER's VNR which represents how customers value reliability during prolonged outages.

AusNet considered 3 options that represented varying levels of undertaking the program of work identified in the climate resilience economic model. These ranged from delivering the program over 4 regulatory periods equally, undertaking 35% of the program this period with the rest being done over the following 3 periods, or rolling out the entire program in the 2026–31 program.

AusNet's preferred option is to undertake a full rollout of the program over work in the 2026–31 regulatory period as it provides the highest net benefit in the model. AusNet note that it received support from customers on the program during its pre-lodgement in-person

engagement. However, it did note that its coordination group commented that if affordability concerns require AusNet to find savings, it could spread the program over multiple periods.[74]

Standalone power systems

AusNet has proposed $7.1 million to install 25 SAPS across its network. These services include solar PV generation, battery energy storage and a back-up diesel generator as contingency. Suitable locations are typically located at the ends of feeders, in low customer density areas.

Sites were identified based on historical susceptibility to major outages, taking into account vulnerability factors and age of the assets. An NPV analysis focusing on the value of unserved energy was then undertaken to determine the number of appropriate sites.

A.3.2.2 Community Resilience

Networks play an important role in the provision of essential services to communities in the lead up to, during and after a natural disaster. AusNet has proposed mobile generation, emergency response vehicles and community hubs as part of its community resilience program.

(a) Community hubs

AusNet proposes $10.4 million to install backup supply to 30 community hubs across its network however, the exact buildings would be determined via community consultation if the project was approved by the AER as part of the determination process.[75] AusNet adopted the following approach in determining where it would support the community hubs:

- identified suitable location based on historic outage locations and vulnerability factors
- quantify the value of backup power supply by comparing the cost of providing the backup supply against the locations willingness to accept. The willingness to accept was developed as part of AusNet's QCV study. Where the willingness to accept was greater than the cost, AusNet deemed it a suitable site.

Stakeholders during the pre-lodgement engagement voiced support for backup supply from community hubs.

(b) Mobile generation units

AusNet proposes $3.5 million to purchase four additional mobile diesel generators, a portable station and a high voltage battery system. These additional units would allow AusNet to quickly respond to outages to power main streets or community hubs. Further, this would also contribute to some of the recommendations from the Victorian Network Outage Review which recommended that:

- distribution businesses have capacity and capability to connect main streets and key community assets in areas at high risk of prolonged power outages to temporary generation within 12 hours of an event

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74 AusNet, *ASD - AusNet - EDPR 2026 - 2031 Regulatory Proposal -31 Jan 2025,* p. 187.

75 AusNet, *ASD - AusNet - EDPR 2026 - 2031 Regulatory Proposal -31 Jan 2025,* p. 188.

- a licence condition should apply for AusNet to install network connection points to enable rapid installation of temporary generation in key township locations.[76]

(c) Emergency response vehicles

AusNet proposes $1.1 million to purchase four additional emergency response vehicles that will be able to travel through challenging conditions to provide services such as mobile power generation, communication support and first aid provisions to affected customers during an outage including rural and remote areas with limited accessibility.

In the current regulatory period, AusNet has invested in four trial vehicles to assess their effectiveness and gauge customer and community response to receiving this additional support during outages. AusNet state the initial customer response to the vehicles has been positive, with many expressing their appreciation for the enhanced support during critical events and access to information. [77]

A.3.3 Reason for draft decision

We acknowledge the continual need for networks to manage the risks of extreme weather and the projected increase in climate related risk. We also recognise the community concern around the network's ability to withstand extreme weather and restore power as soon as practicable in a safe and secure manner. This has been well established through AusNet's engagement in preparation of the proposal. We have taken this into consideration in assessing the resilience business case.

Our review has focused on the network hardening and community hub component of the proposed resilience. We found that AusNet had justified the proposed SAPS, mobile generation units and emergency response vehicles projects and that the cost were reasonable.

We have reviewed AusNet's resilience proposal having regard to the AER's 2022 guidance note on network resilience[78] as well as previous decisions on network and community resilience. We have also had regard to:

- amendments to the NER to explicitly include network resilience as an expenditure factor
- requirements for the Victorian DNSPs to develop Network Resilience Plans and for the ESV to enforce compliance with these plans
- actions stemming from the Victorian Network Outage Review.

In coming to our draft decision, we are cognisant of the prolonged outages AusNet has experienced over the recent period and AusNet's drive to better understand the climate risks it faces and minimise these risks. We also appreciate AusNet's efforts to meet our guidance note on resilience.

Below we set out assessment on AusNet's proposed network hardening and community hubs programs.

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76 AusNet, *ASD - AusNet - EDPR 2026 - 2031 Regulatory Proposal -31 Jan 2025,* p. 192.

77 AusNet – EDPR 2026-31 – *Emergency Response Vehicles business case*, 31 January 2025, p. 6.

78 AER, *AER note on the key issues for network resilience*, April 2022.

A.3.3.1 Network hardening

AusNet's network resilience program aims to address windstorm and bushfire risk by hardening assets. This program is in addition to other safety programs addressing bushfire risk, including upgrading REFCL, and replacing assets in codified areas.

Our review of the supporting material provided by AusNet found that while some asset hardening was prudent, the benefits and costs were both overestimated and driving higher levels of expenditure than what would be prudent.

(a) Estimated benefits

As part of our analysis we requested AusNet to update its modelling to the AER's 2024 VCR. This increased the modelled resilience requirement from $222 million to $280 million. However, through the updated modelling and additional information provided, we identified that AusNet had incorrectly applied the VNR methodology.

Our guideline states that the 6–12 hour VCR should be applied when deriving the Value of Unserved Energy for the VNR in the 12–24 hours, 24–72 hours and 72+ hour outages.[79] Instead AusNet has applied the average Victorian VCR as the basis of the VNR. The table below sets out the difference.

Table A.7 Value of Network Resilience by customer type

Customer type	AusNet proposal (2023 VCR $/kWh)	AusNet update (2024 VCR $/kWh)	corrected VNR base ($/kWh)
residential	25.1	49.2	24.2
industrial	74.7	33.5	11.7
commercial	52.2	34.4	12.3
agricultural	44.4	22.3	9.7

Source: AusNet, *Response to IR#039, Corrected Feeder VNR – 2024 Rates* – Public.

Correcting for this reduced the overall benefits by approximately half. We used this corrected benefit for the rest of our assessment.

(b) Estimated costs

Similarly to the repex and augex assessments, we also reviewed the unit rates used by AusNet in the network resilience proposal. We consider that the unit rates for the proposed undergrounding and switchgears and covered conductors are too high. For example, the unit rates for high voltage covered conductors are about twice as high as what we have observed from other distribution businesses. For our alternative forecasts we have adjusted the unit rate of the high voltage covered conductors by 50% to a level we consider to be reasonable.

(c) Options consideration

As stated, AusNet's resilience program is to address bushfire and windstorm risks the network is facing. AusNet has proposed pole hardening to address bushfire risk and covered

[79] AER, *Final decision, Value of network resilience*, September 2024, p. 24.

conductors to address windstorm risk. The proposed undergrounding and recloser programs address both risks.

The pole hardening program consists of replacing identified poles with concrete poles. Although concrete poles are a good option for maintaining the integrity of the network during a bushfire (will not burn down), it is an expensive option. There are more cost-effective options that also address bushfire risk such as pole wraps.

Pole wraps are a proven technology that reduces the risk of a wooden poles from being damaged during a bushfire. These are being used overseas and domestically with proven success. We have also previously funded pole wraps to address this risk.[80]

A.3.3.2 Community Hubs

AusNet proposes to install backup systems in existing community hubs in regional areas (e.g. RSLs and council buildings). These back-up systems are generally behind the meter installations that are contracted by the premise and a third party.

We do not consider 'behind the meter' activities as a network service, as these can and have been provided by third parties and are considered part of a competitive market. In addition, the installation costs and ongoing maintenance (including the ownership) of these assets are typically borne by the building owners as these assets are within its properties as they are the direct beneficiaries of the backup supply. AusNet has not considered why and how the proposed community hubs are appropriately recovered as a standard control service.

We have not accepted the community hubs proposal and have not included this in our alternative estimate of resilience expenditure. AusNet will have the opportunity to address our concerns in its revised proposal

A.3.3.3 Alternative forecast

Our alternative forecast is $42.3 million or 84% lower than AusNet's proposed network resilience. In deriving our forecast we have:

- corrected the benefit calculation in accordance with our publish VNR methodology for network resilience
- adjusted the unit rates for the high voltage covered conductors
- included pole wraps as an alternative option to the pole hardening program.

Using the adjustments above, our analysis showed that the preferred underground solutions are NPV negative, however, we found that alternative asset hardening options (i.e. covered conductors) might be NPV positive for some feeders. This has been included in our alternative estimate. We have also accepted the proposed pole volume in full.

A.4 Connections

The cost of electricity connections is recovered from AusNet's customers and is made up of the cost of connection (gross connections), which is based on the forecast volumes of new

[80] AER, *Draft decision – Attachment 5 – Capital expenditure – Ergon Energy 2025–30 Distribution determination revenue proposal*, September 2024, pp. 79 and 81.

connections and expected unit costs, minus any capital contribution a customer makes towards the cost of the connection (the result is referred to as the net connection cost).

We assess the amount of connection costs AusNet is proposing to recover from its customers as well as the proportion of capital contributions that is netted off the connection costs in line with AusNet's connections policy.[81]

A.4.1 AER draft decision

We are not satisfied that AusNet's proposed $576.5 million ($2025–26) for connections capital expenditure would form part of a total capex forecast that reasonably reflects the capex criteria. Our draft decision includes an alternative forecast of $522.8 million which is $57.7 million or 9.3% lower than AusNet's proposal.

We have also made an adjustment to AusNet's capital contributions to account for an under recovery regarding its data centre contribution, which resulted in a net reduction in the connections expenditure forecast.

A.4.2 AusNet's proposal

Over the 2021–26 period, AusNet experienced an annual average growth rate of 2.1% for its residential customers, with a slightly lower growth rate of 1.9% for small business customers. Medium and large customer numbers continued to grow, but at a slower rate than other customer groups.[82] Over the 2026–31 regulatory period AusNet expects the total customer base to increase at a lower growth rate of 1.8% per year, which means its customer base is growing by more than 76,000 connections over the period.[83] This is set out in table A.8 below.

81 AusNet, *ASD – Appendix 4A Connection Policy – 31 Jan 2025*. The connections policy specifies the categories of persons that may be required to pay a connection charge, the services for which a charge may be made, the basis on which the charge is determined, how this is paid and the threshold below which a retail customer (not being a non-registered embedded generator or a real estate developer) will not be liable for a connection charge for an augmentation.

82 AusNet, *ASD – AusNet – EDPR 2026 – 2031 Regulatory Proposal – 31 Jan 2025*, p. 75.

83 AusNet, *ASD – AusNet – EDPR 2026 – 2031 Regulatory Proposal – 31 Jan 2025*, p. 75.

Table A.8 AusNet's customer number forecasts

Customer type	2025–26	2026–27	2027–28	2028–29	2029–30	2030–31	Growth rate per annum
Residential	765,418	779,000	794,118	808,390	822,628	836,813	1.8%
Small business	63,097	64,063	65,028	65,967	66,915	67,868	1.5%
Medium business	9,990	10,079	10,135	10,196	10,266	10,335	0.7%
Large business	3,931	4,013	4,087	4,148	4,220	4,295	1.8%
Total	**842,436**	**857,955**	**873,368**	**888,701**	**904,029**	**919,311**	**1.8%**

Source: AusNet, *ASD - AusNet - EDPR 2026 - 2031 Regulatory Proposal -31 Jan 2025,* p. 76.

AusNet proposed a single data centre project totalling $39.6 million in gross capex ($24.7 million in net capex).[84] AusNet forecasted a 30% capital contribution rate in its regulatory proposal which was based on existing large load forecasting processes.[85]

A.4.3 Reason for draft decision

We recognise stakeholder concerns regarding the potential uncertainty arising from the rapid electrification and the need to minimise over forecasting connections.[86] We engaged Baringa to assist us in reviewing AusNet's demand, connections and energy consumption forecasts. We also reviewed AusNet's modelled capital contributions and large connections. Our finding on AusNet's customer connections costs and capital contributions is set out below.

A.4.3.1 Customer connections expenditure

Baringa's review found that AusNet's connections forecast for the 2026–31 period were likely to be too high.[87] Although Baringa considered AusNet's approach based on government forecasts for dwelling growth to be broadly reasonable, it had concerns with the significant post-modelling adjustments that require further justification in the revised proposal.[88]

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84 AusNet, *ASD – AusNet EDPR 2026–31 SCS Capex Model – 310125 – PUBLIC* (Calc|Project Costs tab).

85 AusNet –*Response and data to support IR#026, ASD - Business supply projects (1014) - 310125 – PUBLIC,* May 2025.

86 Hon. Lily D'Ambrosio MP, *Submission – Victorian electricity distribution proposals 2026-31*, May 2025, p. 7–8.

87 Baringa, *Report to AER on AusNet Demand Forecast*, July 2025, p. 6.

88 Baringa considered that there was limited transparency and a degree of subjectivity for the basis of relying on local knowledge and these concerns would be addressed if this process was better defined with more justification and clear criteria for when, where, why and how AusNet's post-modelling adjustments are made. Baringa, *Distribution demand forecast assessment, Review of AusNet Services 2026–31 regulatory proposal*, July 2025, p. 33.

Taking into account the advice from Baringa, we have made a 10% reduction to the connections expenditure forecast consistent with AusNet's low case scenario modelling for augmentation projects that we have adopted as the demand forecast for the purposes of our draft decision for augmentation expenditure alternative forecast (discussed in Appendix A.2 above).

Consistent with our decision on AusNet's demand forecasts,[89] our alternative estimate is a placeholder, and we expect AusNet to update its demand, connection and energy consumption forecasts, and address our concerns in its revised proposal.

A.4.3.2 Customer capital contributions

We have identified an issue with AusNet's modelled capital contributions and its proposed data centre connection.

AusNet forecasted a 30% capital contribution rate in its regulatory proposal which was based on existing large load forecasting processes.[90] However, we found that the model AusNet used to estimate the data centre capital contribution included connections which covered the full range of large connections and largely dissimilar to data centres in terms of size and demand. Following discussions with AusNet, we were provided with an updated capital contribution forecast in the range of 78%–95% which is more comparable to other DNSP's capital contribution rate for data centres.[91] We have applied a capital contribution of 86.5% of the gross capex for the data centre AusNet has proposed. This results in a net capex of $17.5 million for the data centre. We anticipate that when AusNet has additional information from its customer a more accurate assessment of costs will enable a more appropriate capital contribution amount which can be presented in the revised proposal.

We accept AusNet's data centre forecast subject to the increased capital contribution forecast as we consider this data centre is likely to proceed based on the supporting information we have. We also accept AusNet's proposed Battery Energy Storage Systems (BESS) and hybrid generation facilities, greater than1.5 MW proposed projects based on the established forecasting methodology and 71% capital contribution.

A.5 Information and Communication Technology

Information and communication technology (ICT) refers to all non-network related devices, applications and systems that support AusNet's business operations. ICT expenditure is categorised broadly as either replacement of existing infrastructure for reasons due to end of life, technical obsolescence or added capability of the system with the acquisition of new assets.

A.5.1 AER draft decision

We are not satisfied that AusNet's proposed $386.7 million ($2025–26) for ICT capital expenditure would form part of a total capex forecast that reasonably reflects the capex

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89 As discussed in Appendix A.2 of this capex attachment.

90 AusNet –*Response and data to support IR#026, ASD - Business supply projects (1014) - 310125 – PUBLIC,* May 2025.

91 AusNet – *Response to IR#045; AusNet EDPR 2026-31 IR045 Capcon Model - Response 20250627;* 27 June 2025.

criteria. Our draft decision includes an alternative forecast of $252.6 million which is $134.1 million or 34.7% lower than AusNet's proposal.

We are not satisfied that 6 of the 11 proposed projects are prudent and efficient. Further, our alternative forecast reflects the cost allocation between distribution, transmission and gas services provided by AusNet. The alternative forecast also includes a placeholder of $27.5 million for cyber security.

A.5.2 AusNet's proposal

AusNet proposed $386.7 million in ICT capex. This is a 19.5% increase from current period actuals/estimates. The proposed capex is driven by the energy transition, resilience, cyber threats, potential future digital technology, reliability and safety, compliance and customer expectations on improved outage communication. The proposal includes:[92]

- $105.1 million in recurrent ICT to provide ongoing support for business systems and hardware
- $234.2 million in non-recurrent ICT to enhance systems to meet customer expectations, modernise network control, enhance asset management systems and increase visibility of field operations
- $27.5 million in cyber security to meet current and emerging regulations and laws.
- $40.7 million in CER ICT (see appendix A.8 for more detail)
- $8.6 million in Innovation ICT (see appendix A.9 for more detail).

AusNet states it has taken into consideration feedback they have received from its engagement with its customer experience and availability panels, the outcomes of the reviews into the February 2024 outage (internal and external), and the different options to achieve the objectives of the digital program.[93] Table A.9 below sets out the 11 projects that make up the ICT proposal (not including innovation or CER projects).

Table A.9 Description of AusNet's ICT programs

Type	Program name	Overview
Recurrent	Technology Asset Management(TAM) – infrastructure	These two programs are to maintain and optimise the infrastructure and applications needed for business operations to manage the network on an ongoing basis.
Recurrent	Technology Asset Management(TAM) – applications	
Recurrent	Metering Systems	This program ensures AusNet's metering systems remain supported, secure, and compliant with regulatory requirements. It includes recurrent lifecycle maintenance for advanced metering infrastructure and non-advanced metering infrastructure systems and non-recurrent upgrades to the Meter Data Management system

92 AusNet, *ASD – AusNet EDPR 2026–31 SCS Capex Model – 310125 – PUBLIC*.

93 AusNet, *ASD – AusNet – EDPR 2026 – 2031 Regulatory Proposal – 31 Jan 2025*, p. 196.

Type	Program name	Overview
Non-recurrent	Asset Risk management	This program aims to upgrade AusNet's asset management systems to enhance analytics, risk identification, and decision-making capabilities.
Non-recurrent	Customer Engagement	This program is investing in AusNet's systems to improve customer communications, service interactions, and operational efficiency. It focuses on maintaining and upgrading customer-facing platforms to meet changing expectations, improve outage management, and ensure faster response times.
Non-recurrent	Advanced Distribution Management System (ADMS) Energy Management (IT portion)	This program is to invest in AusNet's network control capabilities. It is part of a larger project that has commenced in the current regulatory period.
Non-recurrent	Field Enablement Enterprise Resource Planning	This program aims to enhance the efficiency and effectiveness of managing field crews through new digital tools. These investments will improve real-time fault management, field crew tracking, and emergency response capabilities.
Non-recurrent	Network Model Management Geospatial and asset model tools	This program is to integrate the ADMS and geographic information system to improve network visibility, operational efficiency, and data accuracy. This initiative aims to enhances situational awareness for controllers, improves outage management, and supports compliance with regulatory recommendations
Non-recurrent	Market systems	This program is to upgrade the Identity and Access Management, Industry Data Exchange, and Portal Consolidation systems to meet AEMO's NEM reform requirements
Recurrent and non-recurrent	Cyber Security	Investment in cyber security is required to meet current and emerging regulations and laws

A.5.3 Reason for draft decision

We reviewed information AusNet provided in support of its ICT capex proposal, including business cases and cost-benefit analysis. Where needed, we have sought further information from AusNet.

Further, we engaged EMCa to review the prudency and efficiency of the proposed capex and opex for the entire proposed ICT and cyber security expenditure. EMCa based its review on AusNet satisfying the key aspects of our ICT assessment guideline note.[94]

AusNet applied a common method of forecasting its proposed ICT across all projects as follows:

- determine the scope of each project and the initiatives needed to achieve the desired outcome

[94] AER, *Non-network ICT capex assessment approach*, November 2019.

- define the cost of each initiative on an annual basis for both capex and opex
- derive the estimated costs using a mix of internal estimations, vendor quotes and workshops with vendors and system integrators.

We identified three areas of focus for our review that had systemic issues across the proposed ICT projects – scope of works, cost estimate and cost allocation between regulated services. These are discussed further below.

A.5.3.1 Scope of works

AusNet presents each project as comprising several initiatives with brief descriptions of each initiative. However, except for the brief descriptions, the business cases lack evidence to justify the need for each initiative in the proposed scope. That is, AusNet assumed every initiative is needed and does not demonstrate how each initiative contributes to the stated scope. Nor does it provide information that allows consideration of the extent to which such initiatives are separable or inter-related. It is unclear from the business cases the extent to which certain (or all) initiatives may be optional or core to the solution, or foundational and/or dependent on predecessor initiatives before they can be deployed.

Further, the 'options analysis' presented in the business cases in most parts does not explore the merits of including each initiative in necessary detail. Often the options are presented as 'do nothing' or 'do everything', with no gradual or core function option being provided. Additionally, AusNet did not demonstrate the interrelationships between the initiatives that make up the project that would allow for these other options to be tested in the business case.

Although some information was provided following information requests, EMCa were not able to use this to develop alternative options to test in the NPV models provided for each project.[95]

In addition to the above, some of the initiatives included in the proposed projects have 'low maturity' regarding need or function, technology availability, or both. This was often the case for initiatives proposed towards the end of the regulatory period. For example, in response to an information request on the asset management project, AusNet stated that two of the initiatives are subject to uncertainty with implementation planned after 2029 and that one of the initiatives will depend on the maturity and availability of technologies at the time of implementation.[96]

A.5.3.2 Cost estimation

There was limited substantive information in the business cases and NPV analysis as to how AusNet has estimated the costs of its proposed projects, and the cost estimates did not appear to have been calculated from market tested sources, such as vendor quotes or known market costings.

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95 EMCa, *Report to AER on AusNet ICT, August 2025*, p. 11.

96 EMCa, *Report to AER on AusNet ICT, August 2025*, p. 12.

We sought further information from AusNet on the costing methodology.[97] AusNet stated costs were estimated using a combination of methods depending on the nature and maturity of the initiative. For example:[98]

- for projects where detailed design or implementation has commenced in the current period, AusNet leveraged the associated internal investment business case estimates
- for enhancements to existing systems, AusNet used vendor quotes or historical pricing or project implementation cost data to derive cost estimates
- for new or longer-horizon initiatives, particularly where vendor selection was unknown or uncertain, AusNet relied on peer benchmarks, internal estimation frameworks and historical benchmarks from similar projects
- for new systems without incumbent vendors or where the market did not exist, AusNet relied on workshops with vendors and system integrators to develop potential costs.

AusNet's response also confirmed that the estimates are not based on bottom-up cost calculations and that the majority of the estimates are produced from the workshops with vendors and system integrators and are hardcoded.[99] EMCa believe there is a high risk of these estimates having an upwards bias as there is no obligation on the vendors to provide competitive estimates and they are speculative in nature.[100]

We also asked AusNet for information on the maturity of the cost estimates for each initiative. AusNet advised that some initiatives were 'low maturity'. These aligned with the 'low maturity' scope of works initiatives discussed in the section above. EMCa is of the view that the 'low maturity' estimates have high levels of uncertainty and are likely overestimated.

A.5.3.3 Cost allocation

As AusNet's ICT provides services to its electricity distribution, electricity transmission and gas distribution networks, the total ICT costs are proportioned across the three services as they are used to provide support to multiple services. EMCa sought clarification that AusNet had proportioned the ICT costs correctly.

AusNet's response indicated that 100% of the costs had been allocated to distribution in the ICT proposed expenditure. This is not consistent with its cost allocation across its business and will be updated in line with the correct allocation.

A.5.3.4 Cyber Security

AusNet's cyber security proposal is based on achieving Security Profile level 3 under version 2 of the Australian Energy Sector Cyber Security Framework. AusNet proposed $27.5 million of capex for the distribution side of the business. This is 25% of the total cyber security cost of the three network services provided by AusNet – distribution, transmission and gas distribution.

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97 AER, *Information request IR#20*, 30 May 2025.

98 EMCa, *Report to AER on AusNet ICT, August 2025*, p. 13.

99 EMCa, *Report to AER on AusNet ICT*, August 2025, p. 13.

100 EMCa, *Report to AER on AusNet ICT*, August 2025, p. 14.

AusNet has split the cyber security proposal between recurrent to maintain current risk profile and non-recurrent to up lift its capabilities to achieve Security Profile level 3.

Based on our review of AusNet's business case and advice provided by EMCa, we consider that AusNet's proposed cyber security has demonstrated the need of the higher security profile level, given the multiple services it provides and that the proposed capex likely reflects the cost to do so.

However, AusNet has not provided a detailed mapping of the risks it faces against the activities and costs it suggests is needed to address this. Nor has it mapped these activities to the business drivers; distribution, transmission and gas services.

A.5.3.5 Alternative forecast

Based on the concerns raised above, we do not accept the proposed ICT capital expenditure of $386.7 million. We have included an alternative forecast of $252.6 million for ICT. The alternative forecast consists of the following adjustments:

- reallocation between distribution, transmission and gas services as provided by AusNet
- adjustment to allow for deferral of a proportion of initiatives into the subsequent period
- adjustment to account for cost over-estimation bias.

We have also accepted the proposed cyber security as a placeholder as we consider it prudent. In the revised proposal AusNet needs to provide a detailed mapping of the risks, activities and costs to the business drivers as outline above

Table A.10 below provides a breakdown of the concerns for each project we have made an adjustment to. The opex alternative estimate and explanation can be found in attachment 3.

Table A.10 ICT alternative forecast breakdown ($2025–26, million).

Program	AusNet proposed	AER alternative	Reasons
04 Business Systems (TAM - Systems)	67.3	41.3	AusNet has not considered a prudent strategy including prioritising which applications to upgrade and seeking opportunities for prudent risk-aware deferrals (extensions to the lifecycles). This is not aligned with good industry practice. Further, AusNet needs to review and identify any synergies that may exist with the non-recurrent ICT program that may result in cost efficiencies.
05 Hardware (TAM - Infrastructure)	32.7	17.2	AusNet has not considered a prudent option for this program, which would allow it to extend lifecycles for some infrastructure on a risk basis.

Program	AusNet proposed	AER alternative	Reasons
Metering systems	5.0	4.6	Adjustment relates to an error between portioning of ACS and SCS. This is further discussed in attachment 14.
Asset Risk management	79.3	47.6	We agree there is an identified need, however, the project proposed by AusNet with the breadth of scope and costings are not justified. AusNet should rescope and provide stronger costings.
Customer Engagement	45.3	11.3	AusNet have not justified the inclusion of all initiatives that it has proposed nor provided evidence to support the assumed scale and scope of each initiative. Further, the NPV is negative, which does not align with the ICT guideline for this type of expenditure. AusNet should explore a new option for a core program of a sub-set of initiatives that will likely be NPV positive.
ADMS Energy Management (IT portion)	27.9	20.3	AusNet should take into account the 2 year lag the project is experiencing in the current period. Phase 3 should be rescoped, with focus on the highest value initiatives (noting the interdependencies). AusNet should review the costs and benefits to ensure they are robust and only have costs with a higher level of maturity.
Field Enablement Enterprise Resource Planning	18.8	17.5	Although we have accepted this program, we have made an allocation adjustment of $1.3 million. The distribution related forecast is $17.5 million for capex.
Network Model Management Geospatial and asset model tools	42.7	32.1	The identified need and risk analysis has overrated the overall risk. The direct capex improvement is overestimated and when corrected, the project NPV becomes negative. An alternative option to defer some of the work to the next period and focus on the highest value-adding components needs to be considered. AusNet needs to justify the assumptions used and conduct sensitivity analysis to demonstrate the robustness of the expenditure.
Total	**319.0**	**191.9**	

Source: AER Analysis, AusNet, *ASD – AusNet EDPR 2026–31 SCS Capex Model* – 310125 – PUBLIC.

A.6 Property

Property is non-network expenditure that relates to the maintenance, refurbishment and optimisation of offices, control rooms, operational depots, warehouses, training and other specialist facilities used by AusNet in support of its business operations.

A.6.1 AER draft decision

We are not satisfied that AusNet's proposed $173.7 million ($2025–26) for property capital expenditure would form part of a total capex forecast that reasonably reflects the capex criteria. Our draft decision includes an alternative forecast of $120.5 million which is $53.2 million or 30.6% lower than AusNet's proposal.

A.6.2 AusNet's proposal

AusNet proposed $173.7 million in property expenditure. This is a 210% increase from the current regulatory period. The main driver of this increase is AusNet's proposed 'Strategic Depot Reset', which aims to relocate several key depots to improve efficiencies and is in response to the proposed large increase in network expenditure. This expenditure hopes to provide a wide array of benefits including avoided maintenance and faster response times.

AusNet have proposed the redevelopment of the training centre and refurbishment of the control room to help assist with improving the outcomes for its workforce. The remaining expenditure contains capitalised leases and business as usual expenditure on improvements. A breakdown of the proposal is set out below:

- strategic depot reset program ($82.0 million)
- business-as-usual property works ($20.3 million)
- capitalised leases ($19.6 million)
- South Morang training centre redevelopment ($14.3 million)
- control room refurbishment. ($2.4 million).

A.6.3 Reasons for draft decision

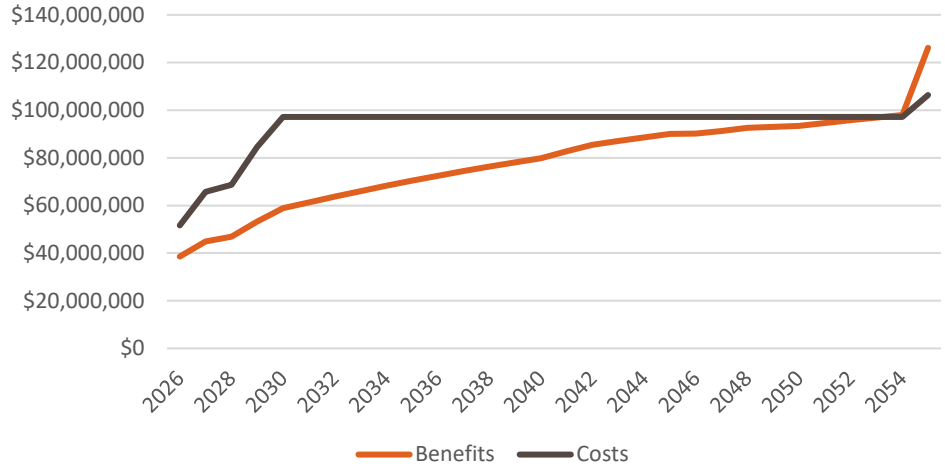
We have reviewed the supporting material for the proposed property expenditure including business cases and supporting models. Our assessment focused on the strategic depot reset program and the redevelopment of the South Morang training facility. We found the other portions of the proposal to be prudent and reasonably costed.

A.6.3.1 Strategic depot reset program

The focus of our review was on the supporting NPV analysis of the strategic depot reset program. AusNet's proposal provided a detailed economic model with a comprehensive list of modelled inputs that we would expect to see in modelling a project of this nature.

The modelling indicated that the development of four depot sites was NPV positive. One site was in the Melbourne area while the other three were in regional areas. The NPV analysis considers multiple benefits such as improved response times, labour cost savings, improved public safety and avoided environmental costs. We determined that the NPV outcome was predominately dependent on the estimated land value, expected value growth rate and the future sale of the sites in 2054. Figure A.3 demonstrates the impact of this on the NPV outcomes.

Figure A.3 Benefits and costs for strategic depot reset



Source: AER analysis of *ASD – AusNet – Depot CBA – 310125 – Public.*

We consider that relying on the future sales of the sites in 30 years to justify the proposal is speculative. As such, we reviewed the robustness of the assumptions underpinning the future sale.

We requested further information on how the land prices were derived. AusNet provided publicly sourced information of commercial site sales for two of the proposed depot sites. From the information provided it appears that the land price per square meter was derived not from sales data but from on market prices. We would expect sales data to be used for this type of input as it is reflecting the markets willingness to pay, not the desired sale price from the seller.

Further, AusNet applied a 3% growth rate assumption across all four sites. This growth rate underpins the future sale benefit of these sites in the model. We have not been able to determine how this growth rate was derived, nor has AusNet explained why it should be applied uniformly across all the sites particularly when each site location is facing different economic conditions and likely levels of growth.

We compared the land values and growth rates proposed by AusNet to public market reports from CBRE as well as undertaking desktop analysis of recent industrial zoned land sales. These reports indicated that current sales of industrial land in the regions of the proposed sites are lower than what has been suggested by AusNet.[101] We have applied the low case to the land growth rate in determining our alternative forecast for the strategic depot reset program.

We require AusNet to review all its input assumptions to ensure they accurately reflect the likely benefits and costs the strategic depot reset program will face. Further, AusNet should provide evidence of how these inputs were derived.

We do not accept AusNet's proposed strategic depot reset program of $82.0 million. Our alternative forecast is $49.2 million. This is a $32.8 million reduction in the strategic depot

101 CRBE Reports: https://mktgdocs.cbre.com/2299/8c5c0d8d-a121-44cb-947d-667bfc94f416-784949063/Figures_Melbourne_Industrial_a.pdf

reset program being driven by the adoption of the low case for land value growth for regional depots. This has resulted in two of the depots no longer being NPV positive.

A.6.3.2 South Morang training centre redevelopment

We reviewed the business case and supporting economic model used as justification of the redevelopment of the South Morang training centre.

The model presents the benefit of this project as avoided project delay risk. This risk represents the risk to the network if AusNet does not have the workforce to undertake the work. The model has used an example project, Wollert zone substation augmentation, to demonstrate the magnitude of the risk it faces. It has estimated this risk to be approximately $195 million in a single year.

AusNet only assumed that this risk would appear for the options that were not preferred. We believe this risk would be present regardless of which option was chosen. Additionally, the risk does not eventuate until 2032, and only occurs in that year. AusNet has not explained the reasoning behind this nor how the risk was calculated.

We also consider that AusNet would need to continue to engage third party training until the facility is redeveloped which is set for the end of the period. However, the cost associated with undertaking internal training following the redevelopment is not justified compared to ongoing training through other options.

We were also concerned that AusNet had not fully explored potential alternative options, in particular interstate training or a mix of interstate and local training. In response to an information request,[102] AusNet suggested that there is a risk associated with third party and interstate training as they are both extremely constrained in what they can deliver and that workers require Victoria specific training. However, given the modelling, the preferred option of redevelopment still uses third party training for the first four years of the redevelopment but the cost associated with this risk is not included in this option.

Despite this, it remains unclear if AusNet would instead be able to utilise a mixture of Victorian and interstate training to meet their capacity associated with their increase in workforce while minimising costs and meeting the Victorian specific requirements.

Given the economic model is extremely sensitive to changes in this ‘project delay risk’ and timing, AusNet should return in the revised proposal with more accurately modelled inputs and consideration of the risk of each option. Further it should explore additional options such as interstate training or a mix or interstate and local training.

We have not included the proposed expenditure for the South Morang training centre as a part of our alternative estimate.

A.7 Fleet

Fleet is non-network expenditure that relates to the provision of motor vehicles, plant and equipment used by AusNet in support of its business operations.

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[102] AusNet, *Response to AER information request IR#19*, 17 April 2025.

A.7.1 AER draft decision

We are not satisfied that AusNet's proposed $144.2 million ($2025–26) for fleet capital expenditure would form part of a total capex forecast that reasonably reflects the capex criteria. Our draft decision includes an alternative forecast of $88.0 million which is $56.2 million or 39% lower than AusNet's proposal.

A.7.2 AusNet's proposal

AusNet has proposed $144.2 million in Fleet capex. This is a 1575% increase from current period actuals/estimates. The proposal is mainly being driven by transitioning from a leasing arrangement to fleet ownership. The proposal consists of:

- $123.3 million for transitioning from its current leasing arrangement to fleet ownership
- $19.9 million for the replacement of light vehicles, with new electric vehicles
- $1.1 million for emergency response vehicles as part of its resilience program (discussed in appendix A.3).

AusNet's Coordination Group's submission noted that AusNet's change in service provider from Downer to Zinfra impacts fleet capex. The group also noted that non-network expenditure includes a material amount of expenditure to bring fleet vehicles in-house following the change in service provider. It encouraged the AER to ensure this represents value for money for consumers in the context of the overall service contract and its impact on the proposal.[103]

A.7.3 Reasons for draft decision

We reviewed the material provided by AusNet including a business case for the replacement of light vehicles with new electric vehicles, a business case for the additional purchase of emergency response vehicles and a model submitted to justify the proposed transition from a leasing arrangement to an ownership model.

A.7.3.1 Leasing arrangement to fleet ownership

Due to changing service delivery models from Downer to Zinfra, AusNet has chosen to take operational control of all its fleet. This decision aligns with AusNet's business objectives and should support more efficient operations and provide better support to the delivery of the proposed capital program.[104]

Our review of the ownership transition program focused on the data quality and input assumptions of the economic model. It should be noted we would expect this type of program to have a standalone business case setting out the need and justification, the options considered and the reasoning for the preferred option. We identified two concerns in the model:

- a double count of some plant/equipment asset expenditure
- an inconsistency in how the end-of-lease adjustment was made in the model.

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103 AusNet Coordination Group, *Submission – Victorian electricity distribution proposals 2026-31*, May 2025, p. 47.

104 ASD – *AusNet – EDPR 2026 – 2031 Regulatory Proposal – 31* January 2025, p. 220.

AusNet recalculated the price of new leases, instead of using existing rates. This creates an average 32% increase in the real price of leases following expiry of existing leases. However, the model assumes that the purchase price of each vehicle will not change for 40 years. This means there is a bias towards purchasing over leasing. By removing this bias (by either incorporating a similar price increase for vehicles or removing the lease cost escalation) we found that continuing under leasing arrangements becomes the preferred option.

Our alternative estimate consists of a $48.7 million reduction to the transition to lease arrangement to fleet ownership program. This has taken into account the double count of plant/equipment assets and an adjustment to the model to remove the assumption bias.

A.7.3.2 Replacement of light vehicles, with new electric vehicles

AusNet provided an economic model for its proposed fleet electrification project of $19.9 million capex. We analysed two scenarios – the Base Case with no EV uptake and AusNet's proposed EV uptake. AusNet 's model included modelled opex savings but did not include a full cost-benefit analysis or take into consideration emission reduction benefits.

AusNet proposed to replace all its light vehicles at end-of-life with EVs over the period. This approach resulted in the purchase of some EV vehicles that are not considered economic to purchase in the current market such as electric driven utility vehicles, which have a high premium over internal combustion vehicles.

AusNet has not undertaken a thorough analysis of the options for a gradual transition to EV's which we have seen with other DNSP's such as SA Power Networks.

Our alternate estimate includes a $7.6 million reduction to the proposed replacement of AusNet's fleet of light vehicles to EV's. This adjustment reflects a more gradual replacement of EVs. This is consistent with the recent SA Power Networks decision, [105] allowing the replacement to EV's where it is cost equivalent to internal combustion vehicles.

A.8 CER integration

Consumer energy resources (CER) include rooftop solar photovoltaics (PV), energy storage devices, electric vehicles and other consumer appliances that can respond to demand or pricing signals. For distribution networks, CER integration expenditure is primarily for the purpose of accommodating the connection of additional rooftop solar PV to the network and maintaining the export service for rooftop solar PV customers.

A.8.1 AER draft decision

We are not satisfied that AusNet's proposed CER integration capex forecast of $89.5 million ($2025–26) reflects the capex criteria. Our decision is to include $33.6 million for CER integration in our alternative capex estimate. This is a $56 million ($2025–26) or 63% reduction in CER integration capex.

105 AER, *Draft Decision – Attachment 5 – Capital expenditure – SA Power Networks 2025-30 Distribution revenue proposal*, September 2024, p.10.

A.8.2 AusNet's proposal

AusNet proposed $89.5 million of capex to undertake the following activities related to CER integration:[106]

- Distribution Service Operator (DSO) Hub ($40.8 million)

  AusNet's CER integration strategy notes that as the distributed energy system becomes more challenging to manage, including through an increase in two-way flows and the need to manage more interactive and flexible CER, it must find smarter solutions to manage the challenge, to meet new customer expectations and to defer the need for network augmentation. The proposed DSO Hub investment consists of seven initiatives.[107] One of the proposed initiatives is the complete rollout of flexible exports from July 2026, as an alternative to a lower static export limit.

  AusNet's proposal suggests that its preferred investment option would maintain the existing systems and any new functionality required will be addressed through upgrading existing modules or adding new modules from the existing vendor and software environment. AusNet claims that this program will provide $4.8 million ($2023–24) in net economic benefits, primarily from deferred augmentation but also from reductions in export curtailment and carbon emissions.[108]

  AusNet also proposed an opex step change of $8.5 million related to flexible services, which we discuss in Attachment 3.

- CER enablement ($40.4 million)

  AusNet proposes that this program will address network export limitations through dynamic voltage management and network augmentations to increase hosting capacity (such as transformer upgrades). AusNet also notes that it intends to assess the opportunity to adopt storage as a non-network alternative on a case-by-case basis. The proposed investment option is described as an economic approach to unlocking hosting capacity, with a net economic benefit of $427 million ($2023–24). AusNet anticipates that this program of works will enable 264 Gigawatt hours of renewable exports, putting downward pressure on wholesale electricity prices and reducing 16.7 kiloton of CO_2 per year.[109]

- Supply improvement ($8.4 million)

  AusNet proposes that this recurrent program will respond to network quality complaints, including harmonics, unbalance and voltage flicker.

A.8.3 Reasons for draft decision

In assessing the proposed CER integration expenditure we considered:

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106 Direct escalated costs ($2025–26). Totals do not sum due to rounding.

107 These activities include (1) DER Optimisation/Integration, (2) Distributed Energy Resource Management System (DERMS) – Load Management, (3) Full roll out of flexible exports, (4) Network data sharing, (5) CER Open Data Exchange Integration, (6) Flexible Demand Orchestration, and (7) Flexibility Services Integration.

108 AusNet, *Business Case: Distribution System Operator (DSO)*, January 2025.

109 AusNet, *Business Case: CER Enablement*, January 2025.

- AusNet's proposal and supporting documents, including its CER integration strategy, hosting capacity analysis, relevant business cases, demand forecasts, economic models and responses to our information requests
- EMCa's technical advice (for the proposed DSO Hub and supply improvement activities).

We also considered stakeholder submissions on AusNet's capex proposal. Stakeholders generally supported AusNet undertaking investments to support the uptake of CER and maximising the utilisation of rooftop solar PV. Notable submissions were made by:

- the Victorian Government, which submitted that DNSPs must transition to their evolving role to deliver DSO functions as part of an increasingly decentralised energy system, as outlined in the National CER Roadmap national reform priority: *Redefine roles for market operations*. However, it called for more clarity on expected outcomes of DSO expenditure, including investments enabling low-voltage visibility, flexible services and the procurement of network support services. It also suggested that AusNet (and other DNSPs) had not adequately justified why investing in new platforms is efficient and necessary (for the purpose of providing network visibility), when it already used the Rosetta platform[110]
- AusNet's Coordination Group, which submitted that AusNet's proposed expenditure in this area is consistent with customer attitudes, which are generally in favour of enabling the use of CER and making the most of rooftop PV output. It also noted that it supported the use of CER to enable better utilisation via flexible exports and tariffs[111]
- AGL, which submitted that DNSPs should pursue initiatives which can help unlock market-driven demand-flexibility. Examples of this include projects to improve data visibility, improve CER and EV connection processes, and to create simpler tariffs that share the network value of CER integration[112]
- Victorian Greenhouse Alliances, which identified a need for standardised benchmarks and metrics in assessing CER expenditure that provide insights on service levels and customer benefits.[113]

A.8.3.1 DSO Hub

We support the key objectives of AusNet's proposal, including introducing flexibility in network management of customers' solar exports to increase network utilisation, reduce network costs and improve customer outcomes.

While AusNet is not yet formally obligated to fulfil any DSO functions, we agree that it would be prudent for it to undertake such activities if they will provide net benefits to consumers. However, we also agree with the Victorian Government in relation to the need for clarity on the expected outcomes of DSO expenditure. Currently, there is a risk that DNSPs are funded to undertake projects of different sizes and scopes, which may need to be expanded or reduced later. Given the current lack of formal obligations (for example, in relation to export

110 Hon. Lily D'Ambrosio MP, *Submission – Victorian electricity distribution proposals 2026-31*, May 2025.

111 AusNet Coordination Group, *Submission – Victorian electricity distribution proposals 2026-31*, May 2025.

112 AGL, *Submission – Victorian electricity distribution proposals 2026-31*, May 2025.

113 Victorian Greenhouse Alliances, *Submission – Victorian electricity distribution proposals 2026-31*, May 2025.

service level outcomes), there is some risk that DNSPs will prioritise other activities at the expense of DSO functions.

Furthermore, EMCa concluded that, while it is justified to develop ICT capability to offer a full rollout of flexible exports, AusNet's proposed DSO Hub includes significant and costly functionality that is not justified. It noted that:[114]

- AusNet's economic assessment is implausible and cannot be relied on. The economic model inputs were highly questionable, the timing of forecast benefits did not appear realistic, and avoided generation curtailment and emissions reduction benefits were not proportionate to each other
- AusNet's options analysis is not meaningful, as 'do nothing' is not a credible investment option, and the remaining options considered by AusNet do not account for project scope refinements (the inclusion/exclusion of certain initiatives)
- AusNet has not justified the proposed scope. EMCa found that the roll out of flexible exports, DER Optimisation and DERMS – Load Management provide most of the project's benefits. For some initiatives, including Network Data Sharing and Flexibility Services Integration, the estimated customer benefits are not evidenced
- costing is likely to be overestimated. EMCa found that, as with AusNet's other proposed ICT projects, costs for the seven DSO initiatives are somewhat overestimated.

Our alternative estimate for CER integration capex includes $16.5 million for DSO Hub activities. This will enable AusNet to undertake DER Optimisation/Integration, Distributed Energy Resource Management System (DERMS) – Load Management, and the full roll out of flexible exports. If AusNet considers a project of greater scope will deliver greater benefits, we encourage it to clearly articulate the estimated benefits for each DSO initiative.

In addition to AusNet's revised proposal, we will consider the status of the DSO Workstream under the National CER Roadmap, including any potential new DSO obligations for DNSPs, when making our final decision. We also acknowledge that the AEMC is considering Energy Consumers Australia's 'Integrated distribution system planning' rule change request, which would reform the current distribution annual planning process and require DNSPs to publish new types of network data.[115] We support the integrated distribution system planning rule change proposal as a pathway to provide the market with low-voltage network data. However, until there is clarity on the status of this proposal, including the potential for new data collection and reporting obligations, there is a risk that DNSPs may implement bespoke network visibility solutions that require subsequent standardisation.[116]

A.8.3.2 CER enablement

Network augmentation for CER enablement should be considered a last resort investment, as it will decrease network utilisation and potentially erode the benefits provided by flexible exports. We consider that the proposed CER enablement program is not prudent and

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114 Energy Market Consulting Associates, *AusNet Services 2026-31 Regulatory Proposal: Review of aspects of proposed network related expenditure and CER ICT*, August 2025.

115 AEMC, *Integrated distribution system planning*, accessed 14 August 2025.

116 The AEMC is required to publish its draft determination on the integrated distribution system planning rule change proposal by 19 March 2026.

efficient because AusNet has not quantified export service levels, its options analysis is flawed, and benefits are overestimated.

AusNet's research indicated that its customers value solar exports and do not want them to be wasted. It submitted that customer willingness to pay for enabling solar exports was around $52 p.a. for households and $197 p.a. for small businesses. However, in this willingness to pay study there was no evidence that customers were informed about current export services levels (based on AusNet's hosting capacity analysis), or the likely impact of the proposed investment on export service levels (also taking into account the proposed full roll out of flexible exports). For example, surveyed customers viewed export curtailment as wasteful but were seemingly not informed by AusNet how export curtailment impacted them (that is, how often export curtailment occurred, and for how long). Therefore, although the proposed approach is intended to maximise economic benefits, it is difficult for us to put significant weight on customer support for the proposed investments.

We consider that, as with the proposed DSO Hub, 'do nothing' is not a credible investment option, and this overstates the counterfactual risks (and the benefits associated with AusNet's proposal). AusNet's counterfactual, or base case scenario, should consider business-as-usual investments such as tap changes and phase balancing. In addition, by 2036–37, we expect that the significant majority of AusNet's customers with rooftop solar PV will be receiving flexible exports (or otherwise will be subject to a 1kW static export limit), and then the volume of generated energy at risk will be lower. As noted previously in this decision, AusNet's demand forecast has not accounted for home battery storage, which also leads us to consider that the energy at risk (and benefits of addressing energy at risk) are overestimated.

We also consider that AusNet has overestimated the benefits of this program by only modelling benefits up to 2036–37, then for each type of benefit, assuming they remain constant until 2046–47. A more realistic estimate of benefits would account for the forecast generation mix beyond 2036–37. Victoria has a legislated renewable energy target of 95% by 2035, which will mean the closure of its three remaining coal generators. In this case, the total value of avoided curtailment and emissions reductions will decline over time, as rooftop solar exports will increasingly displace less costly and less emissions-intensive types of electricity generation (and in some cases zero fuel cost and zero emissions generation).

Our alternative estimate for CER integration capex includes $8.7 million for CER enablement. This will allow AusNet to undertake the proposed dynamic voltage management activities, in addition to the full roll out of flexible exports proposed in the DSO Hub business case.

A.8.3.3 Supply improvement

We note that this program will reactively address network-driven power quality issues and is separate to the proposed steady-state voltage compliance program.

EMCa reviewed the proposed supply improvement program and found it is based on common industry practice and the expenditure is reasonable as it is likely that some power quality complaints will arise, despite investments in dynamic voltage management.

Our alternative estimate for CER integration capex includes AusNet's forecast of $8.4 million for supply improvement.

A.9 Innovation allowance

We recognise the importance of innovation investment in supporting the energy transition and protecting customers. Trials and pilots enable businesses to test and explore new ideas, concepts and technology before committing to implementation of solutions and rolling these into business-as-usual activities. We acknowledge the potential benefits of having explicit ex-ante innovation funding within the regulatory framework, together with on-going consumer oversight, performance reporting and information sharing.

We consider funding through a distribution determination where this meets our innovation criteria.[117]

A.9.1 AER draft decision

We are not satisfied that AusNet's proposed $17.8 million ($10.2 million capex, $7.7 million opex)($2025–26) for network innovation would form part of a total expenditure forecast that reasonably reflects the expenditure criteria. Our draft decision includes an alternative estimate of $6.5 million ($4.0 million capex, $2.4 million opex).

A.9.2 AusNet's proposal

AusNet proposed a suite of seven network innovation projects. In support of its proposal, it provided a business case[118] and a cost build-up model.[119]

The proposed projects include:

- leading-edge network modelling and data
- alternative storage technologies
- real time sharing of network data
- CER and electrification
- V2G for outage management
- tariff trials
- flexible demand trials for residential customers.

AusNet provided qualitative benefits for its innovation projects as part of its proposal. It submitted that it did not quantify the potential benefits of the projects as it could not reliably estimate the long-term benefits that these projects may deliver.[120]

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117 AER, *Final decision – Attachment 5 – Capital expenditure – Ausgrid distribution determination 2024–29*, 30 April 2024, pp. 35–41.

118 AusNet, *Planned projects under innovation fund and demand management innovation allowance (DMIA),* 31 January 2025.

119 AusNet, *Innovation Program Model*, 31 January 2025.

120 AusNet, *Planned projects under innovation fund and demand management innovation allowance (DMIA),* 31 January 2025, p. 3.

AusNet proposes to exclude innovation expenditure from the CESS calculations under a 'use it or lose it' model.[121]

AusNet submitted that its governance arrangement would result in its innovation advisory committee introducing or selecting projects during the regulatory period, which may differ from the projects included in AusNet proposal.[122] It cites the need for flexibility due to potential changes in priority for strategic innovation as the main driver of this arrangement.

A.9.3 Reasons for draft decision

We recognise the importance of innovation investment in supporting the energy transition and protecting customers. There is a need for trials and pilots to test and explore new ideas, concepts and technology before committing to implementation of solutions and rolling these into business-as-usual activities. We also recognise AusNet's customer engagement on innovation-related expenditure.

We have not accepted AusNet's forecast in full. Our alternative forecast is a placeholder of $6.5 million. This placeholder is based upon our consideration that AusNet has demonstrated the prudency of two of its projects:

- alternative storage technologies
- V2G for outage management.

However, AusNet did not provide evidence in support of the quantitative benefits of its proposed programs. We acknowledge the inherent uncertainty associated with forecasting ex-ante innovation expenditure, especially with respect to benefit quantification. However, we note that in previous determinations, other businesses have forecast, and we have assessed, a full suite of innovation projects with a quantified cost-benefit analysis. [123] To address uncertainty with its ex-ante innovation proposal, businesses have also used different techniques such as an 'investment safety margin' or uncertainty factor in their estimates. As a result, we consider that AusNet has not provided the sufficient evidence in support of the efficiency of its forecast. Our inclusion of these projects is contingent on AusNet providing the relevant evidence of the quantitative benefits of these programs in its revised proposal.

For the rest of the proposed programs, we found that they did not satisfy the ex-ante innovation criteria; particularly the criteria that the project be innovative. While we acknowledge the potential benefits of ex-ante innovation expenditure, we are also conscious of the more cautious support among some consumer groups in previous processes. Some issues raised include whether innovation proposals could already be funded through the regulatory allowance and other regulatory mechanisms. Consequently, we appreciate the need for transparency about the ex-ante innovation expenditure to ensure that the proposed trials and pilots are likely to result in net benefits to consumers.

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121 AusNet, *Planned projects under innovation fund and demand management innovation allowance (DMIA),* 31 January 2025, p. 6.

122 AusNet, *Planned projects under innovation fund and demand management innovation allowance (DMIA),* 31 January 2025, p. 4.

123 AER, *Draft Decision, SA Power Networks Electricity Distribution Determination 2025 to 2030, Attachment 5 Capital Expenditure*, September 2024, pp. 37–38; AER, *Final Decision, Ausgrid Electricity Distribution Determination 2024 to 2029, Attachment 5 Capital Expenditure*, April 2024, p. 37.

Our position is to not exclude AusNet's innovation program from CESS. For more information regarding our decision, refer to attachment 6 on the CESS.

Below we set out our assessment against our innovation program criteria and how we have derived our alternative forecast.

A.9.3.1 Criteria to assess AusNet's innovation program

Consistent with our recent determinations, we use the following criteria to assess innovation programs:

- the proposed projects in the program must be 'innovative'
- the justification for the proposed projects must be linked to the expenditure objectives
- the business has explained how the existing incentive schemes, allowances, government grants and regulatory sandboxing have been considered and genuinely exhausted before considering innovation expenditure
- the proposed projects must be prudent from a scale perspective for a trial/pilot phase. There is also a framework setting out the pathway from trial/pilot to business-as-usual phase, including success factors/criteria applied to trials/pilots to assess whether it proceeds to the business-as-usual phase
- there is stakeholder support for the innovation expenditure.

(a) The projects must be 'innovative'

We consider that innovative projects should have the following characteristics:[124]

- involve a new concept or technology/technique or activity – where these have been already tested on another network, the business must provide justification that an innovation project is required to address implementation risk for this proven concept, technology/technique or activity
- not be a business-as-usual activity – business as usual activity would have enough information available to be proposed as expenditure in a business' regulatory proposal
- have an unproven business case – as an untested activity, we would not necessarily expect a net positive outcome for an innovation project. In particular, a net positive outcome would indicate that a business should invest as a business-as-usual activity, beyond a trial or pilot. However, we would expect that a business could demonstrate the potential benefits to consumers in the event the activity is successful
- be untested at scale – deployment/volume should reflect trial/pilot phase of the testing.

We found that AusNet partly satisfied this criterion. We have removed four projects from our alternative forecast; these being:

- leading-edge network modelling and data
- real time sharing of network data

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124 AER, *Final Decision, Ausgrid Electricity Distribution Determination 2024 to 2029, Attachment 5 Capital Expenditure*, April 2024, pp. 37–38.

- CER and electrification
- tariff trials.

We found these projects to either not be innovative or expenditure that we would otherwise expect to be a business-as-usual activity. For example, the Leading-edge Network Modelling and Data project aims to improve understanding with respect to modelling of low and high voltage distribution networks with data analytics and modelling techniques. In our view AusNet did not provide sufficient evidence in support of the need for an innovation trial and we are of the view that this type of modelling would be considered a business-as-usual activity in response to an underlying need.

(b) The justification for the proposed project must be linked to the expenditure objectives

We consider that AusNet has satisfied this criterion.

We consider that a business should explain how its proposed projects are linked to the expenditure objectives because these objectives are the service outcomes that are in the long-term interests of consumers. In response to an information request, AusNet linked each of its proposed projects to the capex objectives.[125]

(c) The proposed projects cannot be funded elsewhere

We consider that AusNet has partially satisfied this criterion. We have removed one program we found to have not met this criterion; this being the Flexible Demand Trials for Residential Customers program.

We consider that our ex-ante regime and other mechanisms are available to incentivise (for instance, the Customer Service Incentive Scheme) as well as directly fund innovation solutions (for instance, the Demand Management Innovation Allowance Mechanism (DMIAM)). We acknowledge that our regulatory framework may not necessarily capture the benefits from trials and pilots at the localised/community level. We expect a business to provide supporting information to demonstrate that it has considered other existing funding mechanisms prior to requesting for explicit innovation funding.

AusNet's proposal sets out its included DMIAM allowance.[126] AusNet stated that it has not forecasted or developed its DMIAM projects in advance for the regulatory proposal, as it requires flexibility in choosing the projects to meet emerging needs. It highlighted two areas that it anticipates will require more innovation in relation to demand management, namely minimum demand management with large customers and critical peak pricing for large customers in winter. With respect to the Flexible Demand Trials for Residential Customers project, AusNet submitted that there is insufficient funding under the DMIAM for this program. As this program relates to demand management, we consider the DMIAM to be the appropriate funding mechanism for such a program and that it should be balanced amongst other priorities within this allowance. As such, we have removed it from our alternative forecast.

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125 AusNet, *Response to Information Request #014 – Capex and Opex – Non-network Expenditure Files*, 9 May 2025.

126 AusNet, *Planned projects under innovation fund and demand management innovation allowance (DMIA),* 31 January 2025, p. 14.

We also note that AusNet has demonstrated how it has historically utilised external funding mechanisms such as funding through the Australian Renewable Energy Agency.[127] We consider that businesses proposing innovation expenditure demonstrate that it has exhausted all alternative funding sources.

(d) The proposed projects must be prudent – deployed at a scale consistent with a trial/pilot

We consider that AusNet has satisfied this criterion.

We consider that when testing an unproven or new activity on a business' network, it would be prudent to limit rollout/deployment to a level that is consistent with a trial/pilot phase. There is a threshold where these innovative activities could then become business-as-usual activities.

AusNet provided details of the timeline of proposed innovation projects and when it anticipates being able to see the scaling up of the capabilities following these trials.[128] In addition, AusNet's cost build up model demonstrates the scale of each innovation project which we consider to be in line with what we would expect from a trial/pilot.

(e) There is stakeholder support for the innovation expenditure

We consider that AusNet has satisfied this criterion.

AusNet's innovation advisory committee expressed its support of AusNet's network innovation proposal.[129] It submitted that its support for innovation proposals is contingent on a number of key aspects of the proposal:[130]

- these aspects include support for the 'use it or lose it' mechanism and an exclusion of innovation from CESS and EBSS
- that the funded projects meet the innovation advisory committee's specific innovation criteria
- that the innovation program overall and individual projects must involve collaboration with other partners, including consumers, industry and academic.

The Consumer Challenge Panel submitted that AusNet has done a good job overall of eliciting customer views for those regulatory proposal components where there was engagement, notably the innovation fund.[131] It also noted that feedback given to AusNet from

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127 AusNet, *Electricity Distribution Price Review 2026-31 Regulatory Proposal*, 31 January 2025, p. 277.

128 AusNet, *Planned projects under innovation fund and demand management innovation allowance (DMIA),* 31 January 2025, p. 4.

129 AusNet's Innovation Advisory Committee, *Submission to the AER on the proposed Innovation Allowance in AusNet Services' 2026–31 Regulatory Proposal,* 14 May 2025, p. 1.

130 AusNet's Innovation Advisory Committee, *Submission to the AER on the proposed Innovation Allowance in AusNet Services' 2026–31 Regulatory Proposal,* 14 May 2025, p. 5–6.

131 Consumer Challenge Panel 32, *CCP32 Advice to the Australian Energy Regulator on the 2026-31 Regulatory Proposal for AusNet Services electricity distribution network*, 14 May 2025, p. 11.

consumers with respect to its draft plan indicated that AusNet had focused on the right things with respect to innovation.[132]

The Victorian Greenhouse Alliances recommends the acceptance of all DNSP's proposed additional expenditure on innovation where evidence of a clear pathway to business-as-usual funding and delivery is provided.[133] It also recommends that the AER develops a new innovation allowance scheme over the next regulatory period that permits distributors to invest in innovation up to an agreed portion of capex (%) that is commensurate with other industrialised businesses. The Victorian Greenhouse Alliances would also require all networks to establish innovation advisory committees using AusNet's innovation advisory committee governance model plus ongoing cross-network information sharing mechanisms.

132 Consumer Challenge Panel 32, *CCP32 Advice to the Australian Energy Regulator on the 2026-31 Regulatory Proposal for AusNet Services electricity distribution network*, 14 May 2025, p. 25.

133 Victorian Greenhouse Alliances, *Submission to the Australian Energy Regulator (AER), Local Government response to the Victorian Electricity Distribution Price Review (EDPR) 2026-31,* May 2025, p. 18.

Shortened forms

Term	Definition
ACS	alternative control service
ADMS	advanced distribution management system
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
augex	augmentation expenditure
capex	capital expenditure
CCP32	Consumer Challenge Panel, sub-panel 32
CER	customer energy resources
CESS	capital expenditure sharing scheme
CoC	cost of consequence
CoF	cost of failure
DMIAM	demand management innovation allowance mechanism
DNSP or distributor	distribution network service provider
DSO	distribution service obligation
EBSS	efficiency benefit sharing scheme
ESV	Energy Safe Victoria
EV	electric vehicle
ICT	information and communication technology
kV	kilovolts
LV	low voltage
NEL	National Electricity Laws
NEO	National Electricity Objectives
NER	National Electricity Rules
NPV	net present value
NSP	network service provider
opex	operating expenditure
PoF	probability of failure
PV	photovoltaics
QCV	quantifying customer values
RAB	regulated asset base

Term	Definition
repex	replacement expenditure
RIN	regulatory information notice
SAIDI	system average interruption duration index
SAIFI	system average interruption frequency index
SAPS	stand-alone power systems
SCS	standard control service
STPIS	service target performance incentive scheme
VCR	value of customer reliability
VNR	value of network resilience