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Infrastructure Victoria Level 33, 140 William St. Melbourne VIC 3000 Locked Bag 14051 Melbourne City Mail Centre Victoria 8001 Australia T: 1300 360 795 www.ausnetservices.com.au

Submitted online via engage.vic.gov.au

#### Victoria's draft 30-year infrastructure strategy 2025-2055

AusNet welcomes the opportunity to provide this submission to Victoria's draft 30-year infrastructure strategy 2025-2055 (the strategy).

AusNet is the largest diversified energy network business in Victoria – we own and operate three regulated networks: electricity distribution, gas distribution and the state-wide electricity transmission network, as well as a significant portfolio of contracted energy infrastructure. We deliver energy to more than 6 million Victorian households and businesses. It also owns and operates energy and technical services businesses (which trade under the name "Mondo").

AusNet is committed to supporting the Victorian Government in the energy transition, including ensuring we have the right policies and regulatory frameworks in place to deliver long term benefits to all energy consumers, consistent with the National Electricity Objectives (NEO) and the National Gas Objectives (NGO).

### Energy resilience is key to climate change adaptation

AusNet supports the strategy's recommendation for the creation of an energy adaptation plan in the 2026 update of the *Built Environment Climate Change Adaptation Action Plan*. We support an adaption plan that embeds and builds upon the findings of the 2022 *Electricity Distribution Network Resilience Review* (Recommendation 27).

The impacts of climate change are being observed in Victoria, with the State's communities, economy, and environment already feeling its effects. Increasing climate events may lead to network outages that are both prolonged and widespread, creating new risks for both our customers and AusNet as a business, as well as changing the profile of existing risks that we already manage. Over the past five years, for example, our customers have been affected by five extreme weather events – the 2019-20 bushfires and the June 2021, October 2021, February 2024 and September 2024 storms – the four largest storms on record. These events highlight that energy businesses no longer operate in a constant environment, and that weather events that cause impacts at scale are increasing in both severity and frequency. This requires a step change in energy businesses' preparedness, response, and recovery from these events to protect the reliability of Victorian power and the ecosystem of essential services that electricity networks sustain.

As Victoria transitions towards increasing electrification and Net Zero, network reliability and resilience will be even more critical as customers become more reliant on electricity alone. Of all the value streams tested in AusNet's Quantified Customer Values (QCV) project,¹ research has shown that customers place the highest value on avoiding prolonged future power outages. Increasingly, customers are also highlighting a reluctance to electrify their gas appliances so that they can continue to be used during electricity outages.² This emphasises the real need to uplift network resilience and reliability to facilitate electrification and meet Net Zero targets.

To do this, we support changes to the regulatory framework in which we operate, such as those recommended in the 2022 Electricity Distribution Network Resilience Review. Among other developments, new obligations are expected to be placed on the Victorian distribution businesses to produce 5-yearly network resilience plans, and

<sup>&</sup>lt;sup>1</sup> https://communityhub.ausnetservices.com.au/research/ausnet-tomorrow-customer-insights-series/advancing-customer-outcomes-through-QCV

<sup>&</sup>lt;sup>2</sup> Not all gas appliances can operate without an electrical supply. For example, ducted gas heating systems that rely on electrical ignition will not operate during an electricity outage. Nevertheless, there are many gas appliances that can operate independently of an electricity supply, which may influence a customer's attitude towards electrification.



the Victorian Government has submitted a rule change request to the Australian Energy Market Commission (AEMC) which, if approved, will add network resilience to our capital and operating expenditure factors.

This will help support the approval of \$226 million of capital expenditure we have included in our 2026-31 Electricity Distribution Price Review (EDPR) Regulatory Proposal. A large proportion of this is to harden our network through investments such as additional switches, hardening poles and targeted undergrounding to reduce the risk that extreme weather events will lead to prolonged power outages.

AusNet is also working to uplift our emergency preparedness and response capabilities, as well as our community recovery and support activities. In response to the February 2024 storm, the Victorian Government commissioned the 2024 Network Outage Review, and we engaged the Nous Group to deliver an Independent Post Incident Review of our operational response. To address the recommendations of both these reviews, we established our Emergency Management Uplift program to increase our operational preparedness and response. This uplift includes activities that increase operational visibility, reduce response times, improve communications with our customers and strengthen the community support we provide. To facilitate this, we are investing in digital solutions and community resources, such as our outage tracker and our Emergency Management Mobile Assistance vehicles (EMMAs) to support communities left without power for prolonged periods of time by severe weather events. AusNet is already implementing many of these uplift activities, and we have proposed significant funding to further bolster our response and preparedness efforts in our 2026-31 EDPR proposal.

While AusNet supports Recommendation 27, we suggest:

- the 2024 Network Outage Review recommendations be embedded into the energy adaption plan. in addition to those made under the 2022 Electricity Distribution Network Resilience Review. The Victorian Government has provided in principle, or in part, support for the 2024 Network Outage Review recommendations, which include support payments during prolonged outages and minimum service standards for feeders. AusNet would welcome continued Victorian Government support for these recommendations through their inclusion in the energy adaption plan.
- support for revenue recovery of network resilience expenditure be included in the energy adaption plan. We support the Victorian Government's rule change request to add network resilience to our capital and operating expenditure factors. This would require the Australian Energy Regulator (AER) to explicitly consider network resilience when setting revenues in regulatory determinations and enable us to continue to make the investments required to uplift our emergency preparedness and response.

### Reform to minimise delivery risk facing large-scale energy projects is sensible

AusNet supports greater coordination of state significant energy projects to better manage project delivery risks (Recommendation 29). Victoria is in the middle of an energy transformation that requires timely coordination of generation entry and exit, new network infrastructure and storage to meet rapidly increasing demand. The Integrated System Plan expects all 4.8 GW of coal to retire by 2033, beginning with 1.5 GW of capacity at Yallourn in 2028. At the same time, renewable developer interest far exceeds the capacity unlocked by planned transmission upgrades due by the end of the decade.

In short, we are in a period of heightened energy reliability risk for Victorian homes and businesses, with a need to demand more from our energy infrastructure to achieve net zero targets.

Given the risks of delays and uncertainty, AusNet agrees there is a role for a state-based energy transition coordinator to:

- Facilitate delivery of enabling infrastructure, services and governmental approvals across different government agencies, and
- Improve coordination between the private sector, developers and governments.

Success will require the coordinator to independently recommend planning activities that build optionality to adjust the pipeline of state significant energy projects at short notice and clearly communicate to all stakeholders



the residual risks Victoria is facing during what may be a disorderly transition. There is an opportunity for a state-based energy transition coordinator to play a leading role to overcome cross government impediments.

Beyond this, we strongly support state reform that seeks to address known delivery risks that cause cost increases and delays for major energy infrastructure. This includes mechanisms the Victorian Government may have available to mitigate against difficulty obtaining land and easements, slow grid connection, supply chain disruptions and cost increases, lengthy environmental approvals and workforce shortages.

In addition, there are opportunities for enhanced state government involvement in supporting initiatives that will positively impact the timely delivery of key energy projects such as those supporting local skills development and retention, roads, telecommunications and, of increasing significance to regional communities in which these key projects are located, appropriately designed and sustainable worker housing.

## Data centres can unlock genuine benefits to Victoria's economy, but only if we plan the energy system for them today

We encourage the Victorian Government to consider opportunities and potential impacts of electricity load growth driven by data centres. Over the last 12 months Victorian transmission and distribution businesses have experienced unprecedented levels of enquiry for data centre connections. AusNet's contestable transmission connections business has an active pipeline of 8 GW, of which 4 GW has reached connection enquiry phase.

Data centres offer significant economic benefits. A typical hyperscale data centre (300 MVA) will result in over \$4 billion of direct investment and create hundreds of jobs during construction.<sup>3</sup> However data centre investors are state and country agnostic. If development is too difficult, data centre proponents will look elsewhere.

AusNet has undertaken a work program to explore how the electricity sector can plan for transmission connected data centres and is actively sharing insights with VicGrid and other relevant stakeholders. We have found several challenges to solve. An immediate challenge is that electricity demand forecasts do not yet capture data centre load 'most likely to eventuate' and are therefore not planning network investment of the speed and scale required to support this load. AusNet has developed a survey-based forecasting framework that includes criteria tailored to data centre load to help overcome this challenge and improve confidence in forecasts.<sup>4</sup>

The electricity sector is also grappling with what changes to existing network planning and connection processes might be required to remove barriers to their connection. For example, what locations are suitable to connect data centres and the extent to which additional generation, beyond that already planned for during the energy transition, will likely be required to facilitate the scale of data centre interest.

### There are further opportunities to streamline environmental assessments for large-scale energy infrastructure

AusNet supports reform to streamline environmental assessments for all large-scale energy projects (Recommendation 30). As a proponent of major transmission infrastructure in Victoria, AusNet has recent experience progressing environmental assessments. We agree that there is a complex framework of Commonwealth and State processes that underpin approvals, and the wide domain of expertise communities and proponents must navigate.

For affected parties, environmental assessments are critical to delivering energy infrastructure which considers and minimises environmental, cultural, heritage and community impacts. For proponents, a positive and timely outcome from these environmental assessments is fundamental to de-risking an important element of the project planning and delivery process.

There is value in streamlining environmental assessments with a focus on future planning, coordination and prioritising approvals without compromising environmental regulation, across multiple levels of government. A

<sup>&</sup>lt;sup>3</sup> Mandala, Empowering Australia's Digital Future, 2024

<sup>4</sup> https://www.ausnetservices.com.au/our-insights/data-centres-when-to-include-them-in-electricity-demand-forecasts



focus on the identification of suitable sites for renewable energy developments, that do not compromise ecosystem function or biodiversity hotspots will aid in the streamline of environmental approvals.

We see opportunities to ensure the overall approvals process makes decisions that are as efficient and timely as possible while maintaining necessary rigour for all affected parties. We suggest:

- Reforms to streamline assessments (e.g. declaration of state significant infrastructure) are explicitly extended to major transmission projects proposed for construction or alteration. It is unclear whether existing or proposed reforms to streamline environmental assessments, for example declaration of state significant infrastructure, are limited to renewable energy and storage projects. We suggest the strategy extend them to all energy infrastructure projects. Without relevant approvals, new transmission projects cannot proceed to construction.
- Establishing standard scoping requirements for all 'federal or state significant' transmission infrastructure
  required to undertake environmental assessments. There is an opportunity for relevant planning authorities to
  issue standard scoping requirements that identify the key matters and environmental risks that should be
  investigated and documented for all federal or state significant transmission projects. This would make
  requirements more consistent and predictable, enabling proponents to develop and commence a study
  program early rather than waiting for a project specific scoping report.
- Defining a standard set of pre-construction preparatory works that can commence in advance of achieving conditions under a Planning Scheme Amendment. In Victoria, pre-construction 'preparatory works' are defined in the Incorporated Document of a Planning Scheme Amendment (PSA). The types of activities include the creation of construction access tracks and platforms, traffic and environmental controls, demolition works, conditions surveys, and cultural salvage works. Project construction could be accelerated by developing a standard set of pre-construction preparatory works under state legislation similar to measures applied for transport projects.
- <u>Supporting the National Renewable Energy Priority List.</u><sup>5</sup> The Federal Government's Priority List provides funding to relevant planning authorities that increases their capaciy and accelerate environmental assessments for identified energy projects from lodgement through to post-approvals. The initiative will help federal environmental assessments to be achieved within statutory timeframes on a regular basis. It may also help accelerate state environmental assessments that do not have established statutory timeframes. We suggest the Victorian Government consider whether there are additional Victorian projects beyond the Priority List that could benefit from additional funding.
- <u>The expansion of the Melbourne Strategic Assessment program</u><sup>6</sup> facilitated by the Victorian Government to streamlines developers' assessment and approvals process, balancing development and the protection of the environment.

#### Continued investment in storage is essential for network security

AusNet supports the continued investment in home, mid-sized and grid-scale (big) batteries by the Victorian Government (Recommendation 31).

In Victoria, rooftop solar penetration is continuing to grow. Approximately 29% of AusNet households have rooftop solar, and we expect this to reach 39% of households by 2031. This increase in the size and quantity of rooftop solar is expected to create challenges for our network, such as power quality issues during the day when solar generation is high, but energy demand is low, and significant reverse power flows and minimum load conditions that will require strengthening of the low voltage network.

In recent months, there has been increased public commentary surrounding investment in home batteries, such as the announcement of a potential federal home battery subsidy. While AusNet supports continued investment in home batteries and the flexibility and control this provides customers, mid-sized batteries connected to distribution networks may provide a more efficient alternative. These batteries can better manage supply within

<sup>&</sup>lt;sup>5</sup> https://www.dcceew.gov.au/energy/renewable/priority-list

<sup>6</sup> https://www.msa.vic.gov.au/for-developers



localised areas of the distribution network and reduce the need for network augmentation. When installed in areas of high solar penetration and managed by networks with expertise in the low voltage network, distribution-connected batteries can more effectively manage excess solar exports, reduce peak demand and regulate voltage on the network.

Distribution-connected batteries – whether owned by networks, commercial third parties or community groups – deliver direct benefits to customers, such as reducing or removing export limits and enabling more solar connections. These batteries also provide economies of scale, which can distribute initial capital costs across multiple households, as well as reducing installation and ongoing maintenance costs. When compared with the high upfront cost of home batteries, distribution-connected batteries can significantly reduce the financial burden of battery access for individual households.

AusNet has already begun trials of community storage tariffs, with our Battery Tariff Trial<sup>7</sup> to be extended into the 2026-31 regulatory period. The trial will help us to better understand how community storage systems will respond to price signals and allow us to better plan and manage our network. We are also exploring other ways to make storage more affordable to all our customers, such an optional two-way consumer energy resource (CER) tariff for small customers, which rewards evening exports. From 1 July 2026, we are introducing a 'Flexible Exports' offer for all new customers, which will allow us to efficiently allocate available network capacity based on the conditions of the network each day. This approach will provide a fairer allocation of export capacity between customers, while also maximising network utilisation and managing minimum demand. Suitable for both solar and battery customers, this offer will create savings for both the individual customer and our broader customer base by reducing the need for network augmentation.

We agree that big or grid-scale batteries can be designed and operated to offer grid-support services that benefit the wider transmission network. We see particular opportunities for the Victorian Government to design long-term contracting solutions that promote BESS to provide these services within Renewable Energy Zones (REZs). Benefits typically fall into three categories:

- (1) **Protecting REZ attractiveness to renewable investors** by improving MLF, ensuring curtailment remains within target range and reducing system strength remediation costs.
- (2) Maximising value from planned REZ network investment by increasing line utilisation during period of low renewable output and releasing existing network transfer capacity from operational constraints to alleviate congestion.
- (3) **Supporting grid stability and reliability** by providing dispatchable energy, voltage control, frequency control and system strength services.

AusNet supports Recommendation 31 and continued investment in home, mid-sized and big batteries. To support this, we suggest:

- The Victorian Government support measures to appropriately capture value that batteries can provide. For example, reviewing whether the existing values used for regulatory purposes (such as the AER's Customer Export Curtailment Value (CECV)), reflect how batteries can increase the value of solar generation by storing it at times when electricity supply is plentiful and prices are low, and discharging it when it is valued at its highest during times of high demand.
- The Victorian Government continue to work with DNSPs, local councils and community groups to enhance planning for battery investment and placement. We support the expansion of the current neighbourhood batteries program until 2030, and welcome continued engagement to understand and map where distribution-connected, mid-sized batteries should be best placed to maximise the benefits to both customers and the network.

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<sup>&</sup>lt;sup>7</sup> https://www.ausnetservices.com.au/community-batteries



• <u>Incorporating grid-scale battery energy storage systems into the selection criteria for REZs,</u> to better manage the variability of renewable energy resources, improve grid reliability, and pave the way for a more cost-effective energy system.

### Progressive and efficient electrification will reduce the impact of the energy transition

AusNet in part supports the strategy's recommendations to prioritise electrification and explore renewable gas options and targets (**Recommendation 33**). However, it is important that the plans consider the broader Victorian energy market context. Specifically, the need for renewable electricity generation investment to align with electrification, and the need for gas transportation infrastructure to transport renewable gases for commercial and industrial users. We support recommendations to increase household efficiency for Victorian households, and strongly support all efforts to address barriers and lower the costs of efficient electrification for vulnerable customers (**Recommendation 34**).

The energy transition and electrification will bring with it challenges for our electricity network. With approximately two million current gas customers across Victoria, switching away from gas towards all-electric homes, as well as the increasing uptake of electric vehicles and solar, will place increasing demand on our electricity networks. This will create challenges, including power quality, overload and reverse power flow issues. We have proposed a number of investment initiatives to efficiently increase network capacity in our EDPR proposal, including: dynamic phase balancing to unlock network capacity; smart monitoring and modelling to anticipate and act on network constraints; flexible CER integration strategies, such as the tariffs outlined above; and upgrading transformers and low voltage cables to handle increasing load demands. We are also observing other adjacent electrification challenges, such as bringing older dwellings and estates up to the standard and capacity required to support increased electricity needs. These will also require significant infrastructure investment to enable the energy transition.

As customers replace gas appliances with electric alternatives, investments in greater energy efficiency within homes, such as those facilitated by Victorian Energy Upgrades program, will play a critical role in further mitigating increased demand and managing network issues. Greater household energy efficiency can reduce demand on the grid, lowing the investment in network capacity required and keeping network costs lower for all customers. More energy efficient appliances will also help to reduce the impact of the energy transition on individual customers, with less energy consumed and lower energy bills.

Through AusNet's **Electri-fair-cation** project, we have gained real-world insights into the cost of electrifying homes at this early stage of electrification, and these can be significant for some customers. Addressing the upfront costs and practical barriers to electrification, particularly for vulnerable Victorians such as low-income households and renters, can help to achieve a fair and equitable energy transition, where all energy consumers are able to benefit in the long term.

AusNet in part supports Recommendation 33 to develop a regional energy plan and explore renewable gas options and targets. However, we suggest that integrated energy planning consider:

• The role that different areas of Victoria will play in the renewable gas value chain. This should consider the location of biomethane feedstock, the location of industrial and commercial gas demand, and what existing infrastructure can be used to transport this gas.

While we support Recommendation 34 to speed up household energy efficiency and electrification for all Victorians, we suggest that the Victorian Government consider:

Support for regulatory mechanisms to de-risk uncertainty in electricity network demand due to rapid changes in Government policy, market sentiment or trends. An example of this uncertainty is the potential for increased electricity demand and/or required expenditure as the result of mandated household or commercial electrification. Managing this risk improves outcomes for both networks and customers, via increased cost recovery certainty for networks and decreased risk of network constraints for customers in the event that network investment has not kept pace with increased demand.

AusNet welcomes continued engagement on *Victoria's draft 30-year infrastructure strategy 2025-2055*, and would be happy to discuss any aspect of our submission further.

Sincerely,

Charlotte Eddy General Manager, Regulation and Policy (Distribution) Tom Hallan General Manager, Strategy and Regulation (Transmission) Moyo Tian General Manager, Strategy and Regulation (Gas)

**AusNet Services** 

### Recommendation 27

Topic/area:	Victoria is resilient to climate change and other future risks
Recommendation name:	Better prepare infrastructure for climate change
Recommendation number:	27
Do you support this topic or recommendation?	<ul><li>✓ Yes</li><li>☐ No</li><li>☐ In part</li></ul>
2. Tell us why	The impacts of climate change are being observed in Victoria, with the state's communities, economy, and environment already feeling its effects. Increasing climate events may lead to network outages that are both prolonged and widespread, creating new risks for both our customers and AusNet as a business, as well as changing the profile of existing risks that we already manage. Over the past five years, for example, our customers have been affected by five extreme weather events –the 2019-20 bushfires and the June 2021, October 2021, February 2024 and September 2024 storms – the four largest storms on record. These events highlight that energy businesses no longer operate in a constant environment, and that weather events that cause impacts at scale are increasing in both severity and frequency. This requires a step change in energy businesses' preparedness, response, and recovery from these events to protect the reliability of Victorian power and the ecosystem of essential services that electricity networks sustain.  As Victoria transitions towards increasing electrification and Net Zero, network reliability and resilience will be even more critical as customers become more reliant on electricity alone. To do this, we support changes to the regulatory framework in which we operate, such as those recommended in the 2022 Electricity Distribution Network Resilience Review. Among other developments, new obligations are expected to be placed on the Victorian distribution businesses to produce 5-yearly network resilience plans, and the Victorian Government has submitted a rule change request to the
	Australian Energy Market Commission (AEMC) which, if approved, will add network resilience to our capital and operating expenditure factors.  This will help support the approval of \$226 million of capital expenditure we have included in our 2026-31 Electricity Distribution Price Review (EDPR) Regulatory Proposal. A large proportion of this is to harden our network through investments such as additional switches, hardening poles and targeted undergrounding to reduce

the risk that extreme weather events will lead to prolonged power outages.

AusNet is also working to uplift our emergency preparedness and response capabilities, as well as our community recovery and support activities. In response to the February 2024 storm, the Victorian Government commissioned the 2024 Network Outage Review, and we engaged the Nous Group to deliver an Independent Post Incident Review of our operational response. To address the recommendations of both these reviews, we established our Emergency Management Uplift program to increase our operational preparedness and response. This uplift includes activities that increase operational visibility, reduce response times, improve communications with our customers and strengthen the community support we provide. To facilitate this, we are investing in digital solutions and community resources, such as our outage tracker and our Emergency Management Mobile Assistance vehicles (EMMAs) to support communities left without power for prolonged periods of time by severe weather events. AusNet is already implementing many of these uplift activities, and we have proposed significant funding to further bolster our response and preparedness efforts in our 2026-31 EDPR proposal.

3. Share any supporting evidence or examples

Research has highlighted customers place the highest value on avoiding prolonged power outages of all the value streams tested in our Quantified Customer Values (QCV) project. Increasingly, customers are also highlighting a reluctance to electrify their gas appliances so that they can continue to be used during electricity outages. This emphasises the real need to uplift network resilience and reliability to facilitate electrification and meet Net Zero targets.

https://communityhub.ausnetservices.com.au/research/ausnet-tomorrow-customer-insights-series/advancing-customer-outcomes-through-QCV

4. Include proposed changes and improvements

While AusNet supports Recommendation 27, we suggest:

- the 2024 Network Outage Review recommendations be embedded into the energy adaption plan, in addition to those made under the 2022 Electricity Distribution Network Resilience Review. The Victorian Government has provided in principle, or in part, support for the 2024 Network Outage Review recommendations, which include support payments during prolonged outages and minimum service standards for feeders. AusNet would welcome continued Victorian Government support for these recommendations through their inclusion in the energy adaption plan.
- support for revenue recovery of network resilience expenditure be included in the energy adaption plan. We support the Victorian Government's rule change request to add network resilience to our capital and operating expenditure factors. This

<sup>&</sup>lt;sup>8</sup> Not all gas appliances can operate without an electrical supply. For example, ducted gas heating systems that rely on electrical ignition will not operate during an electricity outage. Nevertheless, there are many gas appliances that can operate independently of an electricity supply, which may influence a customer's attitude towards electrification.

	would require the Australian Energy Regulator (AER) to explicitly consider network resilience when setting revenues in regulatory determinations and enable us to continue to make the investments required to uplift our emergency preparedness and response.
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### Recommendation 29

Topic/area:	Victoria is resilient to climate change and other future risks
Recommendation name:	Coordinate faster delivery of key energy infrastructure
Recommendation number:	29
Do you support this topic or recommendation?	<ul><li>✓ Yes</li><li>☐ No</li><li>☐ In part</li></ul>
2. Tell us why	Victoria is in the middle of an energy transformation that requires timely coordination of generation entry and exit, new network infrastructure and storage to meet rapidly increasing demand.  We strongly support state reform that seeks to address known delivery risks that cause cost increases and delays for major energy infrastructure. This includes mechanisms the Victorian Government may have available to mitigate against difficulty obtaining land and easements, slow grid connection, supply chain disruptions and cost increases, lengthy environmental approvals and workforce shortages.
Share any supporting evidence or examples	The Integrated System Plan expects all 4.8 GW of coal to retire by 2033, beginning with 1.5 GW of capacity at Yallourn in 2028.
Include proposed changes and improvements	<ul> <li>AusNet agrees there is a role for a state-based energy transition coordinator to:</li> <li>Facilitate delivery of enabling infrastructure, services and governmental approvals across different government agencies, and</li> <li>Improve coordination between the private sector, developers and governments.</li> <li>Success will require the coordinator to independently recommend planning activities that build optionality to adjust the pipeline of state significant energy projects at short notice and clearly communicate to all stakeholders the residual risks Victoria is facing during what may be a disorderly transition.</li> </ul>

### Recommendation 30

Topic/area:	Victoria is resilient to climate change and other future risks
Recommendation name:	Improve environmental assessments and site selection for energy projects
Recommendation number:	30
Do you support this topic or recommendation?	<ul><li>✓ Yes</li><li>☐ No</li><li>☐ In part</li></ul>
2. Tell us why	For affected parties, environmental assessments are critical to delivering energy infrastructure which considers and minimises environmental, cultural, heritage and community impacts. For proponents, a positive and timely outcome from these environmental assessments is fundamental to de-risking an important element of the project planning and delivery process.
Share any supporting evidence or examples	As a proponent of major transmission infrastructure in Victoria, AusNet has recent experience progressing environmental assessments. We agree that there is a complex framework of Commonwealth and State processes that underpin approvals, and the wide domain of expertise communities and proponents must navigate.
Include proposed changes and improvements	<ul> <li>We see opportunities to ensure the overall approvals process makes decisions that are as efficient and timely as possible while maintaining necessary rigour for all affected parties. We suggest:</li> <li>Reforms to streamline assessments (e.g. declaration of state significant infrastructure) are explicitly extended to major transmission projects proposed for construction or alteration.</li> <li>Establishing standard scoping requirements for all 'federal or state significant' transmission infrastructure required to undertake environmental assessments.</li> <li>Defining a standard set of pre-construction preparatory works that can commence in advance of achieving conditions under a Planning Scheme Amendment.</li> <li>Supporting the National Renewable Energy Priority List.</li> </ul>

The expansion of the Melbourne Strategic Assessment program.
Further detail is available within the body of our submission.

### Recommendation 31

Topic/area:	Victoria is resilient to climate change and other future risks
Recommendation name:	Invest in home, neighbourhood and big batteries for more energy storage
Recommendation number:	31
Do you support this topic or recommendation?	<ul><li>✓ Yes</li><li>☐ No</li><li>☐ In part</li></ul>
2. Tell us why	In Victoria, rooftop solar penetration is continuing to grow.  Approximately 29% of AusNet households have rooftop solar, and wexpect this to reach 39% of households by 2031. This increase in the size and quantity of rooftop solar is expected to create challenges for our network, such as power quality issues during the day when solar generation is high, but energy demand is low, and significant reverse power flows and minimum load conditions that will require strengthening of the low voltage network.  In recent months, there has been increased public commentary surrounding investment in home batteries, such as the announcement of a potential federal home battery subsidy. While AusNet supports continued investment in home batteries and the flexibility and control this provides customers, mid-sized batteries
	connected to distribution networks may provide a more efficient alternative. These batteries can better manage supply within localised areas of the distribution network and reduce the need for network augmentation. When installed in areas of high solar penetration and managed by networks with expertise in the low voltage network, distribution-connected batteries can more effectively manage excess solar exports, reduce peak demand and regulate voltage on the network.
	Distribution-connected batteries – whether owned by networks, commercial third parties or community groups – deliver direct benefits to customers, such as reducing or removing export limits ar enabling more solar connections. These batteries also provide economies of scale, which can distribute initial capital costs across multiple households, as well as reducing installation and ongoing maintenance costs. When compared with the high upfront cost of home batteries, distribution-connected batteries can significantly reduce the financial burden of battery access for individual households.
	We agree that big or grid-scale batteries can be designed and operated to offer grid-support services that benefit the wider

transmission network. We see particular opportunities for the Victorian Government to design long-term contracting solutions that promote BESS to provide these services within Renewable Energy Zones (REZs). Benefits typically fall into three categories:

- (1) **Protecting REZ attractiveness to renewable investors** by improving MLF, ensuring curtailment remains within target range and reducing system strength remediation costs.
- (2) Maximising value from planned REZ network investment by increasing line utilisation during period of low renewable output and releasing existing network transfer capacity from operational constraints to alleviate congestion.
- (3) **Supporting grid stability and reliability** by providing dispatchable energy, voltage control, frequency control and system strength services.
- 3. Share any supporting evidence or examples

AusNet has already begun trials of community storage tariffs, with our Battery Tariff Trial to be extended into the 2026-31 regulatory period. The trial will help us to better understand how community storage systems will respond to price signals and allow us to better plan and manage our network. We are also exploring other ways to make storage more affordable to all our customers, such an optional two-way consumer energy resource (CER) tariff for small customers, which rewards evening exports. From 1 July 2026, we are introducing a 'Flexible Exports' offer for all new customers, which will allow us to efficiently allocate available network capacity based on the conditions of the network each day. This approach will provide a fairer allocation of export capacity between customers, while also maximising network utilisation and managing minimum demand. Suitable for both solar and battery customers, this offer will create savings for both the individual customer and our broader customer base by reducing the need for network augmentation.

https://www.ausnetservices.com.au/community-batteries

4. Include proposed changes and improvements

To best support continued investment in home, mid-sized and big batteries, we suggest:

- The Victorian Government support measures to appropriately capture value that batteries can provide. For example, reviewing whether the existing values used for regulatory purposes (such as the AER's Customer Export Curtailment Value (CECV)), reflect how batteries can increase the value of solar generation by storing it at times when electricity supply is plentiful and prices are low, and discharging it when it is valued at its highest during times of high demand.
- The Victorian Government continue to work with DNSPs, local councils and community groups to enhance planning for battery investment and placement. We support the expansion of the current neighbourhood batteries program until 2030, and welcome continued engagement to understand and map where distribution-connected, mid-sized batteries should be best placed to maximise the benefits to both customers and the network.

• Incorporating grid-scale battery energy storage systems into the selection criteria for REZs, to better manage the variability of renewable energy resources, improve grid reliability, and pave the way for a more cost-effective energy system.

### Recommendation 33

Topic/area:	Victoria is resilient to climate change and other future risks
Recommendation name:	Develop regional energy plans, guide transition from fossil gas and maintain reliable gas supply
Recommendation number:	33
Do you support this topic or recommendation?	□ Yes □ No ⊠ In part
2. Tell us why	AusNet supports the strategy's recommendations to develop regional energy plans. However, we see a role for gas network infrastructure to transport renewable gases for commercial and industrial uses.  To take full advantage of production capacity in the best supply areas, biomethane will need to be transported up to 550km from supply sites to reach AusNet's commercial and industrial customers. Recent studies indicate the highest potential supply sites for biomethane gas generation are in the northwest of the state. Meanwhile, our commercial and industrial customers are located across western Victoria. Transporting renewable gas through existing distribution and transmission infrastructure is likely to be the most costeffective way of delivering this gas to customers.
Share any supporting evidence or examples	Future Fuels CRC, Report 2: Identifying the most investable biomethane project sites in Australia, January 2025  AusNet's gas distribution network can already support biomethane gas blends.
Include proposed changes and improvements	Future regional planning needs to consider the role that different regional areas of Victoria will play in the renewable gas value chain. This should consider the location of biomethane feedstock, the location of industrial and commercial gas demand, and what existing infrastructure can be used to transport this gas.

### Recommendation 34

Topic/area:	Victoria is resilient to climate change and other future risks
Recommendation name:	Speed up household energy efficiency and electrification
Recommendation number:	34
Do you support this topic or recommendation?	<ul><li>✓ Yes</li><li>☐ No</li><li>☐ In part</li></ul>
2. Tell us why	The energy transition and electrification will bring with it challenges for our electricity network. With approximately two million current go customers across Victoria, switching away from gas towards allelectric homes, as well as the increasing uptake of electric vehicles and solar, will place increasing demand on our electricity networks. This will create challenges, including power quality, overload and reverse power flow issues. We have proposed a number of investment initiatives to efficiently increase network capacity in our EDPR proposal, including: dynamic phase balancing to unlock network capacity; smart monitoring and modelling to anticipate an act on network constraints; flexible CER integration strategies, such as the tariffs outlined above; and upgrading transformers and low voltage cables to handle increasing load demands. We are also observing other adjacent electrification challenges, such as bringing older dwellings and estates up to the standard and capacity required to support increased electricity needs. These will also require significant infrastructure investment to enable the energy transition.  As customers replace gas appliances with electric alternatives, investments in greater energy efficiency within homes, such as those facilitated by Victorian Energy Upgrades program, will play a critical role in further mitigating increased demand and managing network issues. Greater household energy efficiency can reduce demand of the grid, lowing the investment in network capacity required and keeping network costs lower for all customers. More energy efficient
Share any supporting evidence or examples	appliances will also help to reduce the impact of the energy transition on individual customers, with less energy consumed and lower energy bills.  Through AusNet's <b>Electri-fair-cation</b> project, we have gained realworld insights into the cost of electrifying homes at this early stage of electrification, and these can be significant for some customers.

	and renters, can help to achieve a fair and equitable energy transition, where all energy consumers are able to benefit in the long term.
Include proposed changes and improvements	<ul> <li>Support for regulatory mechanisms to de-risk uncertainty in electricity network demand due to rapid changes in Government policy, market sentiment or trends. An example of this uncertainty is the potential for increased electricity demand and/or required expenditure as the result of mandated household or commercial electrification. Managing this risk improves outcomes for both networks and customers, via increased cost recovery certainty for networks and decreased risk of network constraints for customers in the event that network investment has not kept pace with increased demand.</li> </ul>