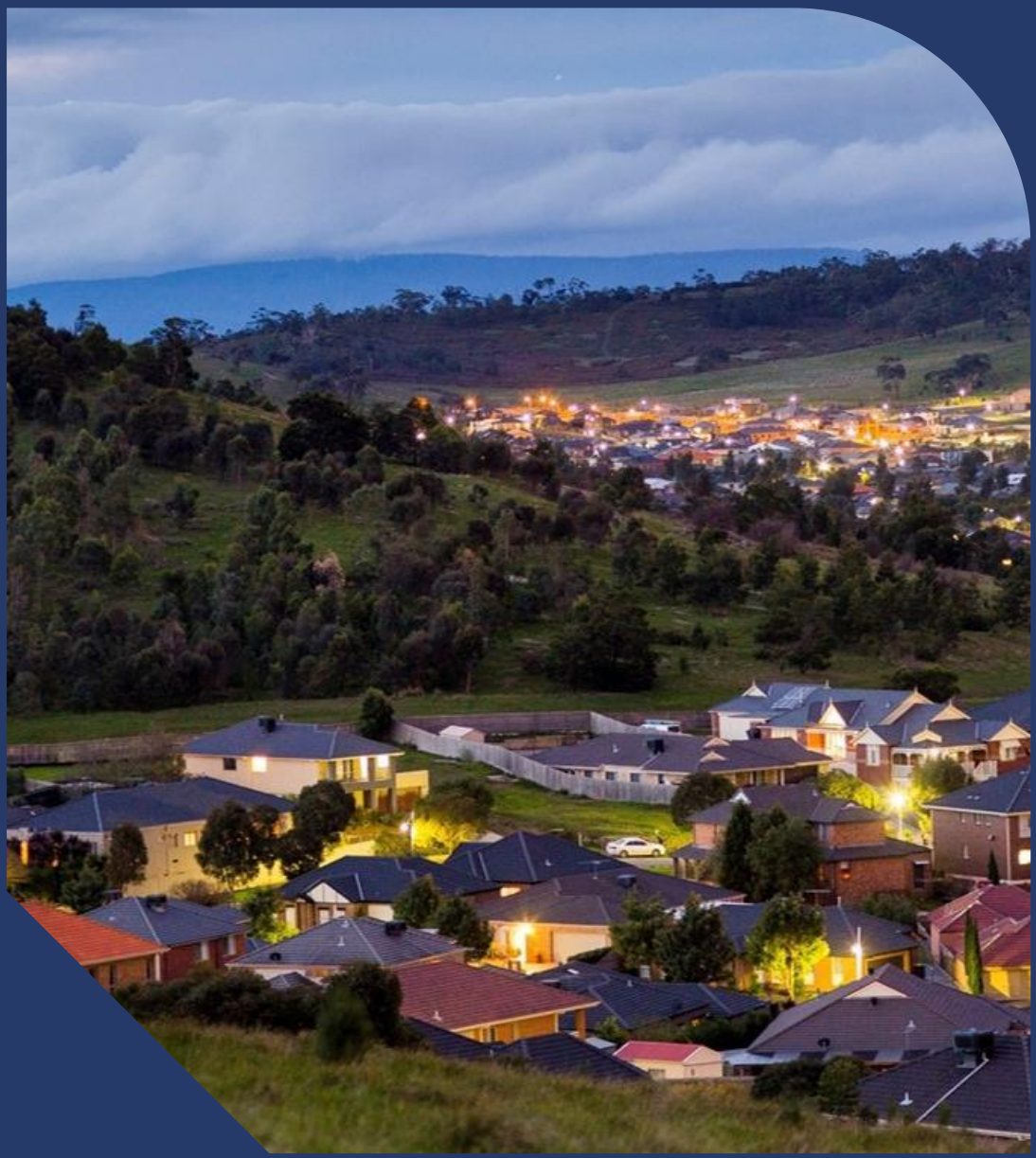
AusNet

Electricity Distribution Network Strategy

2026-2031

Friday, 31 January 2025



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Executive Summary

The energy sector in Australia is undergoing unprecedented changes due to decarbonisation, resulting in a fundamental shift in how electricity is produced and consumed. Given AusNet's unique position as an owner and operator of the Victorian high-voltage transmission network, as well as gas and electricity distribution networks, it plays a central role in the decarbonisation of our state and is ideally placed to enable and accelerate the once-in-a-generation energy transition currently underway.

AusNet's electricity distribution network will look very different in the future as Victoria and Australia decarbonise which will uplift electricity demand and transform the network to manage and integrate an increasing number of small and large renewable energy sources.

AusNet is preparing for this period of unprecedented change and growth over the next regulatory period and its refreshed purpose – ***"to connect communities with energy and sustainable energy"*** reflects this.

AusNet's corporate vision was updated in 2024 and ***is to be trusted to bring the energy today and build a cleaner tomorrow***. AusNet's strategy is focussed across three pillars:

- Safely deliver our customers' energy needs today;
- Create the energy network of tomorrow; and
- Enable the transition to a net zero future.

AusNet's distribution network will play a critical role to enable Victoria's energy future and is at the heart of the energy system in the state. This document, AusNet's Electricity Distribution Network Strategy, outlines priorities to enable customer, network and energy system outcomes. It also outlines critical focus areas for AusNet to accelerate its efforts to support decarbonisation and those of the customers, communities and stakeholders it serves.

With Victoria targeting net zero emissions by 2045, five years earlier than national plans, AusNet has prepared an investment program to address emerging priorities and build the energy infrastructure for ambitious renewable generation and electrification jurisdictional goals. This program reflects the distribution network's role in supporting decarbonisation of both the energy and transport sectors and the priorities of customers, communities and stakeholders. The Network Strategy has been heavily shaped by customers, through an industry leading customer research and engagement program, which underpins AusNet's understanding of customer behaviour, needs and expectations and how it expects these to evolve throughout the energy transition.

Victoria is the fastest growing state in Australia with the population expected to reach 10.3 million by 2051 and much of this will be in the greater Melbourne and regional areas of the state, including within AusNet's distribution network.

Eight investment themes characterise the Network Strategy and these are shown below in Figure 1 below. These investment themes reflect AusNet's critical role to deliver safe, affordable and reliable energy, which remains its core business. AusNet is also responding to mandates, policies and targets to enable load growth and electrification, renewable generation integration and to enable increasing levels of customer energy resources.

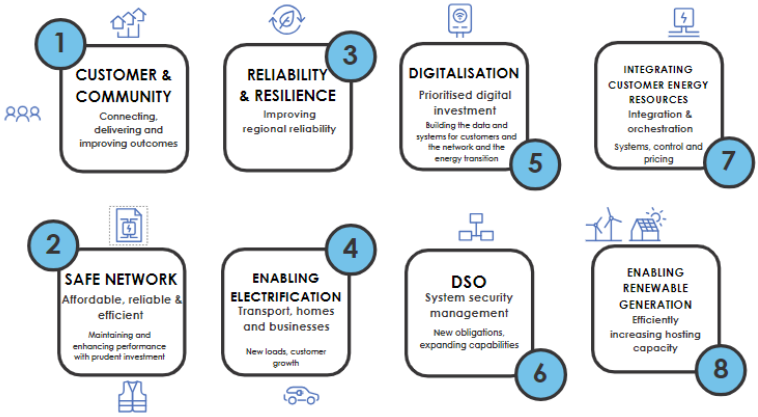

Figure 1 - AusNet's eight investment themes

AusNet is also positioning itself as a critical enabler of broader Victorian energy transition goals and has committed to advocating constructively for regulatory and policy reform that will enable investment aligned to customer needs now and into the future. Finally, underpinning this electricity distribution network strategy are AusNet's related plans for increased investment program, commencing ahead of the 2026-31 regulatory period. AusNet has also restructured its operating model and made changes to key delivery arrangements. It has also developed a strategic deliverability plan and developed plans for a strategic depot reset to take back control of its depots and is proposing to establish a training facility to meet the increasing demand for skilled and capable resources.

1. Victoria's energy landscape is transforming

AusNet's Electricity Distribution Network Strategy has been shaped by a rapidly transforming landscape and in the context of the Victorian Government's ambitious renewable energy and decarbonisation goals.

The Victorian Government has some of the most ambitious emissions reduction targets in the world. It has set a target to reduce Victoria's emissions by 75 - 80 per cent by 2035 and brought forward the date to achieve net-zero emissions from 2050 to 2045, five years earlier than the national target.

AusNet's legacy of managing complex infrastructure and integrating innovative technologies enhances our status as a trusted partner for customers, policy makers and regulators.

1.1. Victoria's renewable energy goals

Aligned to its net zero target, Victoria has also established complementary renewable energy generation and storage targets. Of the total Victorian electricity generated, 65% is to be renewable by 2030 and 95% by 2035.

Victoria has set a storage target to enable renewable energy generation of 2.6GW by 2030, expanding to 6GW by 2035. The announced closure of the Yallourn Power Station in 2028, highlights the need for new renewable generation capacity to be connected in Victoria.

Decentralised generation will also grow, with customers with rooftop solar to be connected to AusNet's distribution network by 2031 to grow by over 20%. AusNet's distribution network will also continue to play a critical role in supporting system security of the overall energy system.

1.2. Electrification

Victoria's net zero policies also require significant levels of electrification across the network. Victoria is the fastest growing state in Australia with the population expected to reach 10.3 million by 2051[1]. Aligned to this, AusNet's customer base is forecast to grow from 814,000 today to 919,000 in 2031 and new electric loads will need to be connected and integrated. This arises from Victoria's consistent population growth, especially in the northern and south-eastern growth corridors of AusNet's territory, the ban on new residential gas connections (which commenced in January 2024) and the commitment to decarbonise other sectors, most notably transport. AusNet is also anticipating an increasing number of connections from large electricity consumers (such as data centres) over the coming years.

In relation to the electrification of transport, Victoria's target is for 1 in 2 new passenger vehicle sales to be zero emission vehicles by 2031. Based on this trajectory, and considering the characteristics of AusNet's network and customers, AusNet is planning for approximately 245,000 electric vehicles to be connected to its network by 2031.

[1] See Victoria in Future (planning.vic.gov.au)

1.3. Customer and community expectations continue to rise

Customer expectations are rising and the enhanced focus on electrification, requires an enhanced focus on network resilience, especially for regional communities.

1.4. Resilience

The growing share of total energy demand from electricity means customers will depend more heavily on continuity of electricity supply. AusNet's distribution network reliability remains a critical focus with new investment needed to make it more reliable and resilient in the context of more frequent and more severe extreme weather events.

The Victorian Government's Network Outage Review final report published in September 2024 has recommended new licence obligations for AusNet's distribution business, furthering the importance of this focus area.

1.5. Prudency and efficiency will guide investment

Meeting the existing and emerging needs of customers and the network in response to energy policy goals requires significant investment. In the context of a challenging cost of living environment, lower socioeconomic areas of the network and remote areas that are costly to serve, AusNet will always be guided by prudent and efficient investment decisions. Importantly, investment for electrification and higher customer growth unlocks increased energy throughput, which provides a hedge to cushion network prices for customers.

2. AusNet's distribution network is at the heart of Victoria's energy system

The energy landscape is changing, and AusNet's electricity distribution network continues to evolve. By responding to the changing operating context, AusNet can deliver more impactful outcomes for its communities and stakeholders and create the foundation for a sustainable future.

AusNet has three regulated networks – electricity distribution, transmission and gas, as well as an unregulated portfolio and therefore plays a unique role in the Victorian energy system and are ideally placed to enable and accelerate the once-in-a-generation energy transition that's underway.

2.1. AusNet's refreshed focus

At an enterprise level, AusNet has updated its vision and purpose. To deliver the new vision, AusNet has simplified its strategy and reframed its strategic pillars with its customers and communities in mind as shown in Figure 2.

Figure 2: AusNet's refresh Purpose, Vision and Strategic Pillars

Safely delivering our customers' energy needs today means AusNet makes value-for-money investments to create resilient, reliable and safe networks and deliver a simple experience that customers can count on.

Creating the network of tomorrow means investing in network and non-network solutions to unlock renewables capacity and consumer energy resources, supporting electrification while responsibly decarbonising.

Enabling the transition to a net zero future means building trust and delivering social value, reducing our environmental impact, and operating efficiently.

The strategic pillars are built on AusNet's foundation – people and safety. These are both critical to delivering our pillars and our vision.

In recognition of the changes to the operating environment, distribution networks have become central to the energy transition and as such are at the heart of the Victorian energy system.

For AusNet, this means the focus on safe, affordable and reliable energy expands to also provide resilience, electrification and decentralised generation enablement services.

3. AusNet's Electricity Distribution Network Strategy

The acceleration of change in the external environment requires AusNet to respond to the new paradigm and meet the needs of its customers, communities and stakeholders.

This Electricity Distribution Network Strategy has been heavily informed by customer research and engagement across AusNet's electricity and gas distribution networks, including both our business as usual (BAU) activities and additional programs. In developing the 2026-31 Electricity Distribution Price Review (EDPR) revenue proposal, AusNet has workshopped with its customer panels key strategic priorities and trade-offs (for example, price vs reliability) to ensure the investments proposed align with customer priorities. This extensive customer research was an input into this Electricity Distribution Network Strategy.

For the EDPR, AusNet co-designed a network aspiration for is electricity distribution network with its EDPR Customer Panel which is to:

1. Provide safe, reliable and secure electricity delivery services, in a world of increasing electrification (transport and gas) and decentralisation;
2. Address emerging priorities – such as resilience, efficiently enabling two-way flows and emissions reduction, and provide customer service that meets customers' evolving expectations; and
3. Facilitate customer and community agency to help achieve diverse energy aspirations while supporting a fair and affordable transition to net zero.

4. AusNet's investment themes

AusNet has captured the transforming energy sector, customer and stakeholder expectations to develop its 2026-31 regulatory proposal. Eight key investment programs encapsulate AusNet's strategic initiatives and key programs as summarised in Figure 3 and is outlined in more detail below.

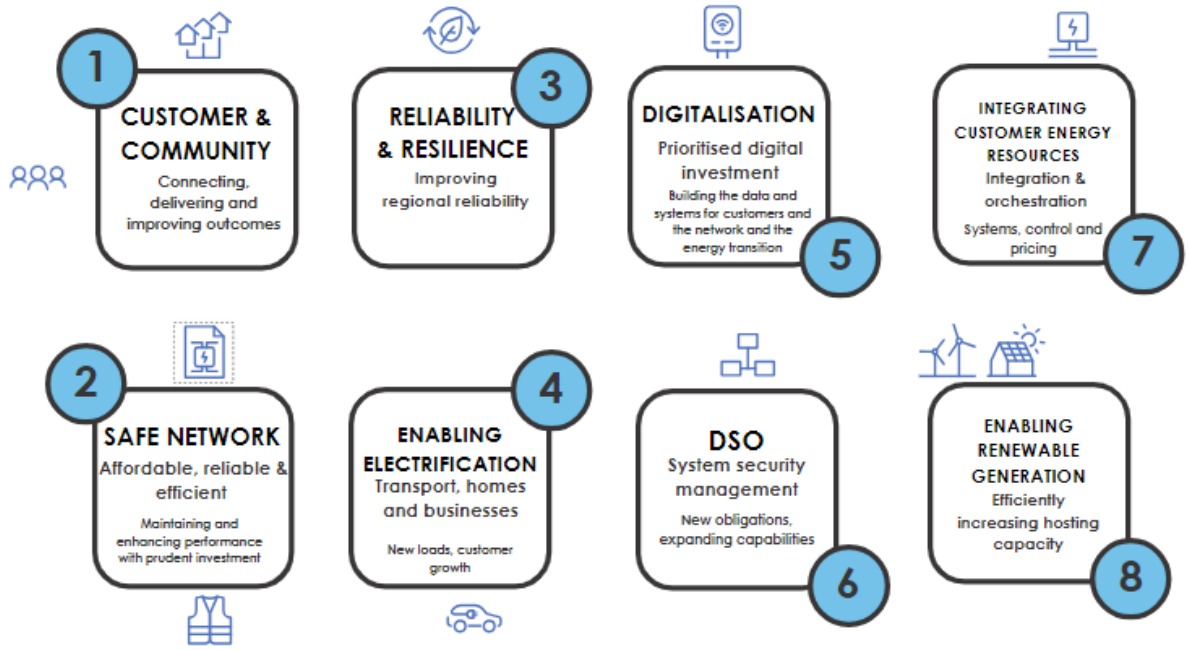

Figure 3: Investment themes for AusNet's 2026-31 regulatory proposal

4.1. Customer and community

Critical to AusNet's Network Strategy is the need to be prudent and efficient across the decisions it makes, given the need for low cost, affordable energy is consistently the number one priority for our customers, as tested via 6-monthly customer research program, known as "Energy Sentiments" (see results in Figure 4).

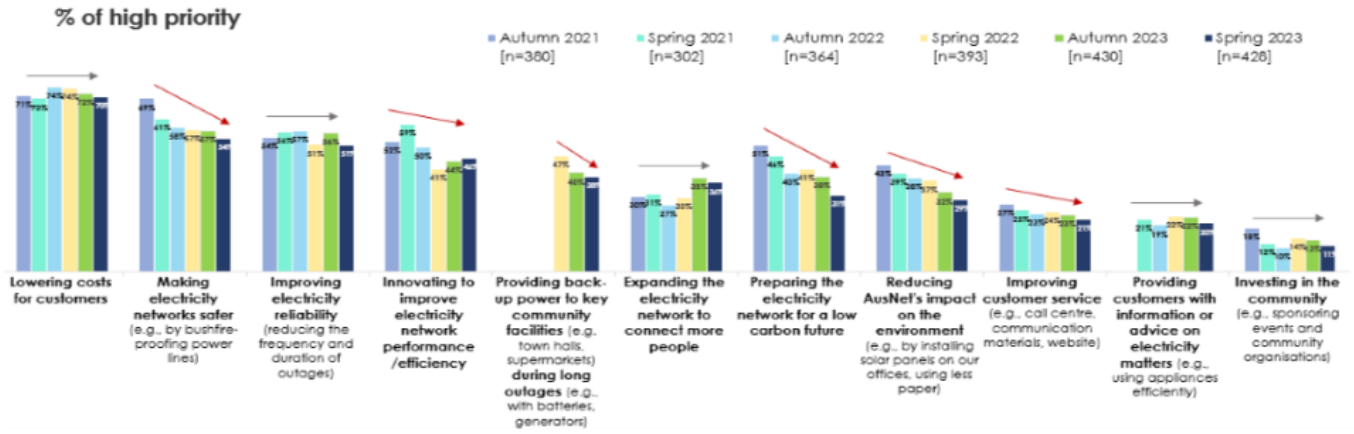

Figure 4: Energy sentiment survey results

AusNet must also deliver on critical priorities related to its core network services, obligations and factors arising from the energy transition to meet the expectations of customers, communities and stakeholders.

Notably, facilitating electrification can contribute to lower electricity bills for all customers, with AusNet's analysis indicating almost flat electricity bills for all households between 2026 and 2031, as well as unlocking further savings for customers investing in residential solar systems and new / updated electric appliances and vehicles.

Metering charges in the next regulatory period will be lower, directly reducing electricity bills and new "solar soaking" tariffs offering customers low-cost electricity from 11am to 4pm each day.

Building on its earlier commitments to customer outcomes in the current regulatory period, AusNet has established clearer accountabilities for customer, continued to invest in extensive customer research and engagement to build its understanding of customers' evolving needs and expectations and addressed customer pain points to focus on making the organisation easier to deal with for customers.

The need to deliver reliable energy for all customers has led AusNet to develop a holistic reliability improvement program which involves investment to improve reliability for all customers and to improve reliability of customers on the worst performing feeders of the distribution network. Reliability investments that are self-funded will be pursued as well as those that have traditionally been challenging to justify under current regulatory frameworks. Improving the reliability for worst-served customers is a key priority based on strong feedback from our customer base, including (but not limited to) regional customers whose clear view is that poor reliability should be uplifted, particularly to facilitate electrification.

AusNet must now also improve the resilience of the distribution network and our customers to extreme weather events (expected to worsen due to climate change), as set out in point 3 below.

In developing the 2026-31 EDPR proposal, AusNet's Customer Panels have identified areas in which the regulatory and policy framework does not support optimal outcomes. This includes weak incentives in the regulatory framework to improve reliability for our worst-served customers and the need for investment decisions to consider a broader range of benefits than are typically included in business cases.

4.2. Safe network management and operations

Safety has always been a critical priority of AusNet's network management and operations. Over the period 2021 to 2026, AusNet delivered priority safety programs for bushfire risk reduction such as the rapid earth fault current limiter (REFCL) program and key zone substation replacement programs.

For the regulatory period 2026 to 2031, the distribution network will continue to maintain and improve safety and reliability performance while also enabling unprecedented growth in new and decentralized generation, load and customer energy resources (CER). Meeting all compliance obligations remains a critical focus, including new system security obligations that arise due to the characteristics of renewable generation.

AusNet has leveraged its capability in risk-based asset management and developed an optimised replacement investment (repex) program which focuses on expenditure that is driven by our ageing asset base and deteriorating asset condition and, therefore, is necessary to address the risk of asset failure and maintain network performance. AusNet's asset management investment approach is guided by an externally validated asset management strategy and framework, significantly aligned to the international standard for asset management (ISO 55001). Having previously achieved certification of its asset management framework, AusNet is committed to achieving ISO 55001[2] certification in the future.

Repex needs are forecast to increase in the next regulatory period, due to an ageing asset base/ deteriorating asset condition and market-driven cost pressures, which are driving both higher replacement volumes and unit rates for some asset classes. This increase is necessary to maintain network risk and avoid a deterioration in reliability, consistent with our customers' preference for stable or improved levels of reliability. As our customers electrify their homes, businesses and transport, maintaining the reliability of the existing network through prudent asset replacement is becoming increasingly important.

Historically, increases in distribution network capacity have been triggered by forecast increases in demand, with the majority of generation being connected to the transmission network, whereas the 2024 Integrated System Plan (ISP) from the Australian Energy Market Operator (AEMO) in its "Step Change" notes "this scenario relies on a very strong contribution from consumers in the transformation, with rapid and significant continued investments in CER which are highly orchestrated through aggregators or other providers with the benefits passed on to consumers."

[2] ISO 55001 Asset management – Management systems – Requirements is a standard developed for asset management by the International Organization for Standardization (ISO).

Now distribution networks are playing a significant role as a platform to connect distributed renewable energy projects which supports Victoria renewable generation targets. Network management is now focused on planning, managing and maintaining a network for two-way flows. Investment will increasingly be triggered from forecast generation growth, as well as load growth.

Two-sided network management requires more dynamic management of the network voltage profile, especially at the low voltage level and therefore more sophisticated strategies to manage power quality for customers.

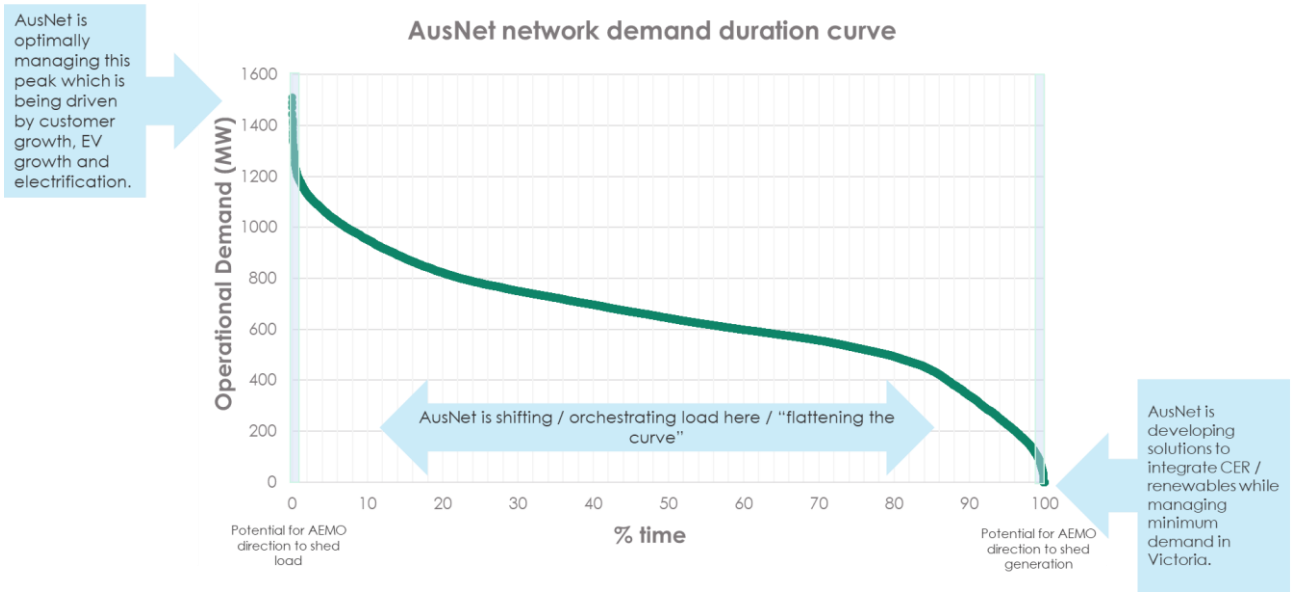

Figure 5: Demand duration curve for AusNet's distribution network

As a result, AusNet is required to operate a network that has sufficient capacity to meet very short duration network and localised peak demand, as well as mitigating for the challenge of minimum system demand, where system security is compromised, and generation has to be curtailed. This is shown in Figure 5, which shows the two-sided network operational paradigm and the need for co-ordination with the Australian Energy Market Operator (AEMO).

4.3. Reliability and resilience

AusNet is at the forefront of the need to build network and community resilience to prolonged power outages which are expected to become more frequent and severe due to climate change and which could also arise from other factors such as cyber incidents. AusNet's distribution network was severely impacted by very large storm events in June and October 2021, February 2024 and September 2024, with some customers experiencing outages lasting longer than a week, and a very high degree of government and media scrutiny over the course of the event and restoration processes.

AusNet has developed a holistic approach to build resilience to prolonged power outages of our communities and our network, comprising proactive and responsive education and communication, targeted investment and operational measures.

An optimised program of expanded and new solutions has been developed to make assets less susceptible to issues around vegetation, animals and weather (e.g. covered conductor, undergrounding and animal proofing), adding more automatic circuit reclosers (ACRs)/ sectionalisers and stand-alone power systems (SAPs) – providing a reliable off-grid power supply and enabling community energy solutions.

Increased support during prolonged power outages will be provided through increased on the ground presence of AusNet staff, investing in plug and play generator points to support community hubs and continuous improvement in customer communications, including via text messaging. Partnering with other critical infrastructure providers, such as telecommunication providers, to increase connectivity of our communities is another key part of our approach.

Ongoing and acute challenges with regional reliability is also an issue AusNet is focused on addressing, to ensure it is meeting the expectations of customers and communities and supporting prosperous futures. Currently there is a large disparity in reliability outcomes across the network explained by the economic approach embedded in the regulatory framework. This does not provide strong incentives to invest in reliability improvements where only a small number of customers benefit. However, with the energy transition underway, it is unlikely that current reliability levels will remain acceptable going forward.

AusNet has identified reliability improvement projects on its worst served feeders in consultation with its external stakeholders (and formally, its Availability Panel). Customers on these feeders typically experience 12-28 hours of unplanned outages per year, compared with the network average of 1-2 hours.

AusNet's proposed investments align to the Victorian Government published its Network Outage Review Final Report which was published in September 2024. This report finalised the review of transmission and distribution networks' operational response to storms in February 2024. The final report included a set of 19 recommendation and 12 observations for industry consideration.

The report included key recommendations that the Victorian Minister for Energy and Resources apply a licence condition for AusNet's distribution business to achieve the following:

- Improve the reliability of specified feeders (by December 2024);
- Install network connection points to enable rapid installation of temporary generation in key township locations (by December 2024); and
- A minimum service level standard be introduced for Victorian distribution feeders, which if breached, requires remediation by the relevant distribution business where the service level standard must account for customers' experience of prolonged power outages (by June 2025).

4.4. Enabling electrification

AusNet's electricity distribution network will look different in the future as Victoria decarbonises which will uplift electricity demand and transform the network to manage and integrate an increasing number of renewable energy sources. As the availability of electricity infrastructure will be a core enabler to this transformation, AusNet will require a considerable increase in network augmentation across traditional 'poles and wires' and new, non-traditional investments and non-network solutions in the next regulatory period.

With Victoria banning new residential gas connections and adopting new 7-star home building regulations, electricity is becoming more essential to customers, particularly for new dwellings. For example, the Victorian Government's current gas substitution roadmap[3] includes initiatives to:

- Ensure that, from July 2023, all new government buildings are to be built all-electric, including new schools and hospitals;
- Mandate that all new homes requiring a planning permit must be all-electric from 1 January 2024;
- Require mandatory 7-star efficiency standards for new home construction from May 2024; and
- Expand the Victorian Energy Upgrade (VEU) program to include induction cooktops.

AusNet is also seeing signs of Victorian customers choosing to switch from gas to electric appliances, evidenced by its own customer research and objective data from both its gas distribution network in western Victoria and electricity distribution network in eastern Victoria. This has the potential to both increase and change the time of peak electricity demand, as has been seen in the Australian Capital Territory, which will change the way we manage the network.

Driven by the Victorian Government's Zero Emission Roadmap and target of 50% of new light passenger vehicle sales by 2030, AusNet has a critical role to enable customer and Victorian government outcomes as transportation is electrified. For AusNet's our distribution network, electric vehicle growth forecasts show there will be 245,000 EVs using our network by 2031, rising from 11,000 in 2024. This will result in an increase of five per cent of peak operational demand by 2031.

Electrification of homes and transport will enhance network utilization and also trigger the need for new investment so customers can continue to enjoy a safe and reliable electricity supply. Longer term, this could lead to significant changes in the topology of our network, to ensure that higher capacity is available to support full electrification of many households and businesses. AusNet is also currently engaging in studies which are exploring the future of its single wire earth return (SWER) networks in Victoria.

Network charges will see downward pressure from the increased throughput of electricity through the distribution network, as well as unlocking further savings from customers investing in electrification and/or their own customer energy resources (CER).

To provide a fit-for-purpose response to the electrification challenge AusNet has established its demand-driven network augmentation program. The program is designed to ensure that the electricity distribution network can handle the expected increase in demand from electrification and customer growth. AusNet's customer base is expected to grow by over 90,000 new customers which will be connected to its distribution network by 2031.

[3] See Victoria's Gas Substitution Roadmap

4.4.1. Demand driven augmentation

Maximum demand growth over the 2026-31 regulatory period combined with anticipated higher utilisation is forecast to cause constraints in AusNet's network that require augmentation over the 2026-31 regulatory period.

AusNet's customer base is forecast to grow steadily by around 1.7% per annum, in line with the Victorian Government's forecasts, which is lower than actual growth of 2.1% per annum in the 2022-26 period. Energy use from the network is expected to increase and a key reason for this growth is the impact of electrification which will offset declines from continued energy efficiency and increasing solar generation that offsets underlying energy growth.

Maximum demand is forecast to grow at approximately 2% per annum, reflecting the underlying increase in electrification and recognising that maximum demand is likely to occur when solar generation declines late in the day.

AusNet has a long history of probabilistic planning which increases network utilisation and keeps network charges low. The demand driven augmentation forecast is also consistent with AusNet's tariff strategy. Combined with the uncertainty over whether retailers will pass on the network tariff signal, which restricts the amount of tariff engagement and response that we can realistically employ. AusNet's demand forecasts are conservatively low to avoid over-investment during a period of heightened uncertainty, and it has achieved this by leveraging its in-house forecasting tool, designed for AusNet's specific needs.

To respond to demand driven investment needs, AusNet:

- Is proposing a new zone substation (ZSS) in the Wollert area as one of the existing zone substations serving the area – Kalkallo ZSS – is forecast to be overloaded under system normal conditions which means that an urgent solution is needed to avoid power outages or curtailment.
- Has proposed a new ZSS in the Pakenham South area as an existing zone substation serving the area is forecast to be overloaded. AusNet assessed several credible solutions, including non-network alternatives such as network support, and its assessment concluded that a new ZSS has the highest net benefit to consumers as it avoids expected unserved energy risk compared to do-nothing, and it allows for future growth.
- Will invest in its Low Voltage (LV) network to address growing forecast increases in constraints due to the electrification from gas-to-electricity and the uptake of EVs. Our proposal will allow for the upgrade of distribution substations which will unlock LV capacity to allow for electrification. The LV augmentation forecast excludes capex that can be deferred by flexible services offerings, reflecting an efficient capex / opex trade-off.
- Address constraints in several feeders, sections of its sub-transmission network and stations which are forecast to increase over the 2026-31 period making it economic to construct three new 22kV feeders, augment two 66kV loops and install a new transformer at Wonthaggi ZSS.

4.5. Digitalisation

Data and digital systems are critical for the management and operation of the network on behalf of AusNet's customers. AusNet will invest to deliver digital capabilities to enable customer and network outcomes and that drive efficiency for both customers and the business.

In the face of the transformative forces impacting our network and the energy sector more broadly, AusNet has developed a digital strategy that allows it to continue delivering for our customers, meeting the evolving expectations of the communities it serves, and fulfilling its obligations as a licensed DNSP, while remaining resilient to the changes affecting the energy sector. AusNet's digital capex proposal puts customer outcomes at the centre of our investment plans. It includes a Customer Information Management program that will provide more personalised and tailored customer service, a very strong and consistent theme from our customer research, particularly from business customers.

Increased complexity of the operational environment (including two-way energy flows, stand-alone power systems, network growth and the heightened need for rapid restoration during unplanned outages) requires smarter operational technologies to enable better network visibility and more effectively manage the network.

Therefore, AusNet's digital approach has five clear objectives:

- **Enabling the continued functioning of operations -** to ensure systems are up-to-date, robust, scalable, and aligned with business and regulatory requirements to support reliable service delivery;
- **Enhancing customer systems** - to save time for our customers and enable AusNet to provide more tailored services;
- **Modernising network control capability** - to help respond efficiently to events on the network, and enhanced integration of distributed energy assets;
- **Uplifting consistency and quality of data** – to optimise business processes and enable advanced analytics;

- **Enhancing asset management systems** – to manage network assets efficiently and mitigate risks; and
- **Increasing the capability of our field operations** - to speed up restoration times and optimise planned works in a time and cost-efficient way.

Managing cyber security risks continues to be a key focus in the context of an escalating risk from sophisticated attacks. AusNet is committed to the highest maturity in cyber security and maintaining its Security Profile 3 (SP-3) rating.

4.6. Distribution System Operator (DSO)

AusNet's DSO role has emerged clearly within the current regulatory period with the Victorian government mandate to have all new residential solar systems connected to a low-voltage distributed energy resource management system (LV DERMS) from Victoria's mandated emergency backstop mechanism for solar[4]. This requirement commenced on 1 October 2024 and each year, approximately 13,000 residential customers will connect to this system and receive dynamic information related to their own CER investments. This capability will need to be scalable to integrate other inverter-based systems such as electric vehicle supply equipment (EVSE) and other new smart energy appliances.

The distribution network will be planning, operating and managing two-way flows on most of its assets (especially transformers, meters, lines, feeders and service wires) and playing a critical role as a Distribution System Operator (DSO) to manage system security in co-ordination with the Australian Energy Markey Operator (AEMO).

As a DSO, AusNet will also seek to engage with third parties for least cost network service procurement and is already committing to publishing more information about network opportunities as well as the ability to consider both capital and operating expenditure solutions to satisfy identified network constraint needs. AusNet will seek third-party network service provision and contract with aggregated resources to manage localised network constraints where it is feasible and prudent to do so.

AusNet's holistic DSO and CER integration approach will optimise the investment needed for network upgrades, create new opportunities for third party provision of network services and realise system and customer benefits and is summarised in Figure 6.

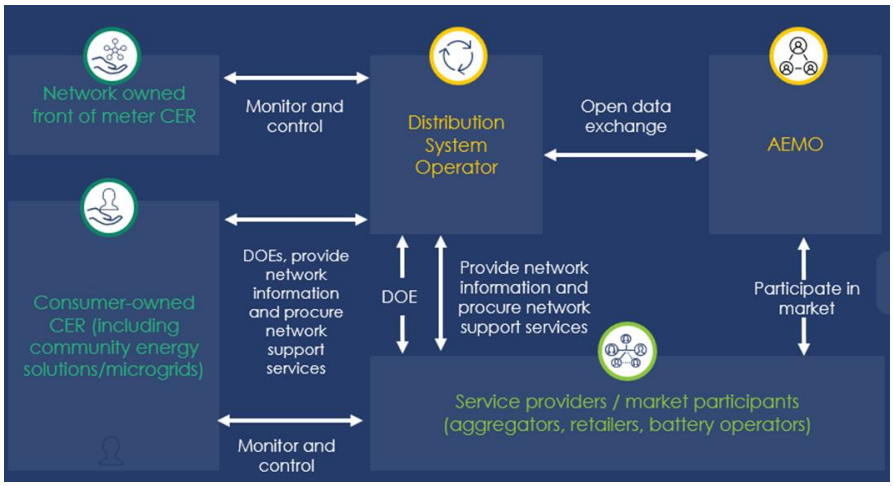

Figure 7: AusNet DSO interfaces

4.7. Integrating customer energy resources (CER)

Customer Energy Resources (CER) have grown to become a significant source of supply and flexible demand in Victoria's overall energy system.

[4] See https://www.energy.vic.gov.au/households/victorias-emergency-backstop-mechanism-for-solar

AusNet's has developed a CER integration Strategy which sets out its objectives for effective CER integration into the grid and the whole energy system.

CER is defined as rooftop solar, batteries connected to the distribution network, electric vehicles and electric vehicle supply equipment, flexible loads (e.g. batteries, controllable hot water systems), stand-alone power systems (SAPS) and microgrids. All of these resources combine network, generation and demand, typically with the opportunity for co-ordination and communication between devices and customer, third-party and distribution network platforms.

The CER integration strategy outlines:

- Investment required to unlock benefits for all AusNet customers and electricity users today and into the future;
- AusNet's ongoing transition to the role of managing and enabling CER as a Distribution System Operator (DSO); and
- AusNet's integrated approach to services and tariffs AusNet will offer to enable customers to maximise the value from their investment in CER.

In addition to customer investments, regulatory and policy developments are accelerating the growth of CER on distribution networks. This includes, (but is not limited to):

- Current and emerging requirements to support overall system security;
- Access and pricing rules;
- Frameworks to enable and publish dynamic operating envelopes (DOEs) to customers;
- The regulatory framework for SAPS and flexibility services for customers;
- Data sharing between customers, networks and the system operators; and
- Protocols and arrangements for communication and co-ordination of CER.

AusNet is committed to allowing customers to maximise the benefits of their investment in CER, while also ensuring fair outcomes for all customers and will facilitate effective CER integration in the following ways:

- **Residential solar systems** – prudently investing in network upgrades to maintain voltage compliance and when the market value of additional exports exceeds the upgrade's cost;
- **Batteries** - developing an opt-in tariff structure that will reward battery owners for their flexibility, by making an export payment in constrained areas of the network during peak times;
- **Electric vehicles** – by 2031, 245,000 electric vehicles will be connected to the distribution network. As the primary way to mitigate peak demand growth, AusNet will continue to assign electric vehicles to cost reflective time of use tariffs (as mandated by the Victorian Government) to signal the higher network cost impost of charging during peak times. Expanding on its electric vehicle trials, AusNet will also explore flexible connections to allow customers to opt-in to lower cost connections and/or upgrades and/or tariffs if they have the flexibility to enable AusNet to control their charging to support the needs of the network, however there are no plans to require this; and
- **Energy literacy communications campaigns** to ensure customers are aware of how they can leverage their CER investments to the benefit of themselves as individuals and all energy customers.

4.7.1. Innovation

for the 2021-26 regulatory period, AusNet co-designed an Innovation Fund with its Customer Forum, and established an Innovation Advisory Committee (IAC) for the projects funded through the fund. Representatives from the other Victorian distribution businesses sit on the IAC as a means to share learnings across industry.

The Innovation Fund funded key projects such as the Flexible Exports trial, which delivered significant learning for the business and the industry, allowing AusNet to scale up this service offering the future and influence policy and regulatory reform on Flexible Exports in Victoria and nationally.

IAC members also came up with the "ElectriFAIRcation" trial which AusNet agreed to fund as part of the innovation portfolio. This trial funds electrification of 50 to 60 vulnerable customer homes (including tenanted properties) so we can learn about the customer impact and the network impact of electrification for this customer cohort and housing stock (relatively low quality). AusNet is partnering with other organisations to deliver this trial and the learnings are being shared broadly, including with Government.

AusNet continues to focus on innovation to deliver improved customer and network outcomes, especially as the overall energy system continues to transform. AusNet is proposing to continue funding innovation via a dedicated fund over the 2026-31 period, supported by the same governance arrangements. The projects to be pursued include flexible demand in homes, vehicle to grid (V2G) for resilience, CER customer toolbox, alternative storage technologies and leading-edge network modelling.

4.8. Enabling renewable generation

To provide a fit-for-purpose response to the growth in renewable generation, AusNet has established its "Connections Enablement" program, to unlock more renewable generation hosting capacity on its distribution network. The program represents innovative solutions to unlock more large-scale renewable energy sources on AusNet's sub-transmission 66kV network.

AusNet's distribution network is already hosting 1.7GW of generation, (approximately 9 per cent of total Victorian installed generation capacity of 19.6GW[5]). By 2031, this this will increase significantly, driven by Victorian renewable generation goals and a significant pipeline of renewable generation projects seeking connection.

4.8.1. Large scale renewable generation enablement

Distribution networks manage the sub-transmission (66kV) network—the highest voltage part of the distribution network connected to terminal stations. We are seeing increasing connection requests for renewable generation and storage in this part of the network, as a close alternative to transmission network connections. However, many parts of the sub-transmission network are constrained, which means generators face prohibitive costs to connect, often stalling any further connections in that area. This is because under the current framework for generator connections, if a generator requests a connection and the network is constrained in that area, they are responsible for the cost of augmenting that part of the network. In the sub-transmission network, that could include a requirement to replace a feeder, which could cost millions of dollars.

Additionally, recently the National Electricity Objective (NEO) was updated to include an objective of reaching national and state government targets for emissions reductions, or related target such as renewable generation. This recognises the important value of fast and efficient renewable generation connections, to allow Net Zero targets to be met on time.

An optimised connections enablement program has been developed to strengthen 66kV networks and enable more renewable generation to be connected.

AusNet proposes to unlock capacity in its sub-transmission network to enable more renewable generation and storage, in areas where the benefit of those investments outweighs the cost. The investment is designed to enable almost 1GW of renewable generation, reduce greenhouse gas emissions and while also reducing wholesale electricity prices in the long term. Specifically, we have identified four projects that are expected to deliver these benefits for customers, three of which are already progressing through the regulatory investment test for distribution (RIT-D) process.

4.8.2. Small scale renewable generation enablement

Of its 817,000 customers, approximately 192,000 have solar or 1 in 4. Installed solar generation capacity of 1.1GW already represent 134 per cent of average network demand. Similar to the rest of Victoria, this growing level of distribution network connected generation is having an impact on overall system security. To mitigate the challenge of minimum system demand for Victoria, requires the ability to reduce generation as directed by AEMO. This will see AusNet investing to manage residential solar systems flexibly, progressing its advanced distribution management system capabilities and moving towards more dynamic management of key network and customer parameters such as voltage and power quality. The need to assign dynamic operating envelopes to the connection points will also be coupled with new capabilities to manage large scale generation output through a high-voltage distributed energy resource management system (HV DERMS) capability.

4.9. Delivering the strategy

With an uplift in the investment required to deliver the network strategy, AusNet has developed a Strategic Deliverability Plan (SDP) document to successfully deliver the 2026-31 work plan. This details the processes, strategies, plans and initiatives AusNet has in place to deliver on its business objectives, prioritise communities and customers and as part of these longer-term goals, ensure its works programs are feasible and deliverable.

The plan recognises a significant forecast increase in capital investment compared to actual and expected expenditure in the current regulatory period. (This increase is driven by both price increases and the need to deliver

[5] As at July 2023, see 2023-victorian-annual-planning-report.pdf (aemo.com.au)

more work to meet our customers' expectations and the requirements of the energy transition, including enabling government policy targets to be met).

Work volumes have been gradually increasing prior to 1 July 2026, enabling AusNet to increase resources gradually over time and have plans in place as to how we will continue to build the efficient level of resourcing necessary to deliver our forecast works program. The plan outlines key responses across the following areas: labour, supply chain, digital enablement, digital delivery, outage management and depots.

4.9.1. Resourcing considerations

Resourcing requirements have been factored into the Strategic Deliverability Plan and were assessed (for both labour and materials) for the proposed works underpinning the 2026-31 expenditure forecasts. This was presented at a category level and demonstrated AusNet is well-placed to deliver its forecast works program. AusNet does not anticipate labour supply shortages over the 2026-31 period due to actions it has taken and will continue to monitor and adjust plans accordingly. AusNet has also taken action to mitigate material shortage risk.

Key elements of the resourcing review and associated responses are described as follows:

4.9.1.1. Labour

- A review of external labour supply and demand shows an increasing number of distribution lineworkers will be required. To secure these additional resources, AusNet is taking several actions including:
    - Change in primary delivery partner to ensure more control over key operational resources (including Digital field mobility solutions), enabling us to make strategic investments to increase productivity;
    - Secure access to additional labour resources with other providers. An additional eight field worker suppliers have been engaged to increase the pool of resources available to complete the distribution works program from 2024;
    - Underwriting delivery partner apprenticeships;
    - A strategic depot reset involving targeted relocations, major renewals and strategic upgrades to enhance site functionality, accessibility and future readiness, aligning with AusNet's long-term goals and uplifting the condition of depots to a standard that assists with attraction and retention of the regional workforce;
    - Investment in renewing a lineworker training facility to accommodate training of additional resources, for the distribution network;
    - Exploring further opportunities with the Victorian Energy Supply Industry (VESI) Electrician to lineworker (E2L) program; and
    - Remaining an active voice with government and industry to support broader initiatives to increase workforce capacity over the medium to long term.

4.9.1.2. Supply chain

- The successful delivery of the projects included in the regulatory proposal is contingent on the timely and efficient procurement of required materials and equipment. In recent years, high global demand for materials associated with network upgrades has resulted in supply chain shortages and longer lead times. This has necessitated focus on procurement practices to manage deliverability risks related to materials supply including:
    - Materials required for the proposed works include 11 materials with lead time risk. Strategies and material -specific plans are in place to mitigate these risks - including formalising key supplier relationships, increasing AusNet's attractiveness as a customer and simplifying procurement business processes. These plans are continuously reviewed and adapted as required to reflect changes in our operating environment and requirements.
    - Whilst AusNet does prioritise sourcing from Australian based manufacturers to support long term industry security, when sourcing materials from overseas AusNet seeks vendors from disparate global geographies as a hedge against risks such as trade sanctions, conflicts or epidemics. AusNet's preferred contracting method is period order contracts which establish supply agreements for three-to-five-year periods. As a further hedge against risk, AusNet has increased inventory stockholding of key materials and when planning capital works, purchases are made at an extended lead time in case of logistics issues.

4.9.1.3. Digital enablement

- Digital enablement initiatives to support better works management will improve the productivity of resourcing through optimising delivery of works. This will help minimise required resourcing, lowering costs to customers and supporting the delivery of increased works programs across AusNet and other energy businesses required to support the energy transition; and

- Key initiatives included in AusNet's Digital expenditure forecast, such as Field Enablement, Network Models and Asset Management are central to these efforts.

4.9.1.4. Digital program deliverability

To optimise delivery of AusNet's digital works program, it has in place:

- A strategic partnership model with IBM and Wipro, enabling flexible scaling of resources to meet project needs; and
- Complementary in-house teams to ensure effective coordination and streamlined delivery performance.

4.9.1.5. Outage management

- Increased complexity and volume of works during the next regulatory period could have a significant impact on customers (long and multiple outages) presenting a potential barrier to delivery that will need to be managed closely. Along with extensive community consultation, pipeline visibility programs and alternative delivery method reviews (to minimise customer disruption) are underway and will ensure risk to project delivery is minimised.

4.9.1.6. Organisational structure

- AusNet has restructured to put in place end-to-end accountability for the outcomes of each of its network businesses, supported by functions that can leverage the scale and scope of AusNet's activities to position it well for securing required resources.

4.9.2. Supporting business roles

Business roles that will support the delivery of the program of work are generally more transferrable across sectors and can be increased gradually as required. As assessment of demand has been carried out through consultation with key teams, supplemented by external research on known supply focus areas, for example, engineering.

With the increased volume of work, it is recognised that supporting roles need to be monitored and expanded, as appropriate. The AusNet enterprise resource monitoring will continue to determine roles of supply concern and/or increasing demand and determine estimated resourcing gaps and initiatives to address. Critical non-field roles under consideration include:

- **Engineering:** Current national shortfalls are expected to continue as demand for engineering capabilities grows in the energy sector. Clean Energy Australia classifies the supply of Electrical Engineers as 'Demand is not being met consistently and skill shortages exist in most regions' (CEC Skilling the Energy Transition 2022). Jobs and Skills Australia projections include a significant projected employment growth for Electrical Engineers from 2023 to 2033;
- **Network Control Room Resources:** Real-time control and operation of energy infrastructure, requires extensive understanding and knowledge of the switching arrangements, management of field operations and works around electrical assets, and managing outages, faults and repairs. Proficiency in these roles requires months and often years of training; and
- **Community and customer engagement:** Securing highly skilled customer and community focussed teams will be a key success factor for projects interfacing with communities such as Community Resilience Hubs and complex works that will require extended outages, such as the 66kV loops. Early planning to understand and minimise community impacts and extensive community consultation and engagements will be required prior to the execution of works to ensure community acceptance.

Other workforce roles and capabilities that will continue to be monitored for criticality and potential delivery impacts include, but are not limited to designers, communications engineers and architects, planning and forecasting, network asset planning and management, connections and customer works, legal and contracts, portfolio management, finance, safety, fleet and human resources.

4.9.3. Strategic depot uplift and training centre

4.9.3.1. Depot strategy

AusNet has developed a Depot Strategy which outlines a comprehensive approach involving targeted relocations, major renewals and strategic upgrades. This aims to enhance site functionality, accessibility and future readiness, aligning with AusNet's long-term goals.

AusNet is already undergoing significant changes to its service delivery model to improve outcomes for customers and communities. After a comprehensive review of the Distribution Service Model, including the Operations and Maintenance Services Agreement (OMSA), AusNet is setting a new strategic direction aimed at insourcing core operational assets, re-establishing critical capabilities and taking greater control over its operations.

One major impact of this strategic change involves the transition of depot leases from Downer. Currently, Downer leases and manages six of AusNet's depots. As AusNet takes direct control of the management of the depots, these leases will be transferred to AusNet, enabling a unified approach to managing all depots under a single operating model.

This change supports an overarching strategy of transitioning these properties to owned assets where feasible, providing long-term financial benefits through capital appreciation, removing rental dependencies and allowing investments into upgrading facilities without lease restrictions. This strategic shift is intended to align with AusNet's goals to modernise its infrastructure, improve safety and reduce reliance on external service providers.

4.9.3.2. Training centre

Historically, AusNet has outsourced a large proportion of its operations and maintenance, with third parties expected to provide adequately trained resources. However, to deliver its strategic priorities AusNet intends to have greater involvement in the education and training of its employees and subcontracted workforce.

As AusNet has continued to update its operating model, the ongoing requirements of its growing workforce highlight the need for investment in training facilities and training providers and this need is further underlined by the proposed increase in investment and resourcing needed for the 2026-31 regulatory period outlined in AusNet's full regulatory submission.

AusNet is proposing that its outdated training facility currently located in South Morang is redeveloped to address its critical need for trained resources. As context, AusNet currently owns a property in South Morang, which was originally built in the 1980's to train lines people. AusNet has currently divested its lines people capability, and the facility is largely only used by the Victorian electricity industry for tower rescue training. The site as it currently stands includes unused buildings / storage areas, training equipment – a series of poles, towers and associated wires for transmissions line person training and carpark. This site has been unchanged since the 1980's as such its classrooms are run down and constructed with outdated material (i.e. asbestos). The site is located next to the South Morang terminal station, owned and operated by AusNet.

AusNet proposes to redevelop this site which will involve the replacement of the current structure with a new facility that meets AusNet's current and future requirements, in accordance with modern building standards and codes. As there is not currently any training occurring at the facility there will be no need to maintain the current structure while construction is undertaken.

4.10. Advocacy and external engagement

To deliver our program and support delivery of Victoria's overall energy goals, AusNet will play a key role to shape and influence industry developments. This will include leveraging our technical capabilities and policy expertise and proactively trialling new solutions to inform and fast track expansion of capabilities.

AusNet commits to advocating for regulatory and policy reform that will enable funding for investment to better suit customer needs and ensure a future-ready network for customers.

4.11. Pricing and the role of tariffs

AusNet is supportive of moving to more cost reflective pricing, recognising the importance of sending pricing signals to customers which can contribute to lowering network costs over the longer term. In relation to the 2026-31 regulatory period, AusNet's tariff strategies aim to address current network challenges, address inequities between solar and non-solar customers, create opportunities for emerging technologies and provide more flexibility for large users. These strategies will be targeted across residential, small business and large industrial customers.

All of these strategies will provide more flexibility to customers and support customers and the network to access local renewable solar energy generated during the middle of the day.

Reflective of the two-sided nature of managing the distribution network, AusNet will modify an existing residential time of use tariff to include a "solar soak" component to encourage load shifting to daytime hours, i.e. 11am to 4pm.

To support CER connected to the distribution network, AusNet will:

- Provide an optional tariff with two-way pricing for flexible customers, including export tariff during the day and export reward during the evening which will be suitable for households with solar and batteries and larger distribution connected batteries; and

- Allow for the scaling up and expansion of its EV dynamic trial tariff to make it available to all CER.

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