

Jemena Electricity Networks

2026-31 Draft Plan

Jemena
bringing energy to life

August 2024

Acknowledgement of Country

We acknowledge the many Traditional Owners across this Great Southern Land on which our Group employees and contractors live, work, volunteer, and play.

We pay our respect to the oldest continuing cultures on this planet by way of acknowledging Elders past and present.

We recognise that the First Peoples have lived, travelled on and cared for this Country for thousands of years. Without hesitation, we acknowledge First Peoples connections to the lands and waters of this Country including those relationships with all that is on, above, in, and under the waterways, seascapes, and landscapes.

With an open heart and mind, we are committed to listening and learning from the experiences, traditions, stories, customs, and practices of Australia's First Nations Peoples as we bring our projects to life in many communities where we work. We remain committed to working with First Peoples in co-creating shared futures, and building energy infrastructure, maintenance, and services for new and existing communities.

We honour and pay tribute to the legacy gifts of knowledge, experience and wisdom born from thousands of First Nations generations associated with the lands and waters.

We will work collaboratively with First Nations employees, Elders and Communities to preserve and grow the legacies of the past for the generations to come.



"Wurru Wurru Biik Djirringu – Sky Country of Lightning" by Simone Thomson

Wurru Wurru Biik Djirringu – Sky Country of Lightning

The traditional language of the Wurundjeri People is Woi-Wurrung. In the Woi-Wurrung language, the name Wurundjeri is in two parts. 'Wurun' meaning the manna gum tree, and 'djeri', the white grub that lives in the tree – the witchetty grub. Manna gum leaves float across the sky symbolising deep respects to the traditional custodians of the lands and waterways in which Jemena operates – Wurundjeri Country.

Birrarung, the majestic river of mist and shadows weaves gently across country from its birthplace at the foothills of the Great Dividing Range, to the saltwater Bay of Naarm, the place known as Melbourne. This significant and sacred waterway was a vital food source and means of travel, and the meeting place for inter-clan trade and ceremonies. The flowing water represents our connection to energy and mother earth and the relationship we all have with this vital resource.

Campsites are depicted along the river; they are the arced shaped mounds representing the customer homes within the region that Jemena services. Trees along the waterways represent the growing strength of Jemena and symbolise the intricate root system beneath country linking its customers. A burst of lightning strikes from the sky above, a flicker of light represents its relationship to power and its likeness to the extensive network of tree roots symbolising the distribution of power.

Bunjil the Wedgetail Eagle is the great and mighty creator spirit for the Wurundjeri People and all the Kulin Tribes. He created the lands and sacred waterways and all the flowers, trees and animals. After his creation he took the clay from the earth and moulded it into his people.

He took the string from the stringy bark tree and used it for their hair, then he blew into their mouths so they could breathe. After this, Bunjil was tired. So, he asked Waa the Crow, the Keeper of the Wind and Water if he could open up his bag of wind, he was too tired to use his wings to fly.

Waa did as he was asked and opened up his bag, but the wind was small. Bunjil asked him to open wider for a bigger wind, so Waa did as he was asked and opened his bag wider creating a mighty and powerful whirly wind. It lifted Bunjil into the air and carried him high into the sky right up into the heavens where he became the stars. This is where he remains today watching over his beautiful creation.

In the Aboriginal way, a person is represented by the 'U' and 'n' symbol. From the bird's eye view, this is the shape a person makes whilst sitting on the ground, knees crossed. People are shown around the interconnecting circles representing the many communities across Wurundjeri Country who are customers of Jemena. White dots around these circles symbolise Bunjil's stars in the sky country representing light and power distributed by Jemena.

The large Gathering Circle along Birrarung is the meeting place of Jemena. This is the place where its community gather symbolising the commitment they share in delivering power to its customers, the broader community. It is the place where Bunjil circles from above in his sky country of lightning – *wurru wurru biik djirringu.*

Simone Thomson, a proud Wurundjeri and Yorta-Yorta woman

The Artist



Simone is a Melbourne based Aboriginal artist and Traditional Owner of Victoria's Woi-Wurrung Wurundjeri and Yorta-Yorta language groups through her mother. Simone also has Irish and Scottish heritage from her father. Simone draws inspiration for her art from the abundant textures and colours of this beautiful land, along with the ancestral bonds she has to the Birrarung (Yarra River) and Dhungala (the Murray River).


The origins of the name Jemena is from the Wagiman people in the Northern Territory (spelt Jemenna in the Wagiman language).
It means “to hear, to listen, to think”.
We have been operating with permission from the Wagiman people under the variant name Jemena since 2008.

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Message from the Board



Every day we deliver electricity to over 387,000 homes and businesses across north and western Melbourne.

We build and operate the infrastructure that transports electricity through more than 950 square kilometres of Melbourne's north-west suburbs, providing energy to support households, businesses and critical infrastructure such as Melbourne Airport.

The cost of living has increased, and we know our customers' needs and aspirations are rapidly changing. Our customers have told us affordability is a top priority for them, as is maintaining the reliability of the electricity network and increasing resilience to withstand and recover from extreme weather events.

This Draft Plan responds to these challenges and the needs of customers. It outlines a number of initiatives aimed at providing a reliable electricity supply that creates a sustainable energy future while meeting customer needs today.

This Draft Plan has been shaped by the preferences, ideas, and recommendations of a diverse range of residential, large commercial, industrial, small, and medium-sized business customers that we serve, as well as energy retailers and local councils.

On behalf of the Board, I'm pleased to release this Draft Plan for customer, community and stakeholder consultation.

We look forward to receiving your feedback, which we will carefully consider and reflect on in our updates to ensure we meet your needs now and in the future.

Jiang Longhua
Chair of the Board,
SGSPAA (parent company of Jemena)

Message from the Managing Director



Customers are at the heart of our business and listening and understanding their needs has been critical to shaping this Draft Plan.

Energy affordability, the rising cost of living pressures, reliability and resilience are some top concerns we've heard from customers. Our customers and stakeholders also want us to play a greater role in energy education and see us strive to be a trusted source of information for customers and communities in our electricity network area.

I'm proud of the extensive engagement we have undertaken to shape this Draft Plan. We recognise the increase in customers who face greater barriers to accessing our services or navigating their way through the energy system. We are also aware that more customers are experiencing vulnerability. We have engaged deeply with a diverse range of customers who have given us rich insights into the role we can play as we transition to a more sustainable energy future.

The input and feedback we have received from customers have shaped the initiatives outlined in this Draft Plan and enriched us as a business. We have strengthened our understanding of the challenges customers face and their expectations for a reliable and safe energy supply.

In response to customer feedback, our Draft Plan outlines:

- efficient, sustainable solutions required to run a safe and reliable network
- new initiatives to enhance the digital experience and increase the accessibility of our communications with customers
- new customer education campaigns
- a commitment to developing a network resilience strategy
- technologies that enable better management through technological innovation, providing future generations with service levels that meet our customers' needs.

Finally, thank you to our customers, stakeholders and community members whose contributions have shaped this proposal. I welcome your feedback on this Draft Plan and am eager to hear your views.

David Gillespie
Managing Director

Summary

Highlights

- We forecast that we will need $1,861M in revenue over the next regulatory period, a 20 per cent increase from our revenue requirement for the current regulatory period.
- Key drivers for the increase are our proposed investments to connect new customers, maintain network reliability and improve resilience, accommodate forecast entry of customer energy resources such as rooftop solar, electric vehicles and storage batteries through digitisation and automation and provide ongoing service excellence to our customers.
- We are able to deliver an average two per cent reduction in distribution charges in 2026-27 and keep the average price flat from 2027-28 until the end of the next regulatory period (excluding inflation).
- Our proposed price reduction is enabled by an increase in load used by data centres, major connections, and increased utilisation by existing customers due to electrification.
- We are seeking feedback on whether we have heard and correctly understood your concerns and priorities and whether you think that overall our proposal is in the long term interests of our customers.
- Your feedback will inform our initial proposal to the AER in January 2025.

Jemena Electricity Networks is an electricity distribution network service provider and we are subject to economic regulation administered by the AER under the National Electricity Rules.

Our revenue is approved every five years by the AER. In the build-up to each new cycle, we submit a proposal to the AER that outlines our plans for the five years from 1 July 2026 to 30 June 2031 (next regulatory period) and how we expect to fund them. We are currently preparing a proposal (Plan) that we will provide to the AER for its consideration. This document is the draft of our Plan (Draft Plan). It sets out our proposed initiatives for the next regulatory period, the costs of implementing those initiatives and how we expect to fund them.

Your feedback on this Draft Plan will inform our initial proposal to the AER in January 2025.

All dollar values in this document are expressed in $2026 unless stated otherwise.

Our Draft Plan reflects our customers' priorities and how we are responding to our operating challenges

Traditionally, our plan is shaped by our customers' expectations and regulatory obligations regarding the safety, reliability, and security of the network, as well as forecasting new connections. For the next regulatory period, we must consider and address more challenges. Climate change, consumer choice, policy changes, the rapid development of technology, and the current cost of living challenge, have all accelerated the rapid transformation of the Australian energy market. Our network must adapt to this new environment for the long term interests of our customers. Below are the key drivers that have shaped our Draft Plan for the next regulatory.

Energy transition

There are five global megatrends that are currently driving the energy transformation, and which are likely to fundamentally change the structure and function of the electricity system over the next regulatory period and the long term. These are:

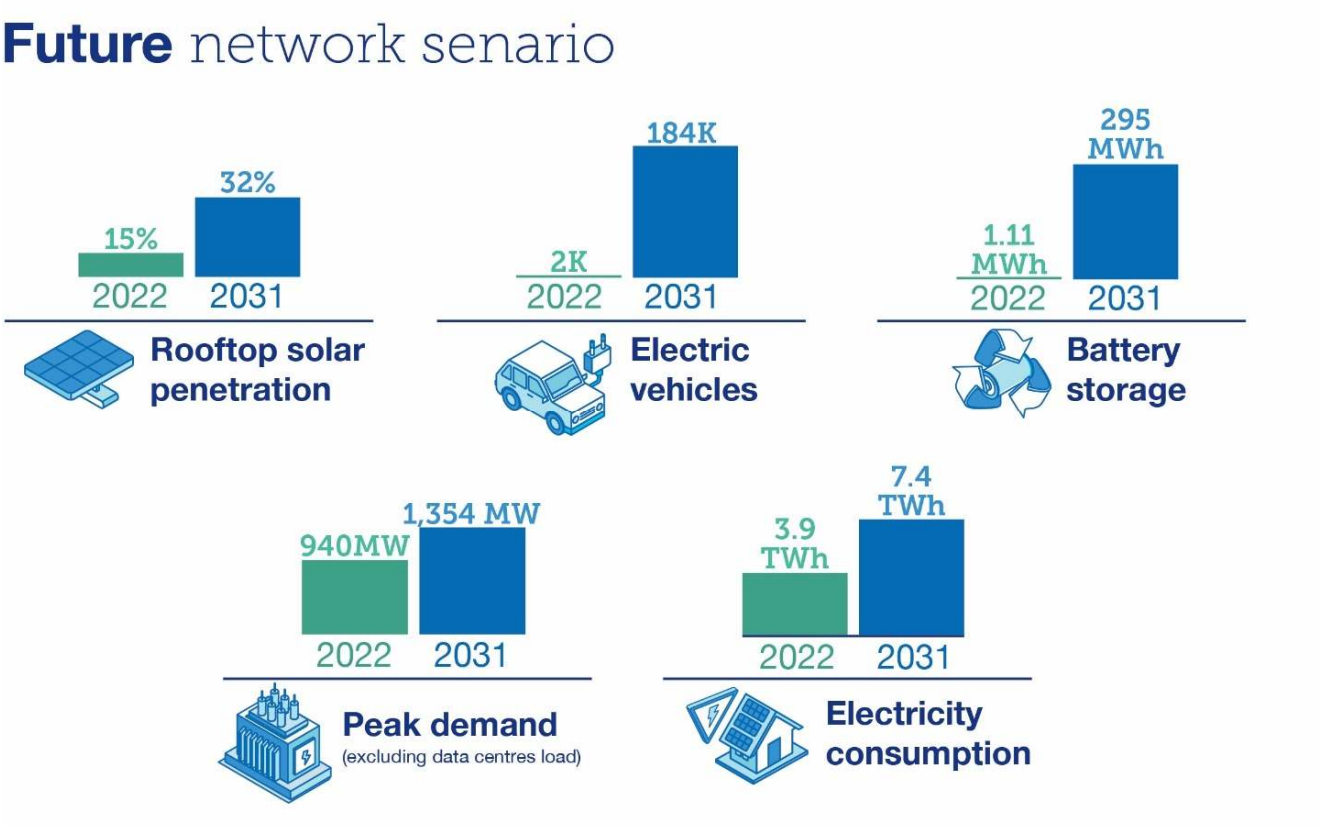
- **Decentralisation**. There has been a gradual decline in demand for electricity from centralised sources like power stations. Conversely, generation from, and consumption of, electricity from consumer energy resources (CER)[1] has increased.
- **Decarbonisation**. Federal and state governments are implementing policies to decarbonise the economy, and many have accelerated their emissions reduction targets in recent years. In light of this, and the expected retirement of the coal generation fleet between now and 2050, it is likely that significant amounts of intermittent renewable generation–whether large-scale or CER–will enter the electricity system in its place.
- **Electrification**. Electrification is likely to be recognised for its environmental benefits by shifting end uses of electricity - including transport and heating - away from fossil-fuel sources. Electric vehicles present an opportunity to increase the utilisation of the electricity distribution network and if the additional electricity used in EV charging can be managed, the expected increase in peak demand can be abated. In addition, the Victorian Government has placed a ban on new reticulated gas network connections starting in 2024. We expect more customers connecting to our electricity network as a result of the Victorian Government's gas policy.
- **The rise of energy storage**. Energy storage is made possible by converting electricity into other forms of energy that can be stored. A growing form of energy storage is batteries. Storage batteries—if managed well—can abate the expected increase in peak demand.
- **Digitisation**. Digital technologies such as smart meters, sensors, automation, machine learning, artificial intelligence and other digital network technologies can create smart integrated networks that better meet customers' needs. Network operators who are late adopters are likely to be left behind, as they have less knowledge of their customers, poorer management of their workforces and assets, and are less prepared for future network changes.

Our analysis shows that due to the energy transformation our network will be significantly different by 2031. Figure S.1 shows a snapshot of the status of our network by 2031 under a neutral scenario.[2]

1 CER are small-scale energy resources owned by customers, which can produce, store or vary how they use energy. CER includes rooftop solar, batteries and electric vehicles and more traditional assets such as hot water heaters and pool pumps.

2 Our neutral scenario is consistent with the AEMO's step change scenario (moderate growth, fast change scenario). See Chapter 3 (energy transition) of this document for more details.

Figure S.1: Status of our network by 2031 under a neutral scenario



From a network perspective, the more variable renewable generation sources that enter the system, the greater the need for flexible, dispatchable capacity to maintain system reliability and security. It could also mean there is a greater need for interconnectedness—both physically and digitally—in order to balance and vary the generation mix. We cannot wait until 2030 or 2040 to address the challenges associated with the energy transition. The new capabilities and systems will have to be added in the next regulatory period. We have developed a future network strategy to help us manage the uncertainty and range of risks associated with the transformation.

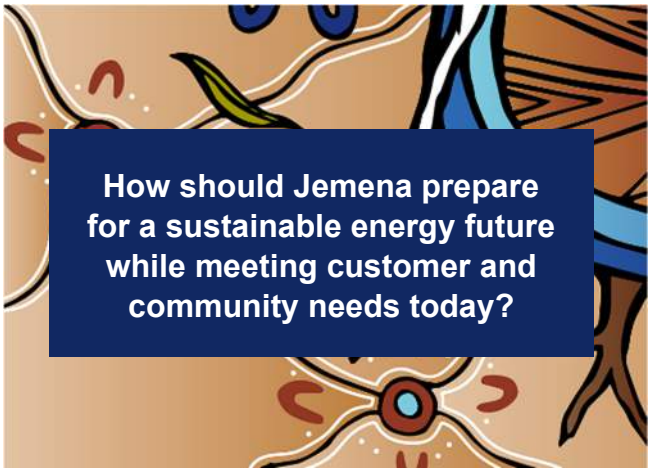
Chapter 3 explains in more detail the challenges we are facing in relation to the energy transition.

Our customers' expectations

Recognising our role as an essential service provider, we are driven to continuously improve our customer-centric culture and strive to understand customer needs and expectations. Our Draft Plan has provided us with a unique opportunity, both to allow our customers to help shape the services we offer, and to inspire our teams to improve outcomes for them.

> Our overall customer engagement goal is to develop a proposal that accurately reflects the preferences of diverse customers in our network.

With a constantly changing environment and cost of living pressures, providing a fair energy future has never been more important than now. With the increase in customer uptake of renewables and other technologies, people are rapidly changing both how they use electricity and what they expect from the electricity network. This compels us to rethink the best ways to plan for the future and charge for electricity in a way that is fair and equitable for everyone and meets different customer expectations. Throughout the engagement process we asked our customers to think about and make suggestions and recommendations on the question:



Our customers have spoken and we listened. Table S.1 provides a snapshot of our customers' key priorities while Chapter 2 sets out in detail our ambitious and extensive customer engagement journey and our customer's priorities and recommendations. We are grateful to all the customers we have engaged with for their generous insights and time.

Table S.1: Snapshot of our customers' key priorities and expectations

Key themes	Detail
Affordability, equitable and fair tariff reform	Our customers want electricity prices to be affordable. They want us to implement a tariff structure that is fair for different types of customers, such as solar and non-solar.
Reliability, resilience, power quality	Our customers want us to prioritise investment in network reliability in order to maintain service standards, power quality and customer experience and accommodate new growth. They want us to prioritise investment in network resilience to help us withstand and recover from the effects of a natural hazards or disasters.
Sustainability	Our customers want us to facilitate the transition to renewable energy sources and champion renewable energy in new housing and estates. Customers see us playing a leading role in enabling energy storage and incentivising battery take up and they want us to prepare for the increase in EV charging. Customers expect our operations to be sustainable and to maximise the use of green energy across the network as much as possible.
Digitisation and automation	Our customers want us to digitise and automate the network to make it smarter, more responsive and more efficient.
Ongoing customer service excellence	Customers strongly want us to take a leading role in empowering and educating customers through the energy transition and to make communications to customers efficient and accessible.
Corporate responsibility	Our customers want us to continue to provide support for customers experiencing vulnerability and to help protect the land.

Data centres

Whether you use the internet for online banking, connecting with friends and family, or working from home – you are creating data. While we tend to describe this data as existing in the 'cloud', the websites and apps you interact with store this data in large computer servers. These servers and the systems that keep the data secure are housed in purpose-built buildings called data centres.

It's estimated that over the next five years, trends in internet usage and new technologies like Artificial Intelligence (AI) will generate twice as much data than the past ten years. This means that data centre storage will need to increase by 18.5 per cent every year over the same period.[3]

Data centres are energy intensive and need to be operational 24/7. They are designed with electricity redundancy to minimise the chance of a power outage. This means that when they connect to the

3 John Rydning, International Data Corporation Document #US49346223, Revelations in the Global Storage Sphere 2023, August 2023.

network, costly upgrades are often required to ensure they can get all the electricity they need, all the time.

Since the AER has approved our allowance for the current regulatory period, we have connected a number of large data centres that we had not accounted for in our previous forecasts. At this stage, we forecast that more data centres will apply to connect to our network based on the best available information shared with us by prospective customers. Our Draft Plan has accounted for data centre projects.

Connecting these data centres to our network increases our capital expenditure. However, in the long term we believe their presence on the network will reduce costs for our customers due to economies of scale. In addition, connecting these data centres to the network means our customers can continue to scroll social media, order groceries, do business and stream movies online.

Regulatory obligations

We need to maintain the level of performance provided by our existing assets, or else they will deteriorate further and eventually fail. If failure occurs, the quality of service we provide to our customers would decline and we would fail to comply with our regulatory obligations and potentially negatively impacting the stability of the wider electricity grid. Our condition-based and consequence-based risk assessment of our existing assets suggests that we will need to replace several of distribution system assets, SCADA,[4] network control and protection systems and assets, and sub-transmission assets.

Network resilience

Network resilience is the ability of the electricity network to withstand and recover from the effects of a natural hazard or disaster, such as floods, storms and bushfires. The impacts of climate change on electricity distribution are already present and increasing. Following the extreme weather events in Victoria in 2023 and 2024, the Victorian Government has placed additional obligations on electricity distributors to ensure our networks and the communities we serve are able to withstand and recover from extreme weather events in the future.

As network resilience is an emerging issue and can have a substantial impact on the communities we serve, we have included our current thinking on climate risks to our network and potential strategies to mitigate them in a separate resilience addendum. We view this addendum as a living document which will be finalised following deeper engagement with our customers and stakeholders.

4 SCADA (supervisory control and data acquisition) is a real-time control system that enables monitoring, and the issuing of process commands to manage the high-voltage network in real time.

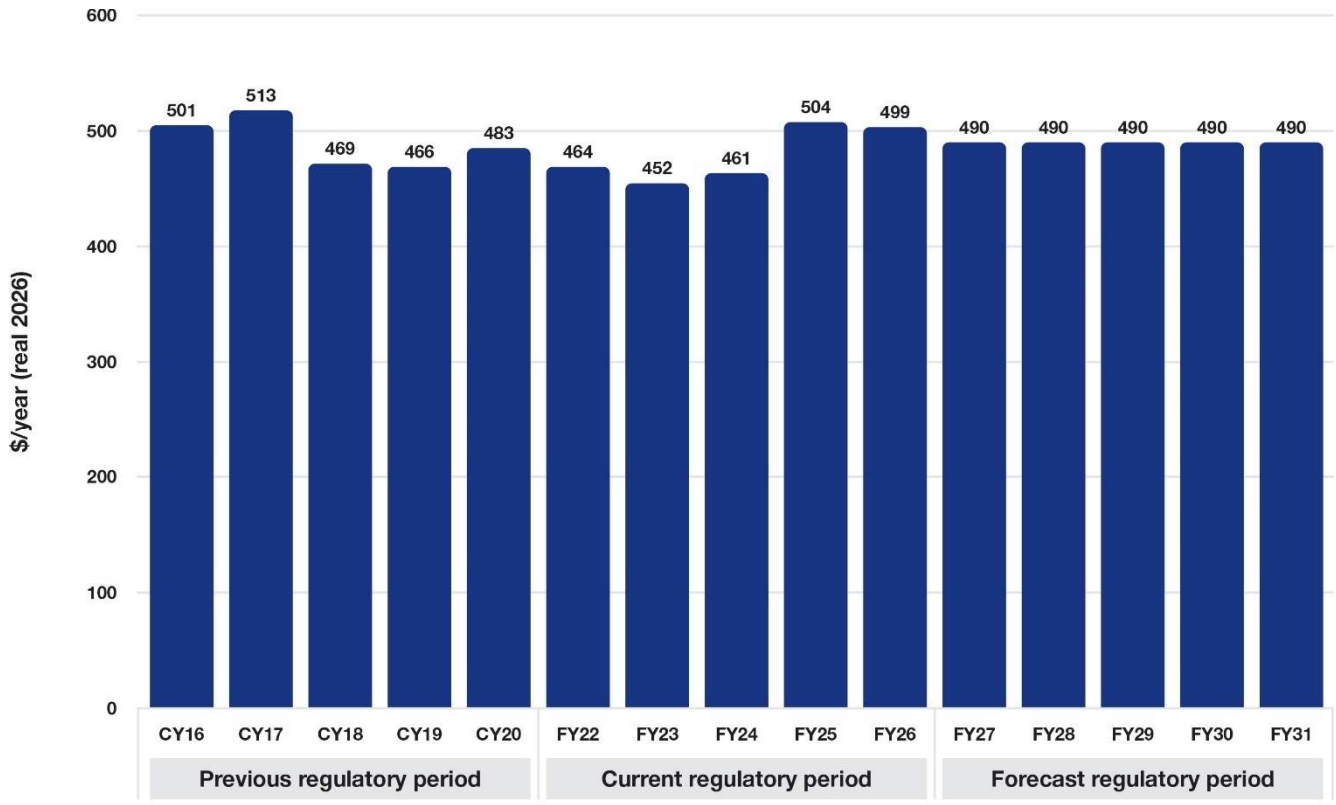
Customer bill impact

Affordability remains our customers' top concern. We are able to deliver a reduction in distribution charges by an average of two per cent (excluding inflation) in 2026-27, followed by zero per cent increases (excluding inflation) from 2027-28 until the end of the next regulatory period. Figure S.2 shows the historical and forecast distribution charges for a typical residential customer.[5]

Our proposed price reduction is enabled by an increase in load from data centres, major connections and increased utilisation from existing customers as they move from using gas to electricity to heat their homes and cook their meals.

Network distribution costs represent around 35 per cent of a typical residential customer's electricity bills.

Figure S.2: Historical and forecast residential distribution charges per year, $2026



Note: for residential customers consuming around 4300kWh per annum

5 Our typical residential customers consume 4,300 kWh of electricity per year.

What our Draft Plan will deliver for our customers

Figure S.3: Our Draft Plan will deliver the following for our customers



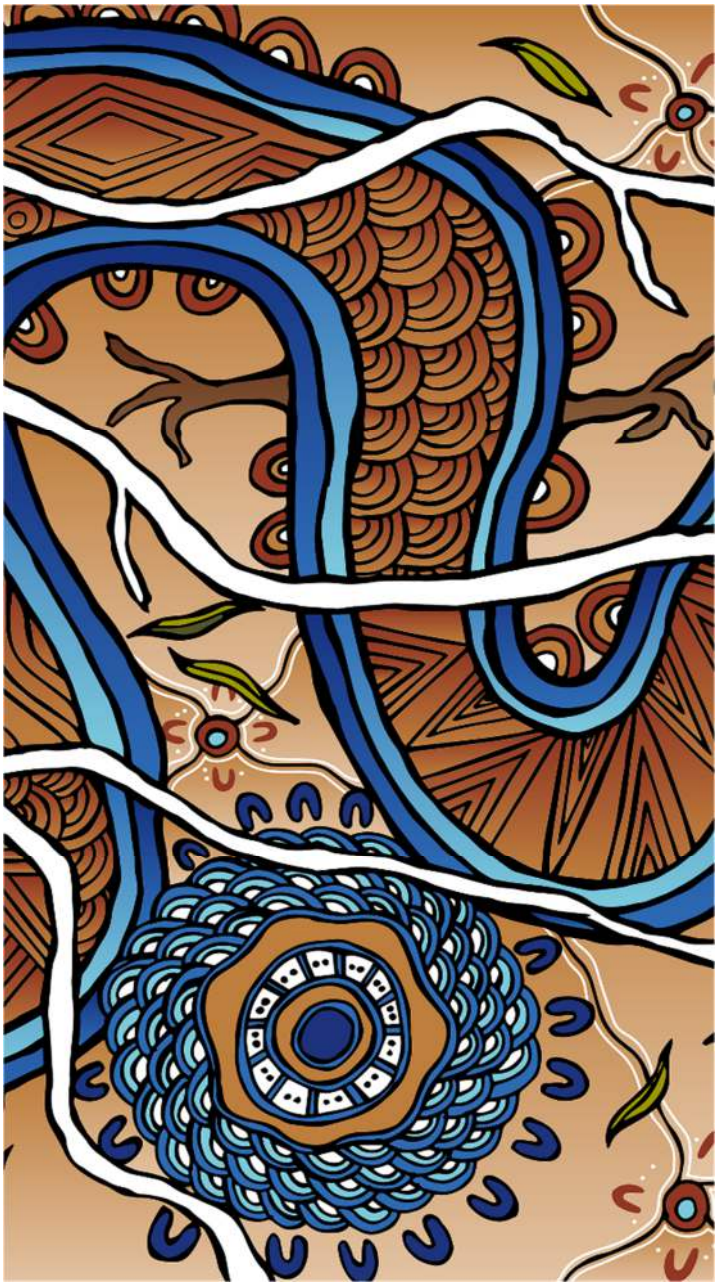
In summary, amidst all the challenges and expectations, we have taken a long-term and whole of system approach in developing our Draft Plan.

- **Long-term approach**. Many of the required technologies needed to address some of the challenges associated with the energy transition are in their infancy or do not yet exist at scale. We will upgrade our networks to ensure we have the capability to implement advanced technologies to reduce future network costs and enable consumer participation. Our Draft Plan is premised on the assumption that these technologies will be increasingly effective beyond 2031 thereby reducing the level of investment we need beyond the next regulatory period.
- **Whole of system approach**. Our Draft Plan considers how we can empower our customers and help them unlock greater value from our network through the various digital technologies we proposed to implement to accommodate more CER while meeting our regulatory obligations. We are conscious that if we do nothing constraints on our network will also result in higher costs to consumers by reducing their ability to unlock the advantages of solar and lower cost electricity for electric vehicles and heating.

Under investment in network capital expenditure risks our network having insufficient capacity to serve the increase load including from data centres. This will not only lead to higher bills from lower overall utilisation but could lead to increased unreliability during peak times. It will also place limits on network connections and the uptake of CER and customers moving from gas to electricity for their home heating requirements.

We have assessed the prudency and efficiency of our proposed initiatives against the national energy objectives under the NEL and the AER's various guidelines.

For the next regulatory period, we forecast an operating expenditure of $623M which is two per cent lower than our allowance for the current regulatory control period covering 2021-26 **(current period)** (excluding inflation). Our forecast base year operating expenditure is below the efficient level estimated using the AER's benchmarking approach. We operate efficiently and benchmark well amongst our peers.



We forecast a gross capital expenditure of around $2 billion, a 47 per cent increase from our expected capital expenditure for the current regulatory period. This reflects the costs needed for us to meet our customers' expectations and address the different operating challenges we are facing as outlined above.

Chapters 5, 6 and 10 set out the costs of providing the initiatives (Figure S.3) over the next regulatory period while Chapters 7 and 9 provide more information about our incentive schemes and tariffs.

Network reliability

Throughout this Draft Plan we have ensured that our planned expenditures represent the most efficient way of meeting our customers' needs, the objectives we have identified, as well as our regulatory obligations.

Our forecast does not include additional costs to improve network reliability, as our customers have told us they do not see the value in paying for these improvements. They did, however, tell us that we needed to maintain our current levels of service and therefore our forecast does include expenditure to ensure that the level of reliability we currently provide does not degrade.

Figure S.4: Reliability over time–unplanned SAIDI (measures the duration of outages)

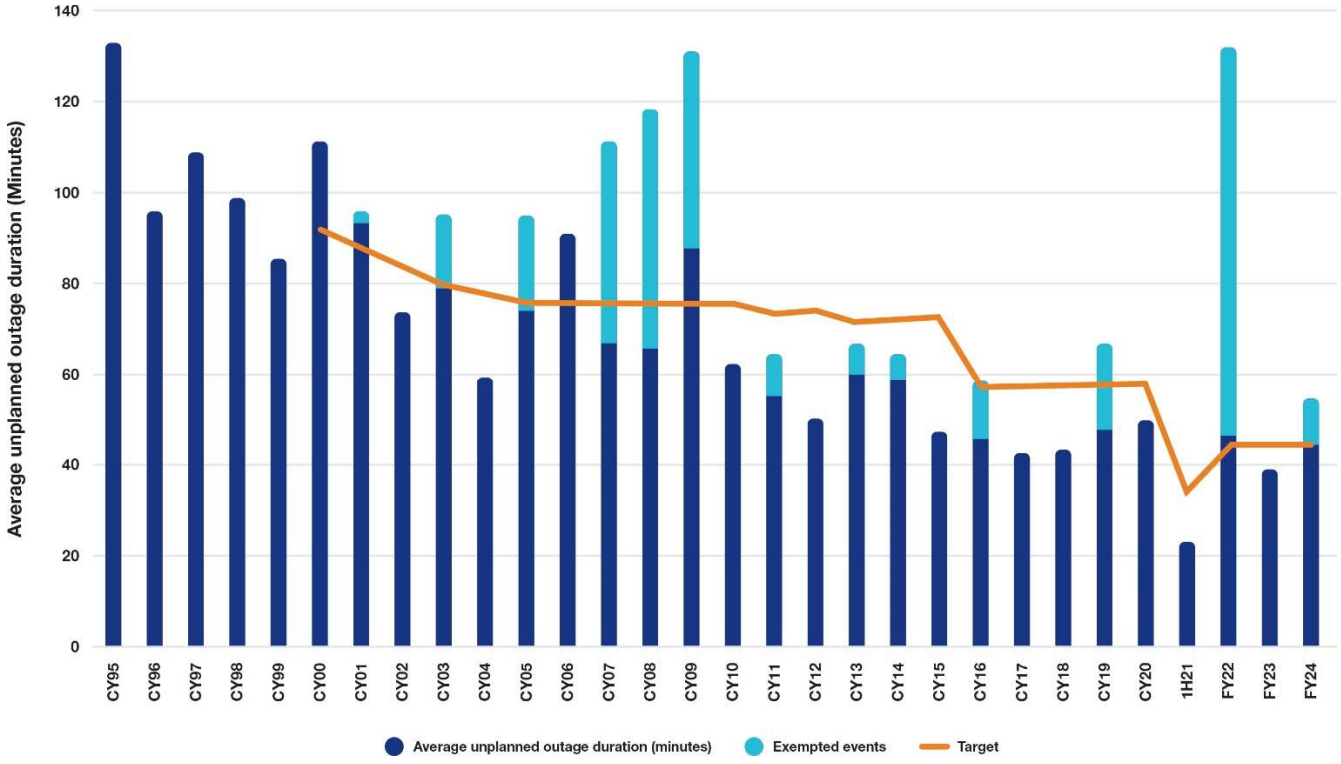
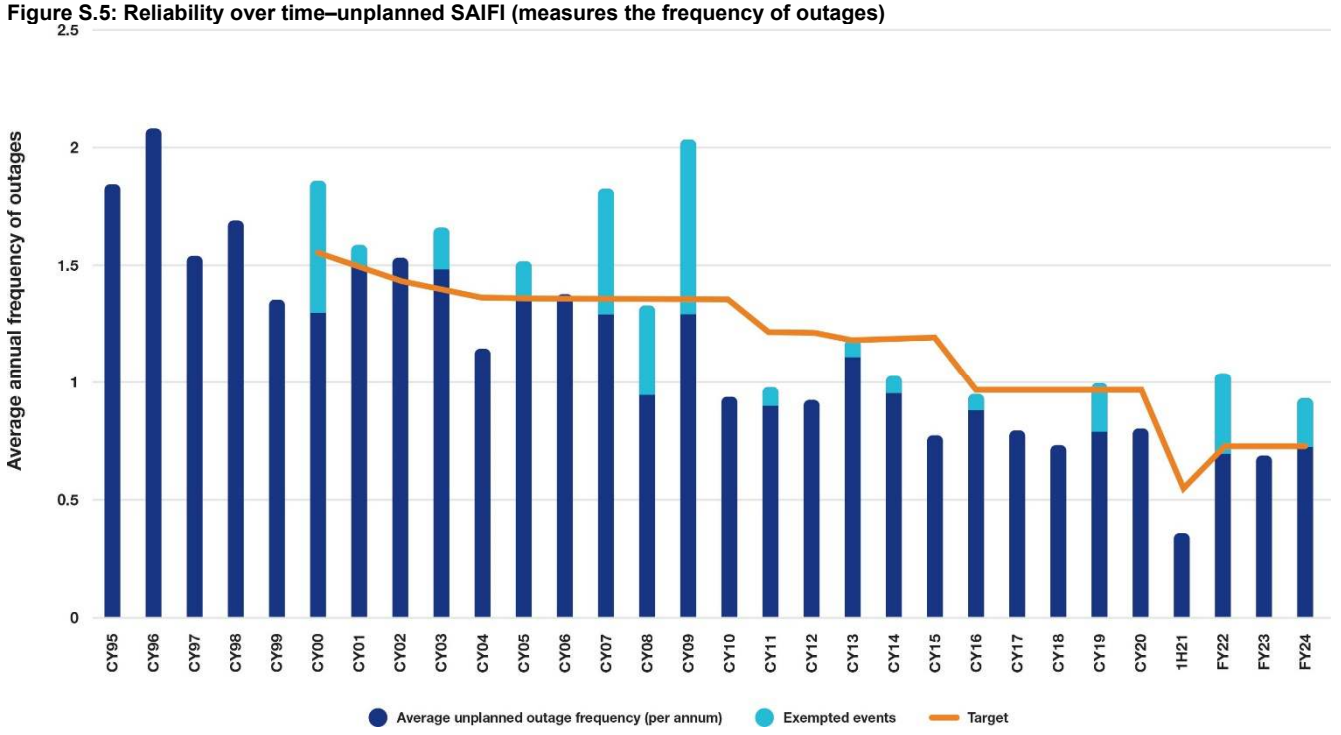


Figure S.5: Reliability over time–unplanned SAIFI (measures the frequency of outages)



Our required revenue to deliver the Draft Plan

We forecast that we will need $1,861M in revenue over the next regulatory period, a 20 per cent increase from our revenue requirement for the current regulatory period (see Figure S.6). Key drivers for the increase are our proposed investments to connect new customers, improve network reliability and resilience, accommodate CER (rooftop solar, EVs and batteries), digitise and automate and provide ongoing service excellence to our customers. These initiatives are consistent and in response to our customers' feedback and recommendations.

We are also seeking $125M in revenue to deliver advanced metering services to our residential and small business customers, which represents a four per cent reduction from the current regulatory period (see Figure S.7). Key drivers for our proposed revenue requirement for smart metering services include:

- replacement of smart meters that have reached their 15-year technical life span
- In-person inspections of meters are a part of our new regulatory obligations.

Chapters 8 and 10 set out how we have estimated our forecast revenue requirements for network distribution charges and smart metering charges, respectively.

Figure S.6: Total revenue requirement – network distribution charges, Real $2026, millions

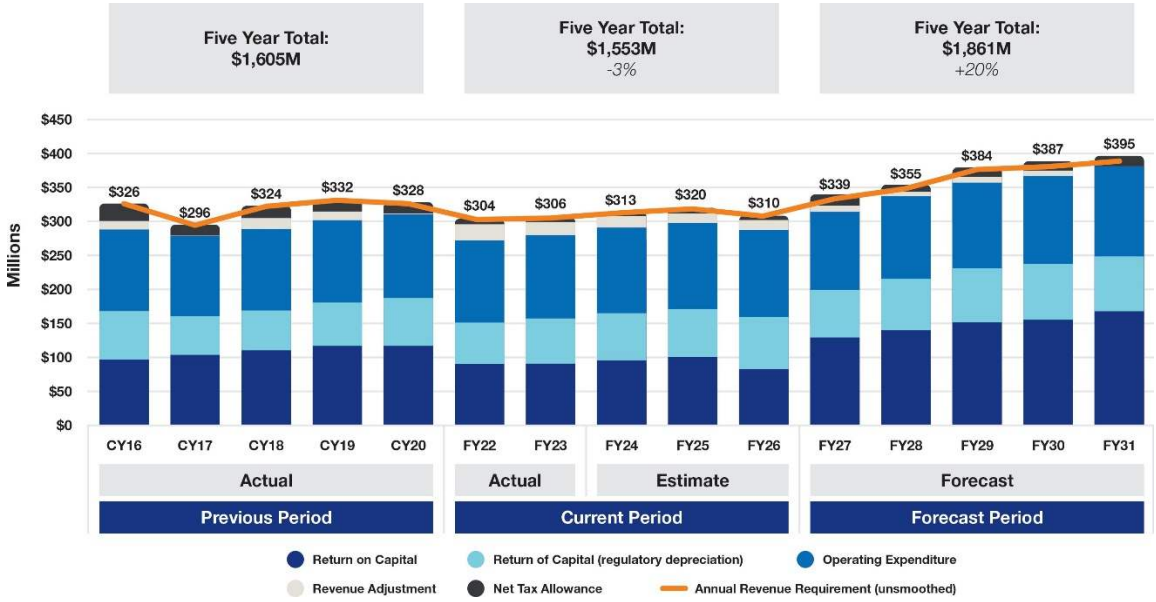
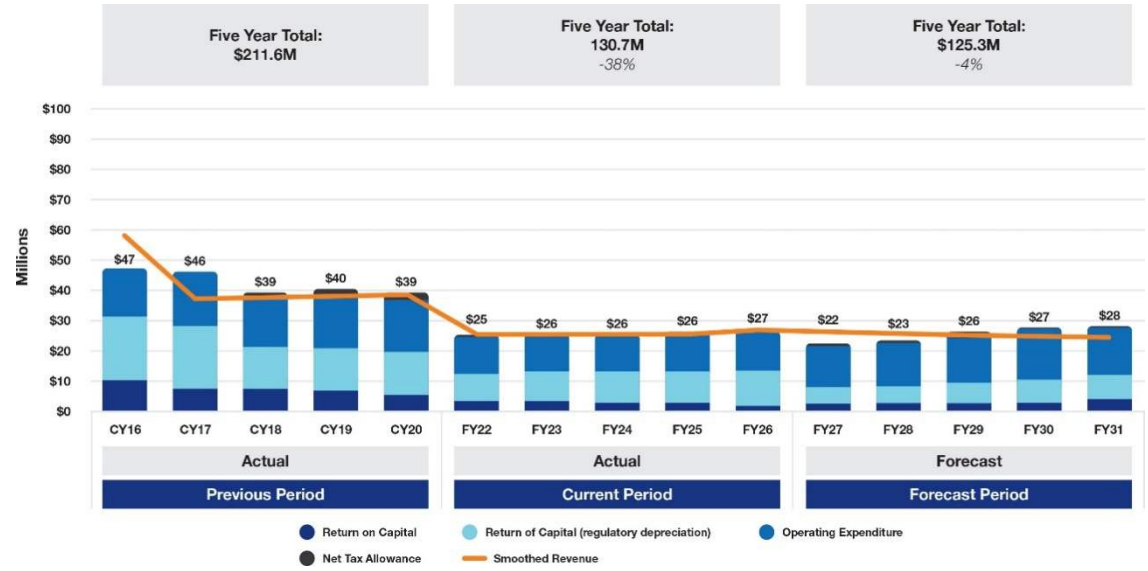


Figure S.7: Revenue requirement for smart metering services, Real $2026, millions



We are proposing some changes to our tariff structures

To reflect our customers' preferences for improving fairness, equity, and cost-reflectivity, and their expectations for us to increase renewable energy in the electricity network, we want to incentivise customers, with or without solar, to take up more energy created in the middle of the day. For the next regulatory period, we are proposing two new residential tariff structures:

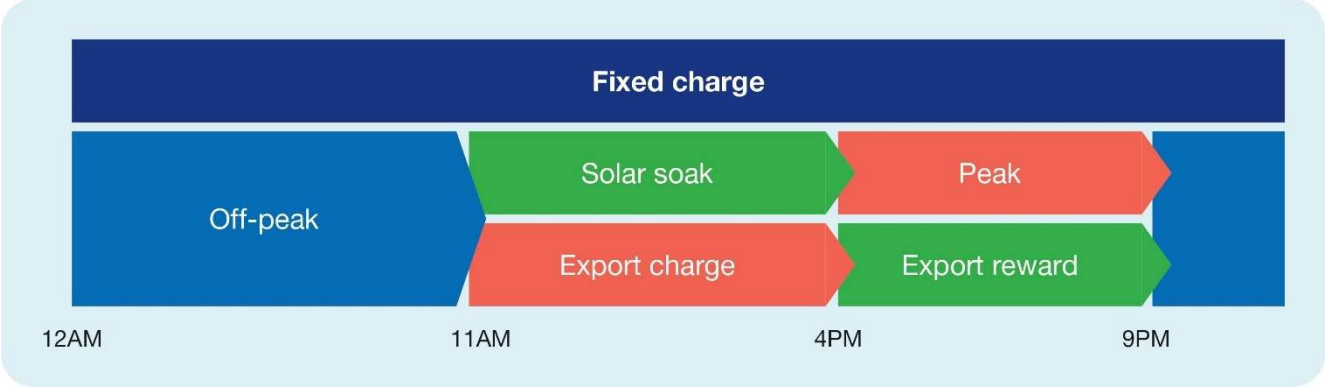
- **Daytime Saver.** This tariff would enable all customers to benefit from the energy generated by customers with rooftop solar generating units. We propose to change our existing Time of Use **(ToU)** tariff by introducing a daytime saver period in the middle of the day. This daytime saver period would operate as an additional off-peak period, with cheaper pricing than the off-peak window to encourage consumption (Figure S.8).

Figure S.8: Daytime Saver



- **Export Tariff**. This tariff includes charges for exporting electricity to the network when the network is constrained,[6] rewards customers who export electricity at a time when the network needs it the most and applies no export charges when exports are expected to have no network impact (Figure S.9).
- This tariff will be provided on an *opt-in* basis in the next regulatory period.

Figure S.9: Proposed export tariff structure and timing



6 Meaning, the network is at or close to capacity of being able to accept any more renewable electricity generation.

We are interested to hear your views

We are seeking feedback on whether we have heard and understood your concerns and priorities and whether you think that overall our proposal is in the long term interests of our customers.

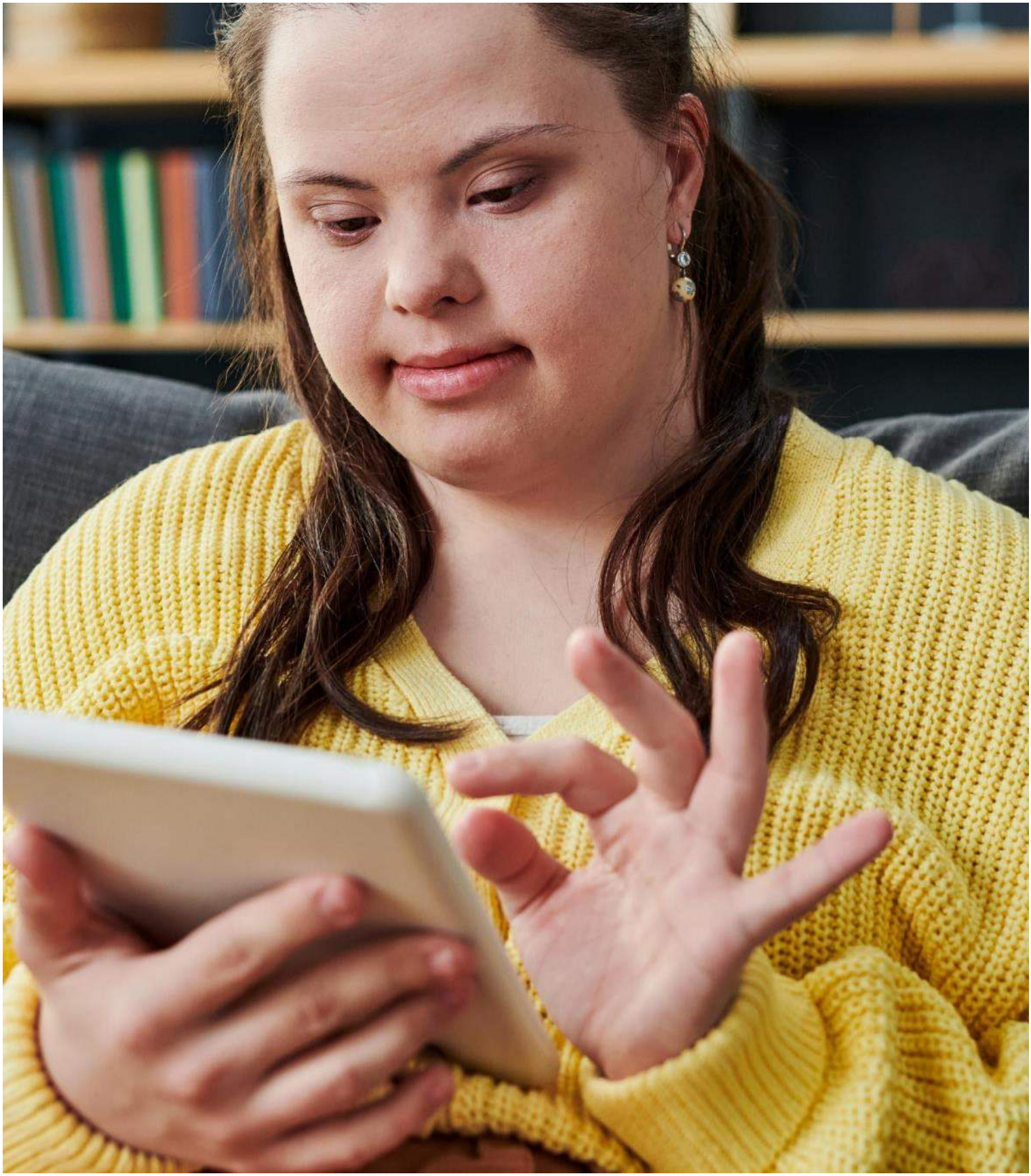
We are seeking your feedback by close of business, 16 September 2024.

Your feedback will inform our initial proposal to the AER in January 2025.





1. Background



1.1 About Jemena

Our electricity network is one of five electricity distribution networks operating in Victoria. We are the sole distributor of electricity in north-west greater Melbourne. Every day we help deliver electricity to over 387,000 homes and businesses across north and western Melbourne.

We build and manage the infrastructure that transports electricity across a 950 square kilometre area and provide energy to support businesses and critical infrastructure such as Melbourne Airport, which sits in the middle of our distribution area.

1.2 Operating environment

The distribution area we manage covers a mix of industrial, commercial and residential customers, including established inner suburbs, some major transport routes and Melbourne Airport. Our network covers semi-rural areas around Sydenham, Sunbury and Coolaroo, some of which have a high bushfire risk.

Our network environment is mainly flat land with a few exceptions, such as Greenvale and Reservoir, which have minor undulations. It includes Maribyrnong River, Merri Creek, Darebin Creek, and Steele Creek as waterways and is bordered by the Yarra River in the east and Port Phillip Bay in the south. Underground, Jemena experiences a diverse mix of ground types ranging from soft sand bases to hardened basalt rock.

Our total distribution area covers approximately 12 per cent of the Victorian population.

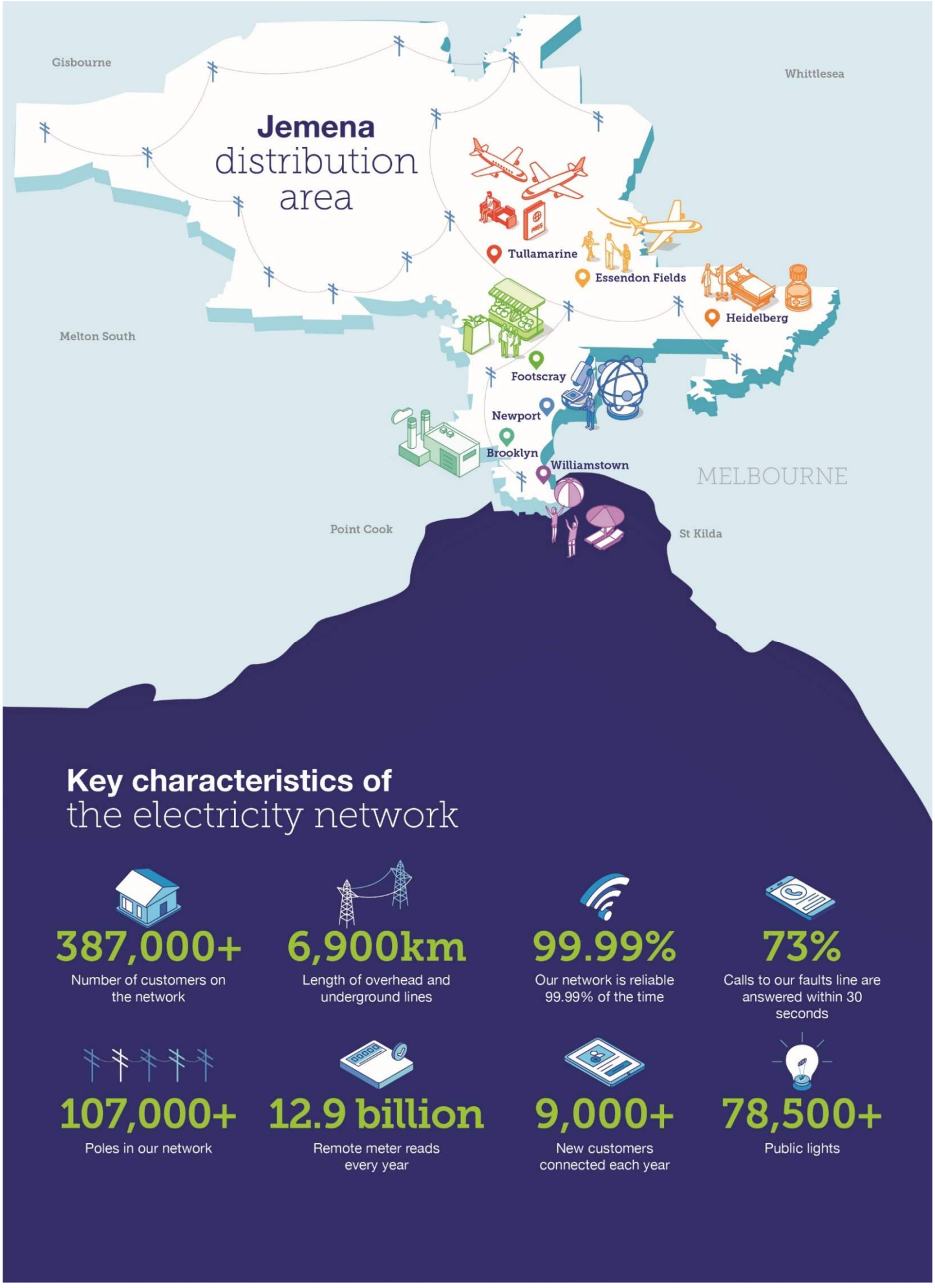
1.3 Our role as an electricity distribution network

As our society increases its reliance on electricity for our day-to-day lives and we progress towards a decarbonised future, the electricity system has and will continue to change. As it transforms, so too does our role as an electricity distribution network provider. We also see an evolution in the workforce we engage with and the technologies we procure to support this change.

Customers want to connect to and interact with the electricity system in many ways, this includes using new technologies such as electric vehicles and community batteries. They also want to generate electricity that can be exported back into the electricity network from rooftop solar and do their bit for the environment. As we move to more electricity use and small-scale generation, we need to manage the congestion of the network and the electricity that flows back to the electricity network.

We are also seeing emerging market trends with new products and services coming online such as virtual power plants where customers can benefit from aggregating exported energy or orchestrating customer electricity usage; we also play a part in transporting electricity with these emerging products and services.

The transition to this new role will be heavily influenced by customers, governments and regulators, as well as other changes in the broader electricity market. With a changing role, we need to pre-empt the transformation, minimise the impact, and embrace the opportunities it presents. We see that greater dependence on data and communications will be necessary, and our interactions with markets, new market players and customers will increase which we need to prepare for.

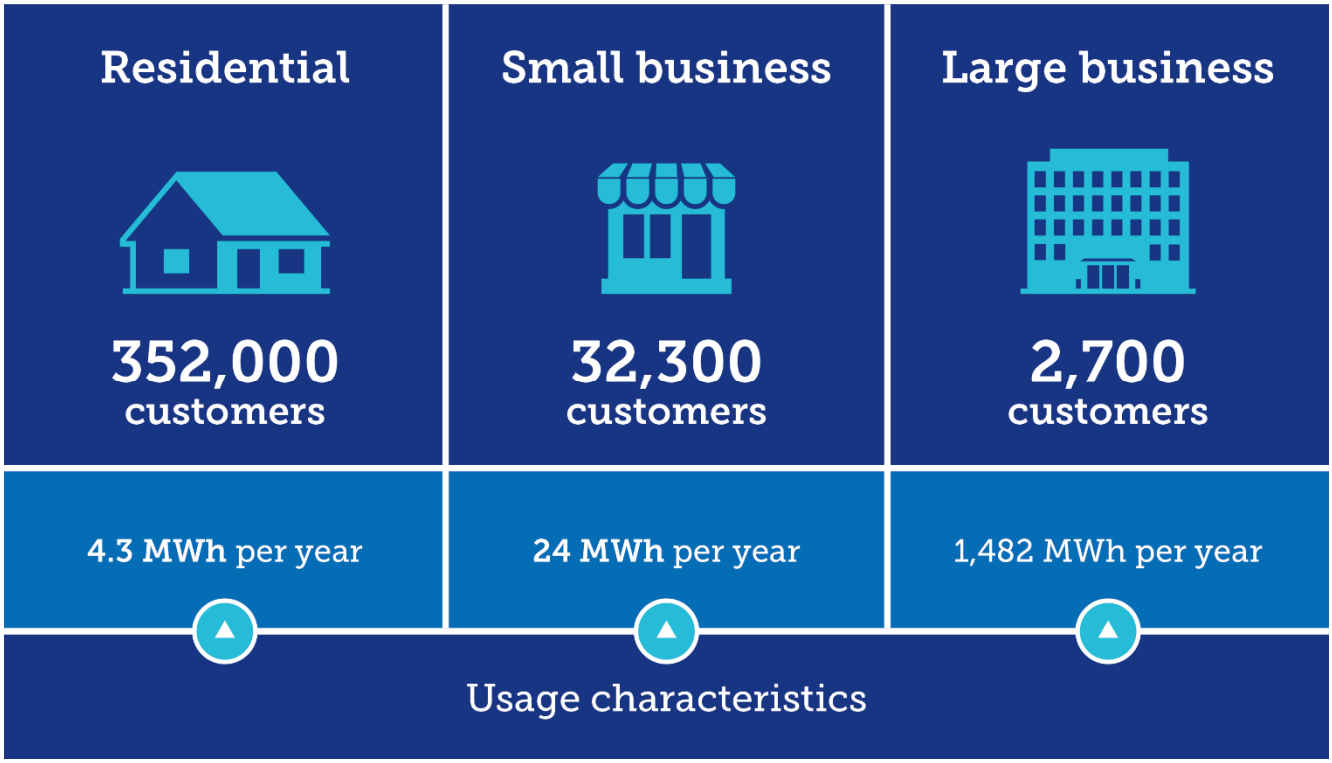

Gisbourne
Whittlesea
Jemena
distribution
area
Tullamarine
Essendon Fields
Heidelberg
Melton South
Footscray
Newport
Brooklyn
Williamstown
MELBOURNE
Point Cook
St Kilda
Key characteristics of
the electricity network
387,000+
Number of customers on the network
6,900km
Length of overhead and underground lines
99.99%
Our network is reliable 99.99% of the time
73%
Calls to our faults line are answered within 30 seconds
107,000+
Poles in our network
12.9 billion
Remote meter reads every year
9,000+
New customers connected each year
78,500+
Public lights

1.4 Our customers

As a provider of essential services, we have an important relationship with our customers and local communities. Customers are at the heart of our commitment to deliver electricity safely, reliably, and affordably.

Apart from a few very large customers, anyone currently connected to Jemena's electricity distribution network is a customer of ours. We also connect new customers and provide distribution services to other groups like property developers, landlords and businesses of all sizes, from sole traders through to large energy consumers including Melbourne and Essendon airports, industrial customers and hospitals.

Figure 1.1: Jemena's customers and average usage characteristics



1.4.1 Residential customers

We are the sole electricity distributor in northwest greater Melbourne, servicing more than 387,000 households. Our network area's residential customers and communities are diverse, spanning some of Victoria's fastest- growing Local Government Areas including Hume, Merri-bek, Maribyrnong and Moonee Valley.

Our residential customers are made up of diverse households that include:

- Households with solar
- Households with electric vehicles
- Households with batteries
- Dual fuel households with gas and electricity
- Households with electricity only
- Renters and homeowners
- Households of different densities (low, med and high)
- Households with different socio-economic status
- Customers with lived experience of disability and mental health difficulties
- First Nations peoples
- Seniors
- Young People
- Multicultural households.

1.4.2 Large customers



Our large commercial and industrial customers—made up of over 2,700 customers in north and western Melbourne—consume more than 50 per cent of the electricity that flows through our network.

Large customers come from a range of industries including:

- aviation
- transport
- data centres and high-tech industries
- property development
- health and medical
- education
- local councils
- logistics
- food manufacturing
- telecommunications
- other utilities.

Each large customer has different energy priorities that reflect the realities of their industries and the customers they serve.

1.4.3 Small and medium business customers



Our small to medium-sized business customers are made up of over 32,300 diverse customers across north and western Melbourne.

Small to medium sized businesses in our network are a vital part of our rich and vibrant communities

Each small and medium business has unique circumstances and ways of operating, including different working environments, retail spaces and office locations.

Small to medium sized businesses include a large mix of sectors and professions, for example:

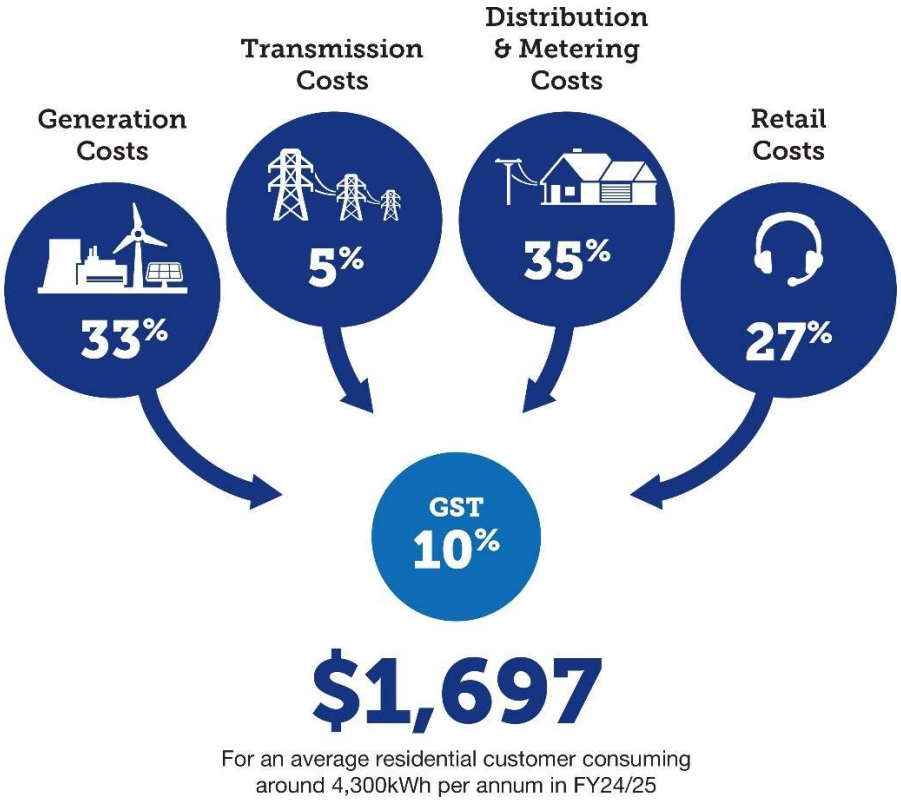
- accommodation and hotels
- florists
- agriculture
- furniture building and restoration
- bars, clubs and breweries.
- printing and design
- cafes, food stalls and restaurants
- real estate
- clothing
- retail
- consultancies
- small goods, delicatessens and butchers.
- entertainment and music.

1.5 Purpose of our regulatory proposal

As an electricity distribution network service provider, we are subject to economic regulation overseen by the AER under the NER. A key function of the AER is to set maximum prices for the services we provide to customers.

The cost of distributing energy across the electricity network is paid for through the network charges included in customers' electricity bills. Typically, network and metering charges make up approximately 35 per cent of a household customer's total bill.

Figure 1.2: Breakdown of charges in an electricity bill



The AER approves our prices in five-year cycles. In the build-up to each new term, we submit a Regulatory Proposal to the AER that outlines our plans for the 2021-26 regulatory control period and how we expect to fund them.

The Regulatory Proposal must outline:

- the services we will offer
- the costs we are likely to incur in providing these services
- the prices we propose to charge during the next regulatory period.

The AER only approves the proposal if it complies with the National Electricity Rules and promotes the long-term interests of our customers.



1.6 Customer-centric regulation

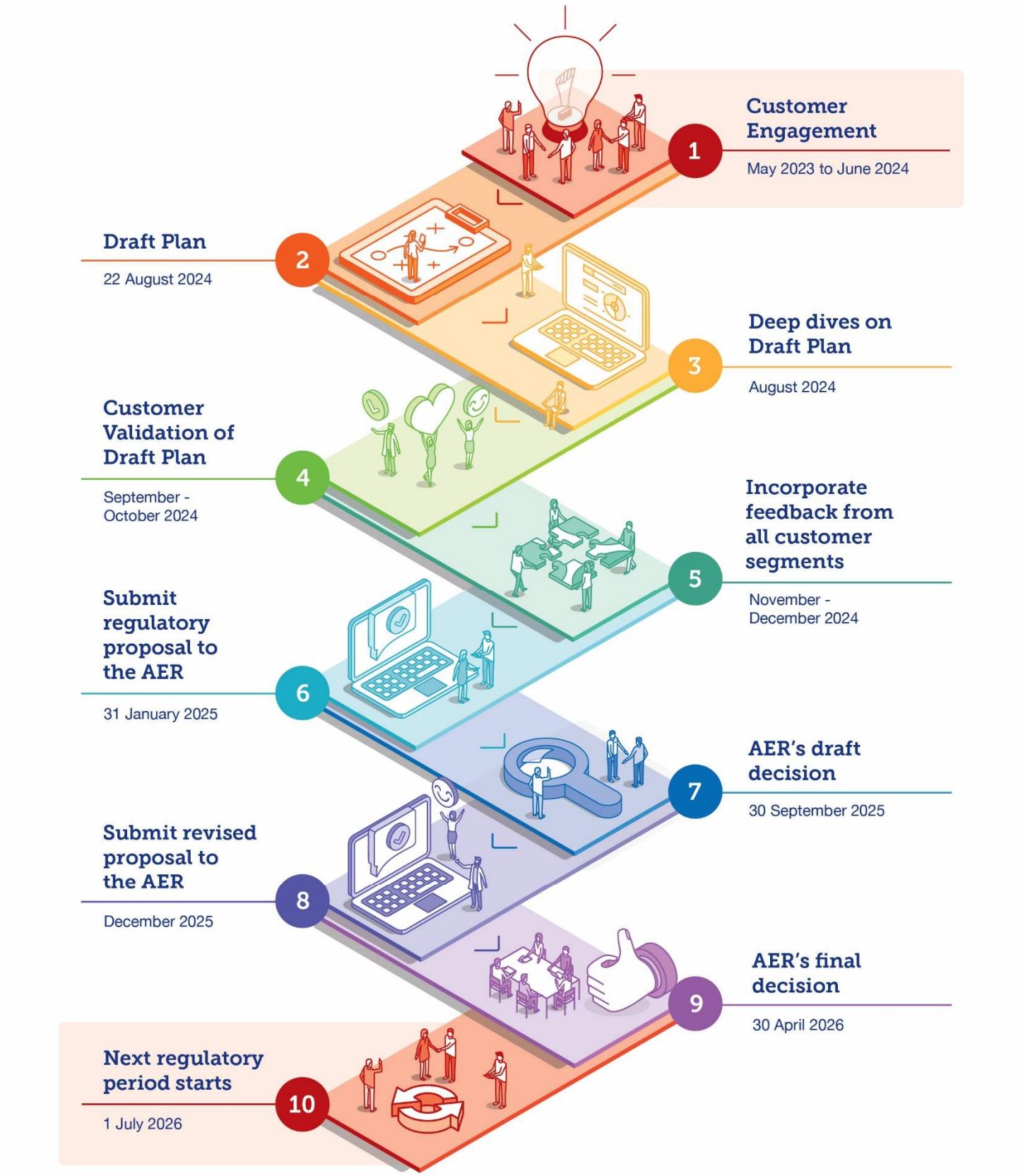
The AER regulates energy networks and must ensure that its decisions promote customers' long-term interests.

As part of its five-yearly assessment of the regulatory proposals from each of the electricity distribution network service providers, the AER considers—among other factors—the extent and quality of consumer engagement we have undertaken during the development of this draft proposal. It also looks for evidence that our regulatory proposal reflects the outcomes of that process.

In Chapter 2, we outline how we strive to deliver industry-leading customer engagement that puts customers at the heart of our regulatory proposal, and our business.



1.7 The journey to approval





2. Our customers spoke and we listened



Our customer engagement journey

2023

May

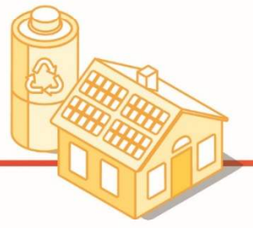
- **Co-design workshop** with residential customers from previous People's Panel
- **Vulnerability Roundtables** Joint VICDB engagement
- **Framework & Approach Workshops** Joint VICDB engagement



Aug

- **Framework & Approach Workshop** Joint VICDB engagement
- **Tariff Workshop** Joint VICDB engagement





Sep

- **Vulnerability Roundtable Joint VICDB engagement**



Oct

- **Energy Reference** Group meeting
- **Resilience Workshop** Joint VICDB engagement
- **Seniors Customer** Voice Group session
- **Mental Health** Customer Voice Group session
- **People's Panel** welcome event
- **Disability** Customer Voice Group session
- **Multicultural** Customer Voice Group session
- **Young People** Customer Voice Group session
- **First Nations** Customer Voice Group session



Nov

- **People's Panel** orientation
- **Energy Reference** Group meeting
- **Cultural Consultation** with Wurundjeri Woi-wurrung Land Council
- **People's Panel** all day forum
- **Seniors** Customer Voice Group session
- **Mental Health** Customer Voice Group session
- **Disability** Customer Voice Group session
- **Multicultural** Customer Voice Group session
- **Young People** Customer Voice Group session
- **First Nations** Customer Voice Group session
- **Energy Reference** Group meeting
- **Tariff Workshop** Joint VICDB engagement



Dec

- **Energy Reference Group meeting**



Tullamarine · Heidelberg · Essendon Fields · Footscray · Brooklyn · Newport · Williamstown

Our customer engagement journey

2024

Jan

- **Cultural Consultation** with Bunurong Land Council



Feb

- **People's Panel** all day forum
- **Seniors** Customer Voice Group session
- **Mental Health** Customer Voice Group session
- **Disability** Customer Voice Group session
- **Multicultural** Customer Voice Group session
- **Young People** Customer Voice Group session
- **Energy Reference** Group meeting
- **Large commercial and industrial** customer forum
- **First Nations** Customer Voice Group session
- **People's Panel** forum







Mar

- **Seniors** Customer Voice Group session
- **Mental Health** Customer Voice Group session
- **Disability** Customer Voice Group session
- **Multicultural** Customer Voice Group session
- **Young People** Customer Voice Group session
- **Energy Reference** Group meeting
- **People's Panel Day** all day forum with Customer Voice Group members

Apr

- **First Nations** Customer Voice Group session
- **Tariff Workshop** Joint VICDB engagement
- **Energy Reference** Group & **People's Panel** meeting
- **People's Panel Final** all day forum and recommendations provided



May

- **Small and medium business** customer forums
- **Retailer** Forum
- **Local Council** Forum
- **Customer Council Workshop**



Jun

- **Large customer tariffs** online session
- **Large customer survey**
- **Small and medium business** survey
- **Residential** customer research



5,332 visits to GridTalk

4,810 individuals directly engaged (including customers and stakeholders)

210 hours of facetime with customers

4 Board & Senior Management members involved

45 Jemena members involved

6 Customer Voice Group Champions from across the business

65 unique engagement sessions

180 contributions on the GridTalk website

150 residential customers on dedicated engagement groups

7 People's Panel sessions held

24 Customer Voice Group sessions held

2 Cultural consultations with Aboriginal Land Councils held.

2.1 Our customer and stakeholder engagement

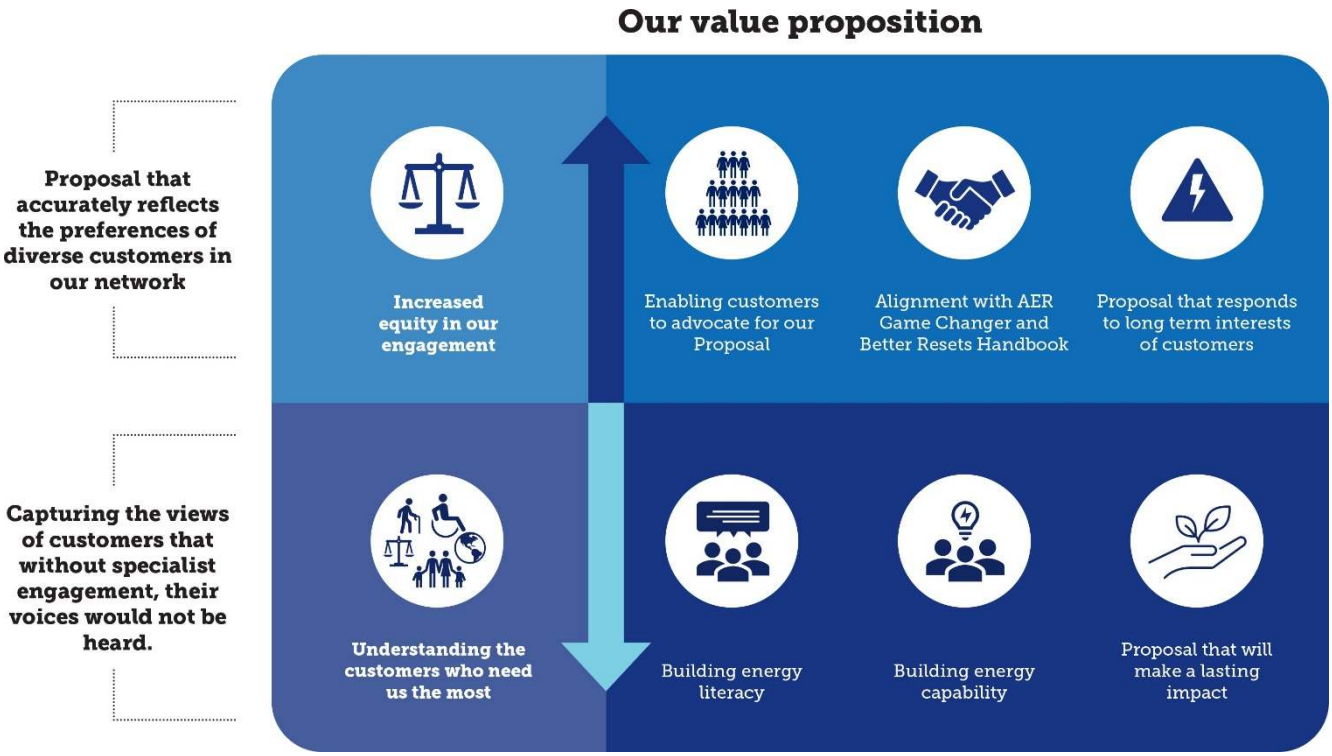
As an organisation and in recognising our role as an essential service provider, we are driven to continuously improve our customer-centric culture and strive to understand customer needs and expectations. Our Draft Plan for the next regulatory period gives us a unique opportunity to allow our customers to help shape the services we offer, and to inspire our teams to improve outcomes for them.

With customers at the heart of everything we do, we engage meaningfully with a broad spectrum of customers in our network. We wanted to partner with a full range of our customers, including our energy-savvy customers, right through to those who have low energy literacy or face barriers to engaging with energy. Through engagement and open dialogue, we aim to position Jemena at the forefront of delivering innovative customer engagement to our diverse range of customers.

Through this price reset process, we purposefully and ambitiously set out not only to understand our customers' views but to build the energy capability of those members of the community who need it the most. It is with this sentiment that we sought to reach deep into our community and engage with customer groups who face barriers or may have access issues to our services. We aimed to capture the views of customers whose voices, without specialist and purposeful engagement, would not be heard. Where customers were unable to provide their voice, we sought the views of advocates or service providers.

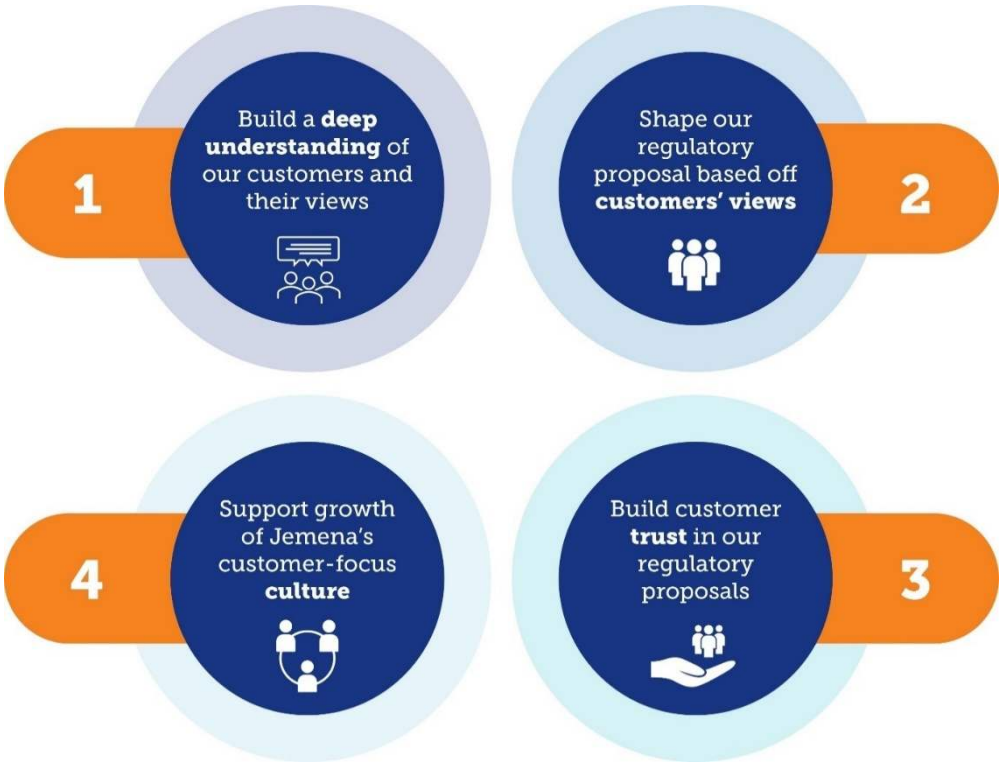
"When the opportunity came to participate in the energy reference group, I thought it was a brilliant opportunity as it aligns with my interests. I'm very passionate about the environment, climate change, and how renewables will play a big role in the energy transition." People's Panel member.

Figure 2.1: Customer engagement goals



Our engagement strategy is underpinned by energy industry best practices, our engagement values and principles, and lessons learned from developing our past regulatory proposals. We recognise that we act as the conduit for our customers' preferences, using their views to shape our proposal. To do this we needed to partner with our customers, listen to the voices that are heard the least, and engage with the customers that need us most.

Figure 2.2: Customer Engagement Objectives



To achieve our first objective and enable customers to shape our Draft Plan, we recognised that we would need to deeply understand our customers' needs, views and expectations.

To ensure our engagement process led to a Plan that our customers helped shape, we endeavoured to provide them with unbiased and easy-to-understand information.

To achieve our objective of supporting a customer-focused cultured, our Board, Executive Team, Senior Managers and team members played an active role in the engagement process.

Finally, to build customer understanding of the regulatory arrangements and trust in our regulatory proposal, we plan to involve customers throughout the entire price reset process, giving them access and opportunities to provide input and feedback and show them how this was used to shape this Draft Plan.



Figure 2.3 outlines our customers and stakeholders identified for engagement.

Figure 2.3: Our Customers & Stakeholders



2.2 Our customers and stakeholders

Jemena has a diverse customer network, with many factors contributing to and influencing their overall experience with electricity and energy. For our residential customers, this includes the type of household they live in, if they rent or own their own home, age, socio-economic status, cultural background and diverse lived experiences, such as living with a disability or mental health difficulties.

For our small to medium-sized businesses, large businesses, local councils and retailers, this includes the size of their business, the type of business and how they use energy. Although each customer is unique, they have many overlapping and common factors or circumstances that make up their household. These contribute to our ability to have "cross-customer" impacts within the recommendations and decisions made in our Draft Plan. It also allows us to have mature and robust conversations on equity and equality that consider a broad range of factors, circumstances and influences.

Our engagement program aims to meet the specific needs of our electricity customers, taking into consideration:

"Feeling like I'm being listened to is really important and being able to make a small contribution." Customer Voice Group member.

- the rich diversity of our customers
- learnings from previous price reset customer engagement processes
- industry best practice
- the unique requirements, issues and challenges our customers face and their growing expectations of Jemena and the energy industry
- our desire to engage with customers experiencing vulnerability and
- dedicated opportunities to create synergies with the other Victorian electricity distribution network service providers for joint engagement, where there are common themes amongst all Victorian customers, enabling consistency and efficiency in our engagement approach across all Victorian networks.

2.3 Collaborating with customers and stakeholders

2.3.1 Level of influence customers can expect to make

We place customers at the heart of our decision-making for the future of our electricity network. The highest level of engagement being sought through this process of the **International Association for Public Participation's** (**IAP2**) Engagement Spectrum is ***Collaborate***, and where possible ***Empower***.

Collaborate

Collaborate means: We will work together with customers to formulate solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.

Figure 2.4: IAP2 Public Participation Spectrum

Increasing impact on decision

	Inform	Consult	Involve	Collaborate	Empower
Public Participation Goal	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development and the identification of the preferred solution.	To place final decision making in the hands of the public.
Promise to the public	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

https://iap2.org.au/wp-content/uploads/2020/01/2018_IAP2_Spectrum.pdf

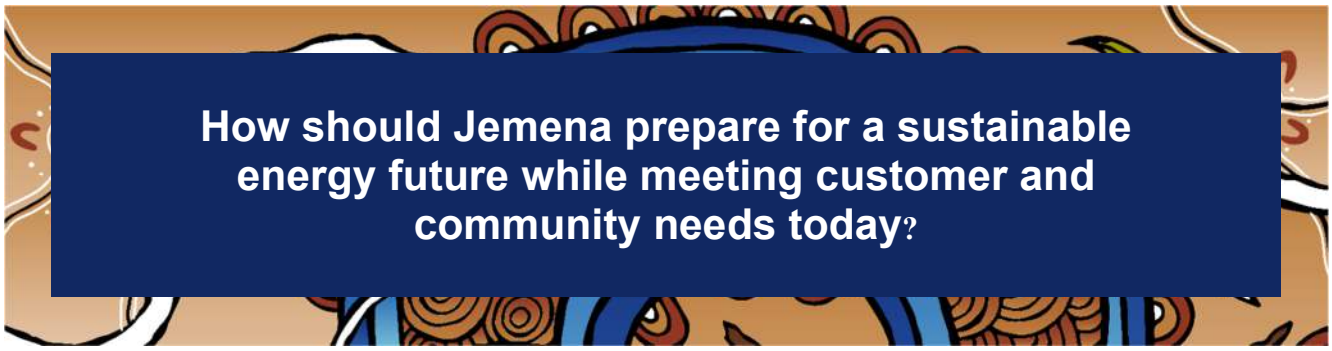
Table 2.1: How we are responding to the IAP2 Core Values through our engagement

IAP2 Core Value	Our commitment to ensure this	Evidence of this
Public participation seeks input from participants in designing how they participate.	We will co-design the process with key internal and external people, including the previous panellists, small to medium businesses, large users and retailers to review the process and offer suggestions about best-fit design.	Dialogue between participants throughout the co-design process to identify the best approach to engaging participants.
Public participation provides participants with the information they need to participate in a meaningful way.	Whenever possible we will provide information in advance, in a format that works for them, so that participants can consider it prior to attending sessions. Information will be provided in a variety of channels, formats and plain language (including other languages) to make it interesting, informative, accessible and engaging.	A balanced set of information has been provided. Communication tailored for audiences and channels appropriately identified.
Public participation communicates to participants how their input affected the decision.	Throughout the information gathering and decision-making process we will regularly explain how and where participant input has influenced our decisions. We will be transparent about our decisions, clear about where there is and isn't agreement on complex issues and provide a clear rationale for the outcome.	Clearly demonstrated how participant input has influenced the process.
Public participation is based on the belief that those who are affected by a decision have a right to be involved in the decision-making process.	We will meaningfully engage with a broad spectrum of our customers so we can deeply understand and appreciate how our customers are affected by the decisions we make. We will ensure our customers that are often not heard are supported to participate and that a random recruitment approach will support the deliberative engagement.	Provided a clear problem statement. Decision-making process is clearly communicated. Affected stakeholders identified and included.
Public participation includes the promise that the public's contribution will influence the decision.	We have committed to genuinely and transparently collaborating with our customers so they can help shape our Plan. At each engagement session we will clearly explain the scope of influence there is for the topic we are exploring and how participant influence will shape our decisions.	Appropriate level of engagement endorsed by internal decision makers. Level of stakeholder influence clearly communicated to stakeholders.
Public participation promotes sustainable decisions by recognising and communicating the needs and interests of all participants, including decision makers.	Our engagement processes enable us to explore the needs, interests and values of all participants. Our goal is to deeply understand our customers' experiences and build energy capability of customers who may face barriers or may have access issues to our services. Recruitment of a People's Panel will be truly representative of the diversity of our customers. We will communicate and advocate for our customers' needs through the price reset and through other energy distribution avenues.	Understood of participants values and interests. Engagement techniques identified to support interests and needs.
Public participation seeks out and facilitates the participation of those potentially affected by or interested in a decision.	We will seek to understand the diversity of our customer base, both individual and business, and we recognise that people are affected by our decisions in different ways. To more deeply understand those differences, we are establishing Customer Voice Groups to capture the lived experience of a diverse range of customer groups.	Participation opportunities enabled contribution. Thorough stakeholder analysis completed.

2.4 Our challenge and engagement remit

With a constantly changing environment and cost of living pressures, providing a fair energy future has never been more important. With the increase in customer uptake of renewables and other technologies, people are rapidly changing both how they use electricity and what they expect from our electricity network. This compels us to rethink the best ways to plan for the future and charge for electricity in a way that is fair and equitable for everyone and meets different customer expectations. Throughout the engagement process we asked our customers to think about and make suggestions and recommendations on the question:

2.4.1 Our promise to customers



We promise to…

- Provide factual and easy to understand information to help build your knowledge
- Follow up on your information requests in a timely manner
- Be accountable for what we say we will do
- Hear, learn and understand from you and acknowledge that your lived experience is valuable
- Document, record and share all inputs
- Base the Regulatory Proposal on your ideas, priorities and recommendations to the maximum extent possible



2.5 Planning and co-designing the engagement program

In May 2023, we reconvened our previous 2018-19 People's Panel to seek their views on customer engagement through a co-design workshop. The purpose of this was to have customers help shape our engagement strategy and program for developing our Plan.

24 former People's Panel members who shaped our 2021-26 regulatory proposal came together as part of this session. We also used the opportunity to share how we have progressed the recommendations they made in 2019.

The former People's Panel members shared their reflections on the experience, many expressing how invaluable the process was in building their energy literacy and being able to represent customers in their local communities.

This included hearing their feedback on making the next People's Panel a success and how we could engage more deeply with customers across our electricity distribution network through dedicated customer voice groups.

"What I was amazed at, was we've come from very diverse backgrounds yet we're all very interested in sustainability. How do we actually maintain electricity distribution in the future? How do we do it in a way that's good to us and good for the environment." Customer Voice Group member

We also utilised our engagement platform, **GridTalk.com.au**, to effectively engage with wider customer groups, including small—to medium-sized business customers and large commercial and industrial customers.

Their input allowed us to co-design our work program with our customer base in mind.



2.6 Engagement program

Our engagement strategy includes 11 core engagement streams designed to enable us to deeply understand and engage with the full spectrum of customers we serve in ways that best suit them.

To strengthen and unify the engagement groups, we embedded ways to interconnect groups to cross-pollinate ideas and gather feedback. This included opportunities for groups to:

- meet each other and understand what each brings to the process
- have access to key messages and outcomes reports
- have dedicated connector roles to observe and report back.

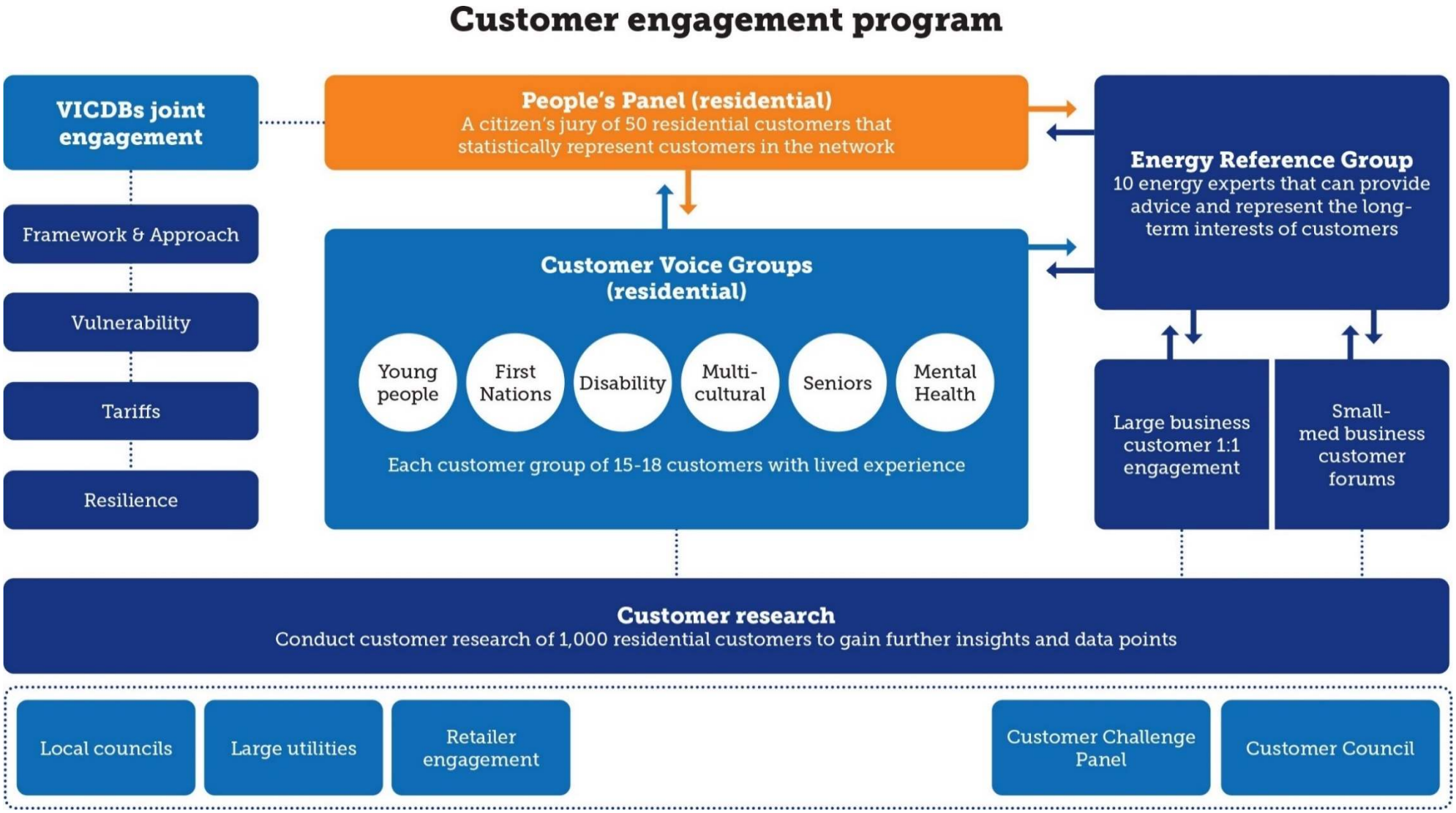
This approach enriched the understanding of diverse customer needs and increased the understanding of customer needs and perspectives across all engagement streams.

It also included strong evaluation mechanisms and an independent evaluation of our deliberative customer engagement approach, ensuring that throughout the process, we built in evaluation and monitoring mechanisms to ensure we meet and exceed best practice standards and regulatory requirements.

Our core engagement groups included:

- An **Energy Reference Group** – an expert energy panel that discussed complex issues and provided clear, independent advice and recommendations that have the long-term interests of customers in mind.
- A **People's Panel** – a People's Panel which included approximately 50 diverse customers who make up a statistical representation of customers in our network area.
- **Customer Voice Groups** – six customer voice groups, including up to 18 members, met four times. These groups included customers with different lived experience. This included customers with disability, customers who experience mental health difficulties, customers from multicultural communities, young people, First Nations Peoples, and seniors. Each group had a senior leader from Jemena to help champion the group to connect, listen and understand their needs. The groups each provided advice and insights to the People's Panel for their consideration in making recommendations given their unique needs.
- **Customer research** – conducting a bespoke survey of 1,000 residential customers from across our network for the price reset to gain a broad spectrum of views and data points.
- **Joint engagement by Victorian electricity distribution network service providers** – joint engagement sessions with Victorian electricity distribution network service providers across the topics of framework and approach, affordability and equity, reliability and resilience, network tariffs and customers experiencing vulnerability.
- **Small to medium sized businesses** – small business forums, surveys and in-depth interviews/meetings with diverse small to medium sized businesses across our network.
- **Large commercial and industrial customers** – surveys, large user forum and in-depth meetings to engage with large commercial customers.
  - **Developers** – survey housing developers and designers of houses to understand their needs.
  - **Electricity retailers** – bespoke engagement with electricity retailers and retailer bodies, including retailer forums, surveys, in-depth interviews/meetings and engagement with customers affected by family violence.
  - **Local councils** - surveys, in-depth interviews/meetings and Local Council Forums to understand the needs of local councils and the local communities they service.
  - Our **Customer Council** – involving our Customer Council members, including providing them ongoing oversight of the engagement program and a dedicated workshop on the price reset.

Figure 2.5: Customer engagement program





Executive and Board Level involvement in engagement

We had more than 45 Jemena representatives take part in our engagement program, including presenting to customers, answering questions and discussing customer needs. Our Managing Director and a member of our Board were involved in People's Panel sessions to listen to and connect with customers.

We also had strong executive team involvement participating in over 300 hours of engagement sessions.

2.7 Delivering our engagement program

2.7.1 Residential People's Panel (a Citizen's Jury)

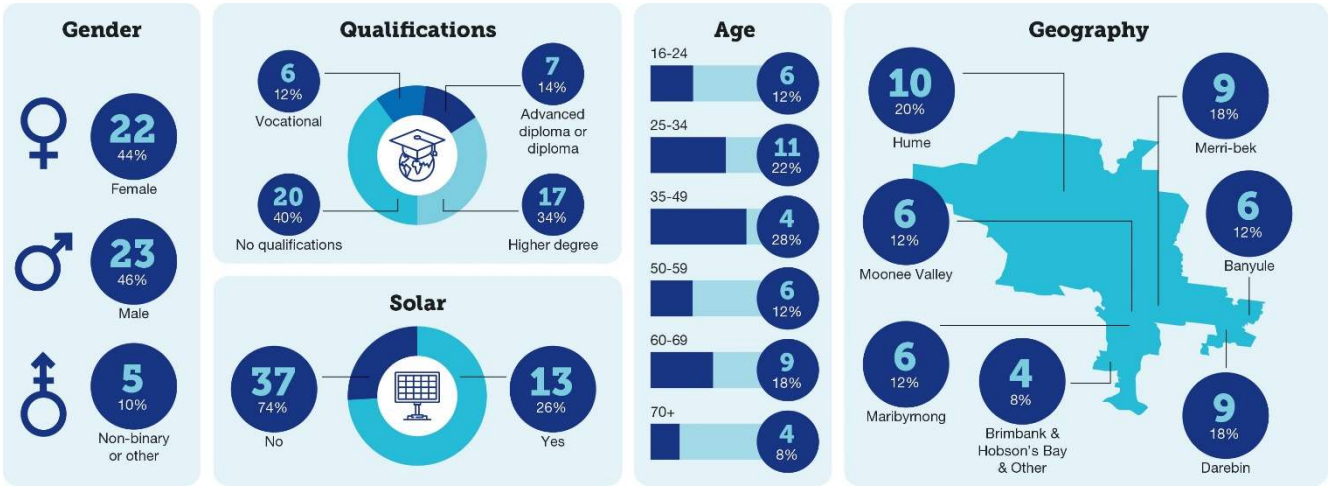
A People's Panel (also known as a citizen's jury) is a democratic approach used to bring together a randomly selected group of people who broadly represent the community. People's Panels or Citizens' Panels are powerful examples of deliberative democratic engagement. This means the community affected by a decision we make are put at the centre of our decision making process. It brings community members closer to Jemena's Executive Team and the activity of decision making for the future of Jemena's electricity network.

From October 2023 to April 2024, we held dedicated sessions for the People's Panel.

Activities undertaken to engage customers on the People's Panel included:

- **clear question (remit)** to focus the deliberations on a broad range of information from a variety of sources relevant to the remit conversations
- **site tour of the Broadmeadows Substation** to understand how our assets work to distribute electricity
- demonstration of the role of a Line Worker and operational equipment to understand how our assets work to distribute electricity
- **access to information and experts**
- **Q&A with Jemena staff** and panel-identified key speakers
- **44.5 hours per person of discussion and deliberations across** seven panel sessions (two evening sessions including orientation, five full panel days) support from facilitators experienced in delivering deliberative processes
- **an online portal (GridTalk.com.au)** that provided a central place for participants to access relevant information inputs as well as a discussion forum
- **group agreement**, where a supermajority (80 per cent or more of the panel said they could live with it or better) was needed for a recommendation to be included in the final report.
- After five full days of deliberative engagement, the group made 16 recommendations to us on how we should prepare for a more sustainable energy future while meeting customer and community needs today.

People's Panel demographics



2.7.2 Residential Customer Voice Groups

We established six dedicated **Customer Voice Groups** with diverse residential customers who may experience vulnerability or have greater barriers to accessing and navigating their way through the energy system.

We **partnered with 100 residential customers spread over six dedicated Customer Voice Groups** for:

- Customers with a disability
- Customers experiencing mental health difficulties
- Young customers
- Seniors
- Customers from multicultural communities, including new arrivals
- First Nations customers and communities.

We recognise intersectionality and the natural overlap that occurs across our Customer Voice Groups which reflect the richness of the diversity of our customers. The purpose of the core six groups was to capture views through a particular lens while considering the many characteristics, traits and experiences of each customer.

Each **Customer Voice Group** met four times over eight months to provide **constructive feedback on a range of topics**, including:

- energy usage, consumption and energy needs
- pricing, equity and fairness
- customer service and customer experience
- network reliability and resilience
- digitisation and automation of the electricity network and cyber security.

Each session **captured constructive feedback** by:

- exploring lived experiences across each topic
- deliberating trade-offs and dilemmas
- seeking customer preferences and priorities for each topic.

Each session had a dedicated Jemena senior leader accountable to the group to act **as Champion of the Group who:**

- connected, listened and built an understanding of the customers' lived experiences and priorities
- answered questions in-session
- shared learnings across the business and helped advocate for their needs.

Each session and topic had dedicated subject matter experts that:

- presented and explained complex concepts simply
- provided information in engaging formats (presentations, videos, analogies and diagrams)
- enabled customers to understand the challenges we face and the options for preparing for a more sustainable future
- answered questions in-session to help build customer capability to provide informed feedback.

The groups intersected with **Jemena's People's Panel** where their top priorities were shared, along with the opportunity to attend a People's Panel session.



First Nations Engagement and Customer Voice Group

We recognise Aboriginal and Torres Strait Islander peoples as the oldest continuous culture in the world, and the original inhabitants of the land on which we live and work.

We have a proud history of partnering with Aboriginal communities throughout the development of major projects across Australia, particularly in Queensland and the Northern Territory.

Through the First Nations Customer Voice Group, we aimed to strengthen and build our relationships with First Nations peoples living and working in and around the Jemena electricity network in Victoria and as Traditional Owners.

We established the group in October 2023 as part of our commitment to reconciliation and willingness to learn from First Nations Peoples.

The First Nations Customer Voice Group met four times online from October 2023 to April 2024 and included **18 First Nations Peoples** that were a mix of:

- First Nations Peoples living and working in and around Jemena's network
- Traditional Owners
- Customers
- Small and medium business customers.

Jemena's **Executive General Manager for People, Safety and Governance was the Champion of the group**, attending all sessions to connect, listen and advocate for the group's' needs.

After feedback from the first two sessions, we identified the need for an Indigenous Facilitator to facilitate the group to strengthen the cultural safety. Karen Milward, a First Nations Consultant, trainer and facilitator and a proud Yorta Yorta woman based in Melbourne, facilitated the remaining two sessions, responding to the needs of the group and enhancing the flow and depth of discussions.



Disability Customer Voice Group



People with a disability make significant and valuable contributions to the community. We know that one in six Australians has a disability[7] and may face different barriers when accessing essential services.

In establishing a dedicated group for customers with a disability, our goal was to understand the barriers, needs and energy experiences of customers with a disability.

Established in October 2023, the group included **15 customers with lived experience of a disability.**

Jemena's **General Manager Procurement, Property and Fleet** was appointed the Champion of the Group and actively engaged with the members at each session.

The group gave rich insights into the lived experiences of customers with a disability and their energy experiences across a range of topics. Affordability and keeping energy costs as low as possible were a top priority. Another key priority was reliability and resilience given the critical impact power outages can have on customers with a disability who may rely on medical equipment or temperature-controlled environment to maintain health.

Mental Health Customer Voice Group



Forty-five per cent of Australians will experience mental health difficulties at some point in their life. We also know that one in five callers who ring the National Debt Helpline to raise an energy issue are also experiencing mental health difficulties.[8]In October 2023, we established the Mental Health Customer Voice Group to ensure we can reduce barriers for customers who experience mental health difficulties and identify improvements we can make.

The group is made up of **17 customers who experience mental health difficulties** and Jemena's **General Manager, Regulation** was the group Champion and involved in each session with group members.

Along with affordability, empathy in customer service was one of the group's top priorities. They identified the need for streamlined customer service processes, and interactions (online or phone) that display active listening, understanding, and are easy to navigate for customers who are experiencing mental health difficulties.

7 Australian Institute of Health and Welfare, People with Disability in Australia (2022)

8 Consumer Policy Research Centre (CPRC), Exploring regulatory Approaches to Consumer Vulnerability: A Report for the AER, February 2020, ('CPRC report'), Page 29

Multicultural Customer Voice Group



The residential customers in our network are a part of vibrant and rich multicultural communities. We know customers in our network speak 260 languages, come from more than 200 countries and follow 135 different faiths.

As a provider of an essential service, it is vital that we meet the needs of the diverse customer base in our network. Established in October 2023, the group included **18 customers from multicultural communities, including new arrivals**.

Jemena's **General Manager Digital Platforms and the Commercial Manager Electricity Distribution** were the Champions of the group who met and engaged with members at all sessions.

In addition to affordability, the group's top priority was ensuring we communicated authentically with all customers across a range of channels and found ways to listen to and understand their needs.

Seniors Customer Voice Group



In Victoria, there are over 1.5 million Victorians aged 60 years and over.[9] The older population will increase more quickly than younger cohorts with an expected 60 per cent increase in the older population over the next 25 years, as opposed to the population aged 20 to 59 years that is expected to grow by 40 per cent.[10]

This means as an electricity distribution network service provider, we need to identify ways to meet the needs of senior customers and ensure our service delivery and customer service meets their needs.

Established in October 2023, the group included **18 senior customers.**

Jemena's **General Manager, Customer and Commercial** was the Champion of the group.

Accessible communication and affordability were top priorities for seniors—many had rooftop solar—who were concerned about the increase in their bill due to future tariff changes with the impact of excess solar on the grid. This caused an even greater priority to ensure that costs remain as affordable as possible.

9 *Ageing well in Victoria: an action plan for strengthening wellbeing for senior Victorians 2022–2026, Page 7*

10 *Ageing well in Victoria: an action plan for strengthening wellbeing for senior Victorians 2022–2026, Page 7*

Young People Customer Voice Group

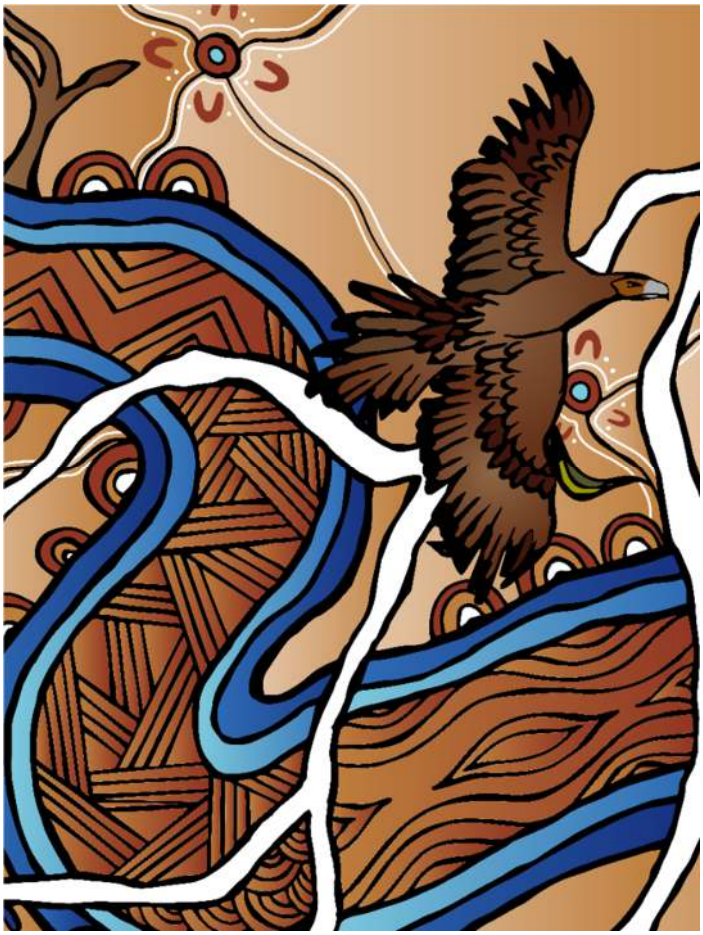
Young people are our future leaders, policymakers, and decision-makers. We recognise their diverse perspectives to ensure we create a sustainable future for them.

Young people are often our newest customers, and some are our future customers. By capturing their voices, we aim to identify some of the challenges young people face and their hopes and aspirations for the future of energy.

Established in October 2023, the group included **11 young people** and Jemena's **Chief Digital Officer** as the Champion of the group who met and engaged with members at all sessions.

Affordability was a top priority for young people, who have less control over their energy consumption as many are renting or unable to invest in renewables. Young people recognise that change is investable and that there will be major shifts with the energy transition.

Young people want us to be as sustainable as possible and ensure we empower customers through the energy transition, invest in renewables, and ultimately lead by example in driving zero emissions to create a more sustainable future.





2.7.3 Large commercial and industrial customer engagement

We commenced engagement with large commercial and industrial customers in November 2023. We held a series of one-on-one in-depth meetings and conducted a survey to identify the challenges, energy priorities and goals of our large customers. The feedback from the survey and sessions informed the format for a Large Customer Forum held in February 2024.

The Large Customer Forum included 17 large commercial and industrial customers, including Melbourne Airport, those from the health sector, telecommunication businesses and the engineering sector, along with representatives from the Victorian Government's Department of Energy, Environment and Climate Action and the Essential Services Commission. The forum enabled these large customers to share their current and anticipated energy-related challenges and opportunities, describe their desired outcomes and communicate their expectations for Jemena's role in supporting those outcomes.





2.7.4 Small and medium business engagement

We engaged with the small and medium-sized businesses in our network, including café and restaurant owners, independent supermarkets and design consultancies, by initially sending out 10,000 direct letters to take part in a small business survey and forum.

Through this recruitment process 17 small and medium businesses registered to take part in the forums in May 2024. We ran an information session for businesses on the challenges we face in preparing for the future and the price reset process. We ran two forums which nine businesses attended, providing in-depth feedback and advice on a range of topics.

We also distributed a survey to small and medium business owners to provide their feedback on tariffs and a Small Business Tariff Consultation Paper to have their say on tariff structures.

2.7.5 Residential customer research

In addition to the People's Panel, we conducted quantitative customer research with 1,000 residential customers in July 2024 to seek feedback on a range of topics, including:

- network resilience and responding to extreme weather events
- network reliability
- digitising and automation of the network and new technologies
- accessible customer communication, including having access to information in multiple languages
- customer education.

The research aimed to understand the level of importance our residential customers place on the outcomes and priorities of our Customer Voice Groups and People's Panel.

2.7.6 Energy Reference Group

An **Energy Reference Group** was established to provide expert advice on key issues relating to the next regulatory period while representing the long-term interests of our customers.

Ten energy experts were appointed from various industry, commercial, academic, and government sectors through a robust recruitment campaign.

Members include:

- Andrew Richards, Chief Executive Officer, Energy Users Association of Australia
- Gavin Dufty, Executive Manager, Policy and Research, St Vincent de Paul
- Kate Hansen, Client Lead, Kraken Technologies
- Kellie Larson, Director Verve Strategic Consulting
- Lynda Osborne, GM Global Strategy, Technology, Xero
- Morley Muse (Dr), Co-Founder and Director, iSTEM
- Neil Watt, Network Strategy Adviser
- Ruchika Deora, Head of Product, SEC
- Ruth Harland, Utilities Officer Moonee Valley City Council
- Tim Callaghan, GM Strategic Initiatives, Victorian Chamber of Commerce and Industry.

In a mix of in-person and online facilitated sessions, members were invited to provide advice, perspectives and recommendations on a range of topics and challenges that Jemena might face as an electricity distribution network service provider.

Energy Reference Group members provided advice on a range of regulatory topics, including:

- electricity network stability, network performance and reliability
- digitisation and automation of the network
- cyber security and data access
- bushfire risk and mitigation
- risk mitigation
- electrification and the energy transition
- export capacity and import to the electricity network
- incentive schemes, including Customer Service Incentive Schemes
- pricing and tariff structures
- digital systems
- resilience
- customer communication and engagement, including understanding customer priorities and needs.

Along with advice on dedicated topics, the Energy Reference Group made recommendations for the next regulatory period for Jemena to:

- be a trusted information source for information and decision making for customers
- focus on network stability in an unstable environment
- encourage batteries to realise network benefits
- accelerate electrification
- drive digital transformation
- make strategic investments in renewable energy to drive equitable and sustainable energy export decisions.



Energy Reference Group members also had oversight, involvement and connection to our customer engagement program, including:

- access to key insights from customer groups, including key messages and Outcomes Reports
- opportunities to connect with our residential customers and understand their needs
- participating in an expert panel at People's Panel sessions to help build customer capability of the challenges across the energy industry.

The Energy Reference Group will continue to provide advice throughout the entirety of the price reset process.

Dr Morley Muse, an Energy Reference Group member, said: "When the opportunity came to participate in the energy reference group, I thought it was a brilliant opportunity as it aligns with my interests. I'm very passionate about the environment, climate change, and how renewables will play a big role in the energy transition."



2.7.7 Local Councils



We recognise the vital and important role local councils play in supporting customers, our communities, and critical infrastructure across our electricity network. We also appreciate their dual role as both large electricity users and key stakeholders, and we value the strong partnership and open communication that we have developed with them.

We commenced engagement with local councils in November 2023 through a series of one-on-one meetings and a survey to identify their challenges, energy priorities and goals for the future. The feedback from the survey and one-on-ones informed the format for a Local Council Forum held in May 2024.

Local councils located in Jemena's network attended the forum to help contribute to shaping the future of Jemena’s electricity network.

The forum had 25 Local Council representatives who provided input into:

- customer education and customer vulnerability
- resilience and how to support recovery
- network reliability and the effect on pricing for increased or decreased reliability
- pricing and tariff structures and how we charge for electricity distribution
- sustainability and preparing for a low-carbon future
- digital solutions that make engaging with us on everyday transactions easier.

Local councils provided a detailed summary (via the Eastern Alliance for Greenhouse Action) on the preferences for public lighting programs for the next regulatory period. This outlined the support for replacing old public lights with LEDs in the next regulatory period and other key recommendations.

2.7.8 Retailers



Retailers play an important role in the energy supply chain and a vital role in servicing, supporting and interacting with electricity customers.

We commenced our engagement with retailers in 2023 through to May 2024. We engaged with retailers operating in our network through Joint Victorian electricity distribution network service provider tariff engagement workshops.

This meeting enabled retailers to:

- receive an update on the priorities customers have been sharing on the engagement program
- share their thoughts on how retailers and Jemena might work together to help respond to these priorities
- share their feedback on proposed pricing levels (tariffs) and future network opportunities.
- The forum was attended by 19 representatives from nine retailer organisations, as well as staff from the Victorian Government’s Department of Energy, Environment and Climate Action and the Essential Services Commission and 13 Jemena staff members.



2.7.9 Joint Victorian electricity distribution network service provider engagement



We worked with Victorian electricity distribution network providers AusNet, CitiPower, PowerCor and United Energy to jointly engage stakeholders on select energy topics. Joint engagement occurred across select topics such as:

- framework and approach
- customer vulnerability
- resilience
- tariff structure statements.

We held two online sessions on the topic of **Framework and Approach** with energy stakeholders and customer advocates across Victoria.

We held two in person **customer vulnerability** workshops to understand the needs and challenges of customers experiencing vulnerability. As a part of our joint engagement with Victorian electricity distribution network service providers, we conducted our last joint engagement on **tariffs**. More than 50 stakeholders came together, including energy experts, customer advocates and electricity retailers to contribute to a statewide approach to tariffs at the third and final forum in April 2024.

Joint tariff engagement explored topics of equity, efficiency and customer bill impacts and will help inform our Tariff Structure Statements.

Key themes to date have included:

- residential tariffs and the introduction of a universal 'solar soak'[11]
- moving customers to a proposed new tariff structure
- residential 'Time of use' tariff structure changes
- support for 4pm – 9pm as the new 'peak'.

2.7.10 Customer Council engagement

The Jemena Customer Council was established in November 2011 to build strong working relationships with industry stakeholders, key customers and customer advocates. Through our Customer Council, we have an ongoing source of the voice of customers from across our customer and stakeholder groups.

As we developed our Draft Plan, we met with the Customer Council at each phase of our engagement program to seek their input and advice on both the structure and the content of our engagement program.

We provided regular updates and oversight of the engagement plan at quarterly meetings from March 2023 to July 2024.

We also held price reset workshops with Customer Council members in May 2024 to hear their views and seek expert advice on specific topics related to our Draft Plan.

11 During the middle of the day, a lot of energy is generated through photovoltaic rooftop systems. This generation has grown so much that it is causing the electricity system to become unstable. One way to address this issue is to increase electricity usage at the same time the electricity is being generated. We are proposing a lower tariff charge in the middle of the day to encourage customers to increase their usage, thereby "soaking up" a lot of the excess rooftop generation.



2.8 Customer priorities and recommendations

We understand that our customers and stakeholders have unique circumstances and realities regarding their household, business, organisation, or industry.

Through our engagement, we have spent time deeply listening and understanding our customers' needs, preferences and priorities. This section captures the priorities and recommendations from across our core customer engagement groups and from our customer research.



2.8.1 People's Panel Recommendations

The People's Panel provided the below recommendations on how we should prepare for a more sustainable energy future.

(Please note that we have elected to produce these recommendations in the language and form presented by the People's Panel and these recommendations have not been edited or curated by Jemena.)

Recommendations	Description	Why this is important
1. Equitable and Fair Tariff Reform	Implement a tariff structure that is fair for different types of consumers e.g. solar (with or without battery) vs non solar. Tariff structure to be as follows to make it fair based on your usage and supply capability. Consumption Charges: (applies to everyone) – Supply Charge - 3 tiers of supply charge based on how much you use during the day, e.g. low, medium, high consumption – Consumption Rate - 3 tariffs of consumption, Off Peak, Solar Soak, Peak Feed In Credit (reward for feeding in solar): – Daytime solar soak reduced Credits – Nighttime peak time higher feed in Credit (benefits battery owners) Export Tariff: opt in charge for users to export to the grid, this gives access to higher feed in credits	– To ensure inclusivity and financial benefits for different consumer groups, i.e. socio-economic backgrounds. – Incentives everyone to tailor their consumption behaviour to suit their requirements Vs cost savings – Balances the load/generation on the grid reducing over generation during the day meaning lesser requirement to augment the grid to support over generation. – Encourages continued sustainable energy adoption and practices (solar, battery and consumer behaviour). – Incentives generators (solar owners) to take on in home battery systems to get better feed in rates. – Tiered supply charges make it fairer for different consumers, e.g. lower consumption means lower supply charge, whereas currently it is a single supply charge for all
2. Corporate responsibility - addressing sustainability /carbon footprint	Jemena to commit and continually improve on its environmental practices and continuously reduce its impact on the environment. Jemena to undertake and investigate improvements to its own operations (e.g. electrified fleet vehicles, office spaces to use solar), to reduce the impact on the environment. Currently implemented equipment to be replaced with sustainable options once they reach the end of their life cycle (e.g. wooden or concrete poles) Jemena to clearly communicate their net-zero plan and carbon offset strategies to customers and the public.	– There should be long term commitments toward environmental targets to ensure a sustainable future. Communication and transparency with customers builds trust and overall satisfaction with Jemena's business practices. By implementing new technologies or sustainable options in their practice, Jemena can further reduce its impact on the environment without putting the cost on customers
3. Network Reliability	Jemena needs to prioritise investing in reliability by assessing, building, and maintaining the network to meet changes in operating conditions and withstand network failures	– It is important to invest in network infrastructure with a focus on: – Improving and maintaining service standards and customer experience – Reduced frequency in power outages – Continue to invest in upgrading the network's ability to "self-heal" – Flexibility to accommodate network growth and demand
4. Network Resilience	Jemena needs to prioritise investing in network resilience so it can withstand and recover from the effects of a natural hazard or disaster	– It is important to invest in network infrastructure with a focus on: – Replacing and upgrading fragile assets – Using technology to better predict, manage and respond to significant outages – Minimise impact on the customer – Develop, maintain and implement a Resilience Strategy.
5. Digitisation and automation to increase economic efficiency	Innovation to achieve greater efficiency with a lower network cost recouped over time Use digitisation and automation technology (AI programs) Using advanced monitoring equipment for determining replacement/upgrading of wires Upgrade & reconfigure network i.e. to increase & decrease voltage	– make smarter decisions based on factual parameters (consumer usage, distribution factors) – monitor the network to rationalise the distribution to maintain the network stability – generate efficiency to reduce cost (such as cost of upgrading network) – * Drive efficiencies and reduce costs associated with network upgrades by adopting digital technologies and automated processes. – long term savings through less maintenance of assets and less operational manual inputs
6. Enable storage by distributors	Research and develop options and alternatives for energy storage with the intention of installation. Advocate to regulators and governments to allow network service providers to own and operate batteries. Collaboration with Victorian Government and peer Victorian electricity distribution network service provider to share learning and develop common standards. Standardising battery connection arrangements using a simplified model to minimise costs and accelerate distribution. Utilising mobile storage to react to major events and provide network support where needed on a short-term or temporary basis.	– Batteries act as a communal backup for severe weather events and also for damage to infrastructure, and enhance maintenance downtime. • To reduce grid instability, promote efficient use of electricity during peak times, and allow customers to utilise electricity flexibly without being affected by the export charge. • To improve grid stability by removing over supply issues and remove the need for the export tariffs • Large scale storage is more commercially viable and environmentally feasible than individual household/business batteries • Help combat the disruption of solar export across the grid. • Jemena could possibly use this stored energy to offset operational costs e.g. charge EV trucks, offices etc. (This may cause problems as power is generated by customers.) • Jemena could also pull data from existing case studies or other implementations of communal batteries to further justify use-cases that we haven't thought of yet. May even refer to other countries who have a different rule set to us, and analyse the pros/cons of the situation

Recommendations	Description	Why this is important
7. Customer Education	Provide customers with tailored information to guide their decisions about energy usage and investments to reduce their costs and use renewable energy, for example – How time-of-use tariffs affect bills, and strategies to benefit from this – Benefits of investing in rooftop solar, batteries, and EVs ○ Impact of appliances on bills and sustainability Ensure information is easy to access, understood by all customers, relevant and practical. Particularly important to communicate through diverse channels and media to reach customers with different abilities.	– Influence customer behaviour and investment decisions that would contribute to the grid stability with minimal upgrade to the grid infrastructure. – Empowering customers to engage in behaviour and decision-making that increases sustainable energy usage and is cost saving. – Promote transparency and understanding in billing and costs relative to customer usage and energy sources
8. Jemena to maximise green energy within their focus	Jemena to research and investigate solutions: – to uptake more green energy from: – Consumer Energy Resource) – Green energy generators – to create an ideal grid that is more conducive to solar uptake and distribution	– Reduce carbon footprint and promote sustainability. Support the growing push/options for green energy. Current network setup is not ideal to uptake more CER.
9. Collaboration to ensure efficiency	Widen collaboration (sharing of ideas and information, getting advice, discussing strategy and implementation) with various groups/stakeholders within their areas of expertise, allowing a streamline in effort, time, and cost expended.	– To collaborate on recommendations in line with respective parties' expertise to seek cost effective and sustainable outcomes for best practice. – Collaborating with peer energy distribution network service providers to ensure investments in infrastructure and technological advancements being implemented are most beneficial – Collaboration with energy groups, councils, on sustainability approaches and implementation • Collaboration with retailers and end users on consumer experience and expectations The above would reduce duplication of effort, share cost benefit across the industry, and encourage joint investment in technology and sustainability practices
10. Incentivise battery take-up	Encourage investment in batteries to help offset the increasing amount of solar being generated by more and more households. – Enable incentives to support battery uptake (such as rebates, lower tariffs etc.) to allow Jemena to better manage solar soaking. – Redistribute the stored energy during nighttime peak across the network, providing lower tariffs for all customers (both solar and non-solar). This makes the distribution more efficient and cost effective for everybody (including Jemena).	– Reduce grid stress and prepare for future increase of solar implementations. – Trigger enablement of new systems which are needed to manage a new era of upcoming technologies which are inevitably required. – Benefit ALL customers by redistributing excess stored energy
11. Long-term sustainable operation of Jemena's grid and network	Jemena to commit to environmentally sustainable operations of the company. Using technology and sustainable alternatives for the management and development of the grid infrastructure that would: – Be cost effective in maintaining the future network. – Provide long-term savings to Jemena and its customers. – Be adaptable and scalable for future needs*. – Reduce Jemena's overall carbon footprint. This recommendation should not impact network resilience or reliability.	– Prioritise environmental sustainability. • Achieve carbon reduction targets. • Ensure affordability while meeting ethical and community expectations
12. Preparing for Electric Vehicle charging increase	Jemena to plan and monitor the use of EV. Use the data to encourage EV charging station providers to install publicly available charging within the Jemena network area. Align goals with projected EV demand. Support industry partners in increasing the number of EV chargers, enabling an operating model that minimises negative impacts on the grid and customer costs. Develop and communicate clear guidelines to EV charging customers (e.g. how to use, when to use, charger locations). Collaborating with councils to optimise EV charging solutions (e.g. EV car spaces and location selections)	– Publicly available chargers would allow people to charge their vehicles during the daytime, contributing to grid stability to solar soak periods. Public places could include train stations, shopping centres and hospitals; anywhere people leave their cars for long periods of time during the day. Communicating clear guidelines to customers ensures they know the best way to utilise EV charging.
13. Transparency in Tariff Structures to allow consumer choice	Provide clarity of tariff structures (relevant times/prices) to assist consumers in making informed decisions that align with their energy needs and preferences against the offered tariff structures – Achieve better understanding of the different advantages/disadvantages of various tariff structures for solar and non-solar customers	– Understanding of different tariff structures available ensuring customers can choose one that best suits their needs (potentially by working with retailer during sign up etc) – Ensuring that tariff information is accessible and understandable to everyone

Recommendations	Description	Why this is important
14. Jemena to champion renewable energy in new developments & housing estates	Jemena to champion the use of renewables (solar) and energy storage (batteries) in new building developments and housing estates. Jemena to encourage the use of renewables and energy storage where possible to help reduce network and customer costs.	– Installing energy storage from the start reduces cost of acquisition. – Future proofing building for renewables whilst reducing distributor network costs. – Reduces ongoing costs for all customers on the network
15. Efficient and accessible communication from Jemena to customers	Increase access to special needs customers with accommodations for advocates or a proxy as point of contact. – Accessible and varied channels of communication to ease customer access – Timeliness of communication – Transparent and clear information – Make Jemena more approachable to customers through two-way communication – Continuous development focused on improved communication	– Increase public understanding of information from Jemena and reduce confusion – Improve customer service and satisfaction – Reduce anxiety and uncertainty of customer
16. Ongoing service excellence to Jemena customers	Ensuring ongoing service standards to its customers in the delivery of Jemena's services across the board. Ensure Jemena's excellence at all levels, benchmarked with its peers (other distributors), the regulatory body and its customers. Service excellence focused on KPIs that's transparent, monitored, tracked and communicated publicly. Ongoing improvement through implementation of latest technology. Provide opportunities for feedback, and perform internal reviews, to identify opportunities of improvement to service standards.	– Improve Jemena's reputation and standing • Improve customer satisfaction across the board – Ensure Jemena is held accountable and maintains customer interest at hear



2.8.2 Residential Customer Voice Group priorities

Through listening, connecting and engaging with our residential Customer Voice Groups, a range of customer priorities have been identified. Each group had similar but nuanced energy priorities with different reasons for why they were important and meaningful to them. The section and tables below outline the priorities of each group and their importance.

First Nations Customer Voice Group

The table below highlights the priorities of the First Nations Customer Voice Group based on group discussions.

Priority	Why this is important
Affordable electricity supply	– Given the significant increase in the costs of living, First Nations customers want the most affordable price for electricity as possible. It is of high importance to keep costs down and to note the strong sense of community, and that many First Nations Peoples often play a role in supporting their families.
Cyber security & data protection	– Cyber security and data protection is critical to the First Nations group, especially the protection of sensitive customer data such as contact details (phone numbers and addresses). – The group identified the increased risk of family violence for First Nations communities as opposed to non-Indigenous Australians, making the protection of sensitive customer information critical to customer safety.
Sustainable operations	– The First Nations group wants the operations of our electricity network to be as sustainable as possible and for Jemena to strive to meet sustainability and zero emissions targets. This will ensure we are reducing our impact on the environment and contributing to a more sustainable energy future for generations to come.
Conservation & protection of land	– The First Nations group want to ensure the operations and maintenance of assets across the network to conserve and protect the lands across the network and surrounds.
Reliable and resilient network	– The group expects the electricity network to maintain high levels of reliability and increase the resilience of the network by responding quickly to extreme weather events. They noted that many Elders and First Nations community members may need support in getting back onto the electricity network and checking in on who would be severely impacted by power outages. In contrast, some community members would be able to live “off-grid” for shorter periods of time.
Community and customer education	– The group identified that Jemena needs to help educate First Nations customers and communities on the energy supply chain, energy-efficient appliances and ways to seek services or support. There is a need to partner with First Nations community organisations so that information reaches First Nations Peoples and is tailored to them as an audience.
Tailored customer service (culturally specific)	– To deliver tailored customer service to First Nations customers, the group would like us to explore a dedicated First Nations Liaison/ contact point (identified Indigenous person) to act as a point of contact for First Nations customers. The aim for this would be to build our capability to respond to First Nations customers in a culturally safe way for their electricity service needs.
First Nations employment, retention and procurement	– Drive recruitment of First Nations Peoples, including graduates who can be in engineering and IT roles to support digitisation (low ranges of Indigenous people in IT roles).
First Nations procurement	– The group wants Jemena to increase the economic outcomes for indigenous peoples through procurement and supporting First Nations businesses.
First Nations cultural training for employees	– Cultural training and awareness within Jemena was a strong priority of the group. The aim is for us to not only further support Reconciliation and build a deeper understanding of First Nations communities and cultures, but as a way to retain Indigenous employees and ensure the workplace is culturally safe.
First Nations grants	– As a part of Jemena’s Community Grants Program, it would be valuable and beneficial to consider a First Nations specific category or application process to further encourage and support Indigenous organisations and communities seeking access to the grants.

Disability Customer Voice Group

The table below outlines the top priorities of customers with disability based on discussions and feedback on a range of topics, trade-offs and dilemmas discussed with the group.

Priority	Why this is important
Affordability and stability of electricity prices	– Customers with a disability see affordability and stability in electricity pricing as a top priority. It is of high importance to keep costs down as much as possible to cater for a broad range of customers with a disability. Depending on the disability, there may be high costs associated with equipment or medical costs and their income may be low or rely solely on the Disability Support Pension. – The group want us to keep in mind that people living with a disability can be more vulnerable (medically and physically) and have increased needs for support and reliability but are also on a fixed income and financially vulnerable. They need the benefits of increased reliability but are often unable to absorb the required additional costs. – The impact of the prices of energy can be significant for customers with a disability who also face costs of living and interest rates along with costs associated with their disability.
Reliable and resilience network with minimal disruptions and outages	– Each disability is different, and each person has different needs. Depending on the disability, the energy needs of customers with a disability will be different. This means that power outages can be critical to some customers and have minimal impact on others. – The group noted the important of outage notifications and knowing accurate restoration times to that customers with a disability can put plans in place to protect their health. – Customers with a disability expect us to future proof our assets as much as possible to maintain high reliability and to withstand extreme weather events to minimise outages.
Accessible and clear communication	– Accessible and efficient communications to customers is paramount to customers with a disability. The group want us to enhance our communications to ensure the information we provide customers is easily understood, easy to find across multiple channels and that there are opportunities for customers to have two-way conversations with customer service team members (online, chat or phone).
Customer education	– The group see great value in increasing our customer education and helping empower customers by building energy literacy and a greater understanding of energy-saving tips, how to navigate through the energy system and what the future of energy will look like.
Ongoing customer engagement	– The group would like to see us maintain ongoing customer engagement, particularly to give customers with a disability and other customer groups a voice and be able to see the changes customers are advocating for on an ongoing basis.
Continue the Uniting Energy Assist Program	– Customers supported Jemena's Uniting Energy Assist Program and would like this work to continue to support customers experiencing hardship or vulnerability. – It was noted (as with all groups) that we need to do more to promote the program and make it easily available on the Jemena website so customers who need help are able to access support.

Mental Health Customer Voice Group

The table below outlines the top priorities of customers who experience mental health difficulties based on discussions and feedback on a range of topics, trade-offs and dilemmas explored with the group.

Priority	Why this is important
Affordable and stable electricity prices	– Affordability was a top priority for the group but equally having stability in electricity prices was just as important. – Customers told us that the uncertainty of electricity prices for some customers can trigger anxiety, fear, and stress and impact their mental health. Therefore the stability of the price and being able to budget and forecast expected electricity costs is crucial, with prices that are as low cost as possible without impacting the reliability of the network.
Empathy in customer service	– Displaying empathy and understanding in customer service is important to customers experiencing mental health difficulties. It makes customers feel safe, calm and comfortable talking to our team members or access information. – Sometimes customers with mental health difficulties can be impacted when a bill is not paid on time, or they are prolonged when speaking to a customer service representative. This may lead to delayed action which could escalate to a disconnection notice. Helping reduce anxiety for customers and showing empathy through customer service is a key part of meeting customer needs. – Making customer service as streamlined as possible helps reduce the times customers need to repeat their story and reduces the anxiety customers feel when contacting us.
Accessible communication across more channels	– The group recognised that all customers are very different and have their own communication and customer service needs. The way they interact and what they value differs. Some will talk a lot, some not enough. Some prefer text; some prefer the phone. – Valuing diverse interaction methods will give a better pathway to understanding customers' actual needs. – They would like to have multiple channels to access help or support and recognise that their mental health might impact their ability to pick up the phone and make a call. They would much prefer to use a chatbot or send an email to get in touch with us. – Choice is also key to customers feeling they are in control of how they seek out information or support.
Increase resilience and maintain high reliability	– With the increasing number of extreme weather events impacting the electricity network, the group felt it is essential for us to increase our resilience to withstand and recover from these events while also maintaining high reliability.
Digitise and automate the network	– The group wants us to invest in the network to adopt new technologies by digitising and automating the network to be prepared for future energy-related issues. It is important to customers that we stay at the forefront of technology and maximise the benefits of a smarter network.
Fair and equitable tariffs	– The group wants fair pricing and tariffs so that no one gets an unfair advantage based on who they are, their home situation or socio-economic status. They didn't want to see customers cross-subsidising solar customers due to costs associated with excess solar in the electricity network.
Continue the Uniting Energy Assist Program	– Customers supported Jemena's Uniting Energy Assist Program and would like this work to continue to support customers experiencing hardship or vulnerability. – It was noted (as with all groups) that we need to do more to promote the program and make it easily accessible on the Jemena website so customers who need help can access support.

Multicultural Customer Voice Group

The table below outlines the top priorities of multicultural customers based on discussions and feedback on a range of topics, trade-offs and dilemmas discussed with the group.

Priority	Why this is important
Affordability while maintaining reliability	– Overall, the Multicultural Customer Voice group told us affordability was a top priority while ensuring Jemena can maintain its service standard and not compromise the electricity supply to customers. – Reliable and fairer costs will prepare them for a sustainable future.
Accessible communication and information in multiple languages	– Multicultural customers want our communications to be tailored and accessible to cultural and language differences across all of our channels, websites, and media platforms. – They see great value in utilising new technologies that enable multicultural customers to have their say on energy and have two-way conversations with customer service teams in their own language. This builds greater participation and involvement of the full diversity of customers in our network.
Resilience and reliability	– Because of the recent extreme weather events in Jemena's network over the last three years (Maribyrnong flooding and the 13 February storm event), Multicultural customers see it is critical to increase our network resilience and be prepared for more frequent extreme events that impact the network.
Digitise and automate the network	– Multicultural customers want us to incorporate Artificial Intelligence and invest in new technologies to digitise and automate the electricity network as much as possible to prepare for future demand while upgrading outdated or old technologies. – Customers felt this would help us prepare to cope with challenges and make the investment at the right time so the network would be efficient for our future needs.
Utilise energy storage	– Multicultural customers believe utilising energy storage solutions will help reduce stress on the electricity network through excess solar and help increase the use of renewables across the network.
Continue the programs that support customers experiencing vulnerability (Uniting Energy Assist Program)	– The group supported Jemena's Uniting Energy Assist Program and would like this work to continue to support customers experiencing hardship or vulnerability. – It was noted (as with all groups) that we need to do more to promote the program and make it easily accessible on the Jemena website so customers who need the help are able to access support.



Seniors Customer Voice Group

The table below outlines the top priorities of senior customers based on discussions and feedback on a range of topics, trade-offs and dilemmas explored with the group.

Priority	Why this is important
Affordability	– Seniors want their electricity bills reduced as much as possible. They recognise that many seniors are on the Age Pension or have low incomes and are impacted by the increase in living costs. – Many senior customers had rooftop solar and were concerned about the increase in their bill due to future tariff changes with the impact of excess solar on the electricity network. This caused an even greater priority to ensure that costs remain as affordable as possible.
Fair and equitable tariffs	– Senior customers want us to have fair and equitable tariffs for our customers, especially customers who have made investments in rooftop solar. – They want to maintain reasonable solar rebates and help customers find alternative energy solutions such as batteries. – They noted that they didn't want solar customers to be penalised for exporting excess solar back into the electricity network and that customers with solar should be able to see the benefits of their investment through bill reductions as much as possible.
Digitise and automate the network	– Seniors want us to invest in the network to adopt new technologies by digitising and automating the network to be prepared for future energy-related issues.
Customer education campaign	– Senior customers want us to implement an education campaign that can help increase their understanding of the role of the Jemena, along with the electricity supply chain, how to access information about energy usage and energy saving tips.
Clear and accessible communications	– Senior customers would like us to prioritise clear and accessible communications and enhance the way we communicate and connect to customers. – They recognise that as we age, we need information in clearer and simpler formats and often find the easiest way to communicate with an organisation is to speak to them on the phone. – Seniors also wanted us to ensure that information was available in multiple languages and accessible to people with disabilities or mental health difficulties. They also noted that information needs to be available in easy formats for people who may have Alzheimer's or early-onset Alzheimer's.
Cyber security & data protection	– Cyber security and data protection is critical to seniors, especially the protection of sensitive customer data such as contact details (phone numbers and addresses).
Network reliability and resilience	– The group recognised the significant impact that power outages can have, both short and long term outages, on Seniors. The group want us to maintain high levels of reliability and strengthen our resilience so we can respond quickly to power outages and get customers back on the grid as quickly as possible.
Continue the programs that support customers experiencing vulnerability (Uniting Energy Assist Program)	– Seniors supported Jemena's Uniting Energy Assist Program and would like this work to continue to support customers experiencing hardship or vulnerability. – It was noted (as with all groups) that we need to do more to promote the program and make it easily available on the Jemena website so customers who need help can access support.

Young People Customer Voice Group

The table below outlines the top priorities of young people based on discussions and feedback on a range of topics, trade-offs and dilemmas explored with the group.

Priority	Why this is important
Affordability	– Young People have felt the impact of increases in the costs of living. Many young people are renting and don't have the ability to access renewable energy sources to reduce the cost of their bills. – The group also noted that many young people are studying or at the beginning of their careers, and their incomes are, on average, lower, leading to increased cost pressures impacted by energy bills.
Fair and equitable tariffs	– Young people want us to have fair and equitable tariffs for our customers and that customers who are exporting excess solar energy back into the electricity network, should have appropriate tariffs that reflect their needs versus customers without solar. This is important to young people so that customers without solar do not cross-subsidise those that have the benefits of solar.
Reliability, resilience and futureproofing the network	– Young people want us to focus on futureproofing the network and increasing our resilience to extreme weather events and future demand. – Young people are reliant on electricity and want to see our reliability maintained at high levels. – The group also told us as we head into the energy transition, we can't scale up renewables or focus on sustainability without upgrading the network to meet future demand.
Network growth to achieve cost savings for all customers	– Young people see the benefits of growth in our network (such as with network growth through data centres) and the benefits this creates for all customers in creating cost savings.
Renewables and a green energy focus	– The group want to ensure the electricity network is able to handle the shift to 'green' energy and we can help incentivise and drive EV, solar and battery use by customers.
Sustainability and corporate social responsibility	– If we can make customers aware of the impact Jemena's investments are having, customers believe it would drive further customer engagement and education, leading to an increased awareness of customer behaviours and their impact on the electricity network and the climate. – They would like Jemena to commit to continuously improving its environmental practices and reducing its impact on the environment.
Information, data and digital communication	– Young people greatly value data and information sharing and would like to see a transparent approach to data usage
Customer education, transparency and awareness	– Young people would like us to empower customers through increasing our education and awareness campaigns to help them make informed choices and decisions that lead to better outcomes. – They recognised that many customers are unaware of the energy supply chain and energy saving tips and were to seek more information and deserve to have the knowledge to take control of their energy consumption and bill.
Continue the programs that support customers experiencing vulnerability (Uniting Energy Assist Program)	– Young people supported Jemena's Uniting Energy Assist Program and would like this work to continue to support customers experiencing hardship or vulnerability. – It was noted (as will all groups) that we need to do more to promote the program and make it easily available on the Jemena website so customers who need the help are able to access support.

2.8.3 Large commercial and industrial customer priorities

The table below outlines their top priorities of large commercial and industrial customers.

Priority	Why this is important
Transparent, consistent tariffs and more information on tariff structures	– Providing more tools and information on tariffs can help large customers predict the impact of different investment decisions and improve budgeting and forecasting. – Clear and consistent tariffs and guidelines to easily explain tariff structures enables businesses to better understand and communicate their maximum demand, energy consumption and pricing signals. – Tariffs that have pricing signals that large customers can respond to (within their control) creates meaningful levers customers can pull.
More information and data sharing (in advance and real time)	– Proactively providing information and data on disruptions to power supply, load shedding events, impacts to power quality, planned outages and restoration times is critical to large customers and their operations. – Providing information in real time or in advance where possible, enables large customers to make informed decisions on services, operations or production supply, and the deployment of resources. It can also determine how large customers future-proof assets, make investment decisions, and respond to outages. – Sharing information through consultation processes before final decisions are made (e.g. before rolling out new technologies), helps large customers have a say in decision making and equips them for future planning and operations.
Support to enable business growth	– Providing greater clarity and certainty on cost schedules and future price signals (e.g. through master agreements or fixed costs arranged upfront). – Supporting customers to more cost-effectively retrofit assets to ensure they are fit-for purpose for the modern network. This might include Jemena sharing its expert knowledge of new generation technologies, to help customers persuade more cautious internal decision-makers. – Improving coordination of customers' large assets (e.g. data centres and renewable generation technologies) through a more streamlined interface between the customer and Jemena. – Making new connections quicker and less resource-intensive for customers, especially high capacity and generation connections. E.g. gather all required customer info up front.
Support to drive sustainability and decarbonisation, including information sharing, pricing signals and improved connections processes	– Making it easier for large customers to invest in renewable assets supports their sustainability goals. This might include tariffs that better incentivise sustainable investments, information on best locations for battery energy storage systems (BESS) and/or lobbying for customers to be able to build large-scale batteries without a certificate. – Exploring joint investment (e.g., through grants / EOIs) or improving the sharing/interfacing of regulated and non-regulated infrastructure, land, and assets helps large customers accelerate their sustainability and electrification needs. – Exploring opportunities for large customers to export all of their energy at certain times, will help support the network and customer operations. – Improving renewable generation connection processes can help large customers to connect CER quicker and more often.

2.8.4 Small and medium business customer priorities

Through our engagement with small and medium business customers in our network, we learnt about their top priorities for the future of the electricity network and why they are important.

Priority	Why this is important
Fair and affordable pricing and tariff structures	– Small businesses have growing concerns about the return on investment of solar and batteries, collectively known as CERs, the cost-effectiveness of electric vehicles, and the impact of energy prices on their operational expenditure. – Businesses highlighted the importance of reducing non-negotiable expenses such as electricity and gas. They stressed the need for cost-saving measures and better government support for renewable energy investments, particularly for sole business owners. – Reducing costs and having a clear understanding of the benefits of CER enables businesses to budget accordingly and forecast expected expenses to ensure the profitability of their business.
Network reliability	– The reliability of the electricity network emerged as a significant concern to reduce impacts on businesses and the services and goods they provide. – Businesses underscored the importance of having advance notice for planned outages and effective communication during unplanned outages so it can help minimise the impact on their business and they can plan and adapt their operations accordingly.
Network resilience	– The ability for Jemena to respond to extreme weather events and reduce longer-term outages can help businesses return quickly to operating and reduce the associated costs with closures.
Support for renewable energy transition	– There was strong interest in transitioning to renewable energy sources and the role Jemena could play in empowering businesses to achieve their sustainability and energy goals. – Businesses expressed a need for collaboration on balancing the electricity network using privately owned solar and battery setups.
Improved communication and outage notifications systems	– The impact of both planned and unplanned outages on business operations was a recurring theme. – Businesses appreciated the reduction in outages over the years but called for improved notification systems and contingency plans to mitigate the impacts of power disruptions on their business. – Improved communications and outage notifications can help alleviate the stress of unplanned outages and help business make informed decisions about their operations.
Ongoing customer engagement and feedback	– The sessions demonstrated the value of customer engagement, with businesses appreciating the opportunity to share their views and influence Jemena's regulatory proposals. There was a clear demand for continued dialogue and more engagement activities to ensure customer priorities are reflected in future plans.



2.8.5 Residential customer research

We surveyed 1,000 residential customers and asked them questions about what services they felt were important to them when thinking about the future of the network. We described the services provided and asked them to rate how important they were to them, with 0 – 4 being not at all Important and 9 -10 being Extremely Important.

The chart below indicates the level of importance they placed across these key priority areas.

Customers surveyed identified network reliability, defined as 'the ability of the electricity network to perform its function adequately for the period of time intended' as of high importance, along with network resilience, defined as 'the ability of the electricity network to withstand and recover from the effects of a natural disaster, such as floods, storms and bushfires and accessible and efficient communication.

Customers also felt that the digitisation and automation of the electricity network were important to the operation of the network and placed importance on having communications in multiple languages with a dedicated online customer portal.

When thinking about paying household bills, including electricity, 49 per cent of residential customers sometimes or often struggle to pay their bills, making affordability a key priority.

The results confirmed, as outlined in Figure 2.6 and Figure 2.7 below, the top priorities of our residential customers through our deliberative engagement processes with the People's Panel and Customer Voice Groups. This is reflected in the key initiatives we are implementing to prepare for a more sustainable energy future that meets customers' needs today.

Figure 2.6: Customer research – customer priorities rankings

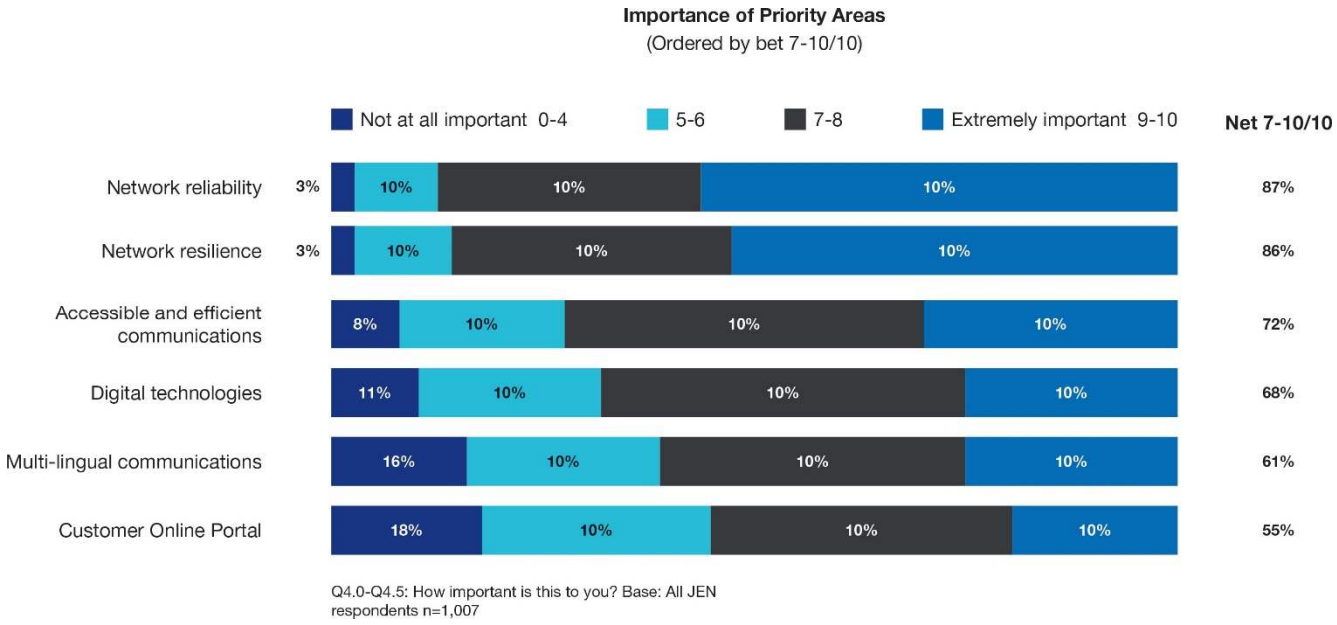


Figure 2.7: Customer research – customer priorities by demographic

% (7-10/10)	Total	18-34	35-49	50-64	65+	Hardship*	CALD^	Have solar	Use natural gas	Contacted Jemena (last year)
	n=1,007	n=304	n=336	n=208	n=159	n=99	n=85	n=361	n=925	n=116
Network reliability	87	79	90	90	95	83	85	87	87	89
Network resilience	86	81	88	85	92	77	81	87	86	88
Accessible and efficient communications	72	72	75	72	69	75	81	72	73	84
Digital technologies	68	66	70	71	66	66	77	70	68	73
Multi-lingual communications	61	59	63	60	63	66	73	66	62	73
Customer Online Portal	55	56	58	54	48	54	68	55	54	65

red/green Statistical differences (95%)

* Customers experiencing hardship, defined as those who state they "often struggle to pay their bills" A Culturally and Linguistically Diverse, defined as had immediate Asian or Middle Eastern ancestry, AND spoke Hindi. Mandarin. Punjabi. Vietnamese. Cantonese. Arabic or Sinhalese

2.8.6 Local council priorities

Through our engagement with local councils, we have identified their top priorities, as shown in the table below.

Priority	Why this is important
Innovative public lighting program and technologies	– Local councils want to develop innovative public lighting programs to improve and increase the public lighting options available. This includes replacing old inefficient public lights with LEDs in the next regulatory period. Working with councils to develop a 'smart light operating policy will help to manage the operation of the smart lighting system within the next regulatory period. – Implementing smart lighting and controls (i.e. shifting from a default-on approach to task-based lighting) improves local council electricity network management. – Include other light types (such as high-pressure sodium lamps) through an equitable, coordinated bulk replacement program. This approach flexibly allows for local councils to elect to lead the procurement of materials (estimated to be 25 per cent cheaper) and project management services in the relevant network areas. – Implementing 360-degree lighting that can embed solar panels, PA warning systems, CCTV (including with AI) and Electric Vehicle chargers will improve options local councils have to contribute to public safety and meet community needs.
Collaboration with local councils	– Local councils want support from Jemena to secure funding or available grants, including for smart/ remote control lighting, especially on bike paths. This enables local councils to trial new technologies and introduce initiatives that meet community needs and expectations.
Clear pricing and tariff structures	– Local councils would like to see consistent and clear pricing and tariff structures across our network that are cost reflective. They'd like to ensure we have the right pricing signals in place to better support our customers and communities and their growing concerns on the costs of electricity.
Network reliability and power quality	– Network reliability and power quality is a high priority to local councils to ensure stability of community services and critical infrastructure severely impacted by power outages.
Network resilience and supporting local councils before, during and after extreme weather events	– Local councils want support to identify risks and potential impacts to communities before, during and after extreme weather events. – Local councils benefit from customer and community education on what to do pre and post extreme weather events that impact power. – For example, by educating people on how to put plans in place for prolonged outages (e.g. preparing handheld power storage/ back up charging options), manage stress and panic during outages, access to emergency relief centres
Enhancing customer communication	– Local councils want us to provide effective easily accessible information to customers and communities and increase our accessibility, including improved Jemena website functionality. Simple English that is easily translatable and pictures and videos that are highly 'shareable' to help provide information in more accessible formats to diverse customers.
Increasing customer education	Local councils want us to increase our customers education to empower customers and create consistent messages, including: – improving the Jemena website with clear and transparent explanations of tariffs front and centre to help increase energy literacy – briefing local councils on educational material (e.g. via its staff rep on Local Emergency Management Committees) and directly or indirectly support community education via schools, libraries, seniors groups and other forums that councils can leverage – developing shared messaging with local councils about responsibilities, processes and timelines for repairing public lights.
Supporting customers experiencing vulnerability	– Local councils want us to work with them to support customers experiencing vulnerability, including to support programs and collaborate with frontline social service providers where possible. This is important to help the continuation of the Uniting Vic Energy Assist Program and help communities and customers get the support they need.

2.8.7 Retailer priorities

The priorities of retailers are captured below from our engagement with tariffs through the joint Victorian electricity distribution process, and through the Retailer Forum held in May 2023.

Priority	Why this is important
Providing more information and data (in advance and real time)	– Providing technical information and data (with customers' permission) helps retailers identify and support customers, including customers who experience vulnerability, and enhances their service delivery. – Providing up-to-date information (and ideally advanced notice) to retailers enhances service delivery to customers.
Customer education and building energy literacy	– Increasing customer education and energy literacy helps empower customers and their ability to take control of their energy usage, understand their bill and seek out support if needed. It is also important to help build an understanding of where customers can go to seek support, which enables customers to connect to the support they need.
Improving communications, including the Jemena website	– Improving the effectiveness of Jemena's website, including through customer testing, is important for increasing accessibility of communications to customers and their engagement in electricity services. – Providing easily understandable information as soon as possible (e.g. comparisons of tariffs, explaining how this applies to their own energy usage and lives, giving advanced notice of changes and tips for managing energy usage) helps customers make informed choices.
Tariffs that are consistent, cost reflective and simple to understand	– Tariffs that align with other Victorian distributors is valued by retailers as it provides a consistent approach to tariffs for all customers, reducing complexity and confusion in tariff implementation. – Retailers support an opt-in tariff for customers with batteries who would benefit from the export and import of solar. – Cost-reflective tariffs are an important part of supporting customers through the energy transition. Creating customer incentives/rewards are needed so that solar customers don't end up being subsidised by the rest of the electricity network.
Roadmap for future services adoption	– Providing a roadmap for future services to be adopted by customers will give retailers a clear understanding of the products and CER opportunities available to customers. – This also means it can be easier to identify opportunities to partner with retailers to support customers and CER opportunities.
Digitising the grid and using new technologies to enable new services and products	– Digitising the electricity network and using AI to help free up electricity network capacity and solve other challenges across the network. – Retailers want us to use technology to create a platform for new services and products for customers (e.g. virtual power plants, community batteries) to help meet customer expectations as growth in CER increases.
Supporting resilience and progress to net zero	– Retailers want us to increase our resilience as we face greater extreme weather events that impact the network to continue to provide a reliable and safe network to customers. This includes restoration times and the ability to recover quickly from power outages. – Retailers also want us to progress our net zero targets and lead by example in reducing emissions to meet customer and community expectations.
Continuing to deliver rich customer engagement	– Retailers would like us to continue to deliver rich customer engagement and share customer insights. This helps build energy literacy and customer confidence in energy services and builds deeper shared understanding of customer needs and preferences.

Responding to customer priorities

We are committed to reflecting the needs, preferences, recommendations and priorities of our customers in our Draft Plan. We have carefully considered our customer and stakeholder priorities for the future of our network, and have outlined how we are responding to each priority in the below table.

Customer Priority	How we are responding	Chapter
Affordable electricity prices (All customers)	All customers (residential, large, small and medium businesses) will receive an average two per cent reduction in distribution charges during the next regulatory period (excluding inflation). This will create stability in the electricity distribution costs that customers are charged. This proposed price reduction is enabled by an increase in load used by data centres, major connections and increased utilisation from existing customers due to electrification.	
Accessible and efficient communication from Jemena to customers (All customers and stakeholders)	Enhancing our accessibility and communication with customers is a vital step to increasing the positive experience customers have when engaging with us. We have dedicated expenditure to enhance the communication to all of our customers by: – Developing simple and accessible customer communications across all our channels and in multiple languages to support customer needs – Upgrading customer systems to allow for near real-time communications with customers using web chat and two-way SMS to meet their needs better – Collaborating with local councils, community groups, the Victorian Government, and emergency services to improve customer communications, particularly on policy development and during major outages and emergencies.	– Chapter 5 – Capital investment and – Chapter 6 – Operating expenditure
Champion renewable energy in new developments & housing estates (Large commercial and industrial customers)	We will champion the use of renewable energy generation by exploring: – Implementing batteries in Underground Residential Distribution Developments (BURDD). – Encouraging high voltage connected grid-scale energy solutions to large commercial and industrial customers and partners by enhancing our connection processes. We could also undertake research to identify the impacts on the electricity network through analysis to allocate hosting capacity for electricity exports more equitably – Supporting shared energy infrastructure solutions in greenfield sites, such as batteries, EV charging, and community generation – Working with developers on standards and requirements for ‘green estates’ that integrate energy storage with solar generation from the outset	– Chapter 3 – The energy transition
Collaboration to ensure efficiency (Large commercial and industrial customers, Local Councils and stakeholders)	Within our existing capability to ensure efficiency by: – Collaborating with our peer electricity distribution network service provider (nationally and internationally) on innovations and sharing learnings (for example, technical specifications and knowledge sharing on energy storage, tariffs, data sharing, digitisation and electrification) – Collaborating and information sharing with the Centre for New Energy Technologies (C4NET) to understand energy and customer data, research and insights. – Collaborating and sharing information with the Department of Energy Environment and Climate Action and the AER to investigate network efficiencies. – Collaborating and engaging with retailers to deliver beneficial outcomes to customers. – Use trials, partnerships and research as a means of wider collaboration and socialisation.	– Chapter 6– Operating expenditure

Corporate responsibility - addressing sustainability and carbon footprint
(All customers and stakeholders)
	As a part of our existing practices, we will build upon our existing work to ensure corporate responsibility and address sustainability by:
	– Implementing policies and practices that support a more sustainable business, including our:
	  – corporate-level net-zero commitment by 2050.
	  – carbon offset strategies, including pursuing re-vegetation initiatives.
	  – sustainability requirements as part of procurement policy and strategy
	– Implementing sustainable procurement strategies to ensure that materials we purchase to build the electricity network contribute to a circular economy
	– Aligning our operations to the Infrastructure Sustainability Council of Australia rating criteria.
	– Implementing a sustainability management system – for the entire asset lifecycle.
		– Chapter 5 – Capital investment

Customer Priority	How we are responding	Chapter
Customer education and building energy literacy *(All customers and stakeholders)*	To educate customers we need a dedicated awareness campaign, *and* a customer facing channel that helps empower customers to increase their knowledge and energy literacy in a way that suits them. We will use this expenditure to deliver customer education by: – Creating a new dedicated customer online portal that provides tailored information to customers based on their expressed preferences, language, and needs. The portal would also include AI to drive tailored information to empower customers to make decisions about sustainable energy usage. – Developing an integrated marketing campaign to generate awareness of energy-saving tips, the energy supply chain, rooftop solar, energy-efficient appliances, pricing and tariffs, and understanding electricity bills – We will enhance our existing customer channels and touchpoints, by integrating our customer applications and back-end customer knowledge management and providing customers with one seamless customer experience – Partner with local councils and community groups to build broader awareness of energy-saving tips, energy-efficient appliances and understanding of electricity bills.	– Chapter 5 – Capital investment Chapter 6 – Operating expenditure.
Customer engagement (ongoing) *(All customers and stakeholders)*	We will take the learnings and insights from the engagement process to evaluate our business-as-usual engagement with our electricity customers to identify: – ways we can continue to build our relationship with First Nations communities in our network area and across Victoria – new approaches to ongoing engagement with our customers, including ongoing engagement with diverse residential customers – ways we can continue our engagement with customers and stakeholders who participated in the engagement process.	– This work will take place in 2024 with the aim to start ongoing engagement groups by 2025.
Conservation and protection of land *(All customers and stakeholders)*	We will ensure the protection of land and mitigate the risks to the environment caused by the interaction of trees and power lines through: – continuing to develop and improve methods of environmental management and ongoing development of fire-safe distribution assets – implementing training standards to provide the 'best practice' management of vegetation – annually researching and compiling lists of trees deemed to be culturally or environmentally significant – annually researching and compiling listings of habitat trees containing fauna that is listed in the Threatened Invertebrate/Vertebrate Fauna List with a conservation status in Victoria of 'vulnerable', 'endangered' or 'critically endangered'.	– Captured in our **Electric Line Clearance Management Plan**, which is reviewed and updated each year. In 2026 a new five-year plan will be developed.
Cyber security and data protection *(All customers)*	We will increase our cyber security and strengthen data protection for our customers by integrating new digital capabilities **into the network and dynamic operations.** This will increase the data, analytics, systems, and cyber security capabilities required to meet our customers' needs, support the network and the integration of renewable energy.	– Chapter 5 – Capital investment – Chapter 6 – Operating expenditure
Digitisation and automation to increase economic efficiency *(All customers)*	We will implement digital technologies that enable devices across the electricity network to communicate and share data that might be useful for both customers and electricity network management. This includes smart meters, sensors, automation, and other digital network technologies, as well as advanced metering infrastructure and smart grid technologies, to reduce other costs in the electricity supply chain, including network investments, to realise financial savings in the long term. We will achieve this by Implementing a Future Network Strategy that includes: – **Analysis of near real-time Advanced Metering Infrastructure (AMI)** data, the metering and communications infrastructure we use to read meters remotely and obtain data for analysis. We use this data to help run the electricity network more efficiently and resolve problems more quickly. – **Dynamic network configuration** that performs hourly dynamic status changes of sectionalising and tie switches to reduce network line losses, minimise loss of load, or increase hosting capacity for distributed energy resources. – **Dynamic voltage management,** an advanced operating technology that automatically optimises voltages on the electricity network depending on conditions throughout the day. – **Flexible services,** a range of services (for example, load switching at critical times) that we can procure from customers and their representatives to avoid expensive electricity network upgrades. This allows us to run the network more efficiently. – **Grid stability market enablement,** a suite of digital systems that allow us to procure and trade flexible services. – **Network analytics program** – is a suite of sophisticated machine learning and artificial intelligence systems that allows us to analyse network data in new ways to identify opportunities to deliver better service and run the electricity network more efficiently. – Increasing data, visibility and analytics through a **Strategic Network Analytics Platform,** a platform for building and delivering network analytics applications to meet regulatory, compliance and operational requirements. We will also invest in technologies that enable better management through technological innovation, providing future generations with improved service levels at a reduced cost.	– Chapter 5 – Capital investment – Chapter 6 – Operating expenditure – Chapter 10 – Smart Metering.

Customer Priority	How we are responding	Chapter
Electric Vehicles and preparing for the future *(All customers and stakeholders)*	We will enable greater accessibility and optimisation of EV charging by: – Supporting industry partners in assessing and facilitating the implementation of an increased number of public EV chargers and enabling an operating model that minimises negative impacts on the electricity network and customer costs. – Facilitate and develop policies that promote the complex interactions of Vehicle-to-grid/home/business/load – Enabling EV charging units to be mounted on Jemena assets where allowable under the National Electricity Rules and safety regulations. – Trialling smart poles that are designed to deliver and combine intelligent technology such as lighting and telecommunication assets and EV charge points – Collaborating with councils to optimise EV charging solutions where possible. Solutions could include EV car spaces and location selection – Improving EV connection processes, including providing more information on localised network constraints (which can cause connection issues), the cost to connect (including network augmentation requirements) and timeframes to connect. – Increasing and expanding analytics and data on EVs, including location, loads, profile and forecasts over time. – Developing and communicating clear guidelines to EV charging customers in conjunction with industry partners.	– Chapter 3 – The energy transition
Empathy in customer service & tailored customer service *(Residential customers)*	– We will conduct qualitative research with customers (including the groups identified in our Customer Voice Groups) to further identify the experiences where greater empathy in service delivery is required. – We will review our work practices to identify ways we can enhance empathy in service delivery and tailor customer service (including responding to First Nations customers) to meet customer needs, utilising additional data from customer research.	– We will complete this work over the next two years and aim to conduct further research on empathy in customer service with customers from our Customer Voice Groups.
Energy storage by distributors *(All customers and stakeholders)*	Building upon our existing work, we will enable energy storage by exploring: – Researching and developing energy storage options and alternatives, including placing and sizing batteries in areas that need them most. – Collaborating with the Victorian Government and peer Victorian electricity distribution network service providers to share learning and develop common standards – Standardising battery connection arrangements using a 'plug-and-play' model to minimise costs and accelerate deployment – Utilising mobile battery storage to react to major events and provide network support where needed on a short-term or temporary basis – Advocating to regulators and governments to allow distribution network service providers to own and operate batteries – Partnering with large-scale grid-connected battery providers to provide backup storage.	– Chapter 5 – Capital investment and Chapter 6 – Operating expenditure.
First Nations cultural training *(Jemena, First Nations customers and communities)*	In alignment with our Innovate Reconciliation Action Plan (RAP), we will: – Conduct a review of the cultural learning needs within our organisation to ensure the cultural learning strategy scoped during Reflect is fit for purpose and up to date. Update the learning strategy as/if required. – Conduct a review of HR policies and procedures to identify existing anti-discrimination provisions, as well as future needs. – Research best practice and engage with the Indigenous Employee Network to explore the benefits of developing and implementing a standalone anti-discrimination policy for our organisation As part of the cultural learning strategy, including how to educate senior leaders, managers, and team members on the effects of racism Executive Leaders to meet with the Indigenous Employee Network at least once per year to build knowledge and understanding of matters that negatively impact the day-to-day experiences of First Nations employees within our business.	– Captured in our **Innovate RAP**, this work will commence in 2024 and will last for over two to three years.
First Nations employment and retention *(Jemena, First Nations customers and communities)*	In alignment with our Innovate RAP, we will: – Work with local Aboriginal and Torres Strait Islander communities to develop principles for communication in relation to employment and business opportunities, and Environmental, Social and Governance practices. – Build an understanding of current Aboriginal and Torres Strait Islander staffing to inform future employment and professional development opportunities. – Engage with Aboriginal and Torres Strait Islander staff to develop and implement an Aboriginal and Torres Strait Islander recruitment, retention and professional development strategy. – Review channels and partners used to advertise job vacancies to effectively reach Aboriginal and Torres Strait Islander stakeholders – Include in all job advertisements, 'Aboriginal and Torres Strait Islander peoples are encouraged to apply.' – Review HR and recruitment procedures and policies to remove barriers to Aboriginal and Torres Strait Islander participation in our workplace.	– Captured in our **Innovate RAP**, this work will commence in 2024 and will last for over two to three years.
First Nations procurement *(Jemena, First Nations customers and communities)*	In alignment with our Innovate RAP, we will: – Cocreate and implement an Aboriginal and Torres Strait Islander procurement strategy – Develop and communicate opportunities for procurement of goods and services from Aboriginal and Torres Strait Islander businesses to staff. – Review and update procurement practices to remove barriers to procuring goods and services from Aboriginal and Torres Strait Islander businesses	– Captured in our **Innovate RAP**, this work will commence in 2024 and will last for over two to three years.

Customer Priority	How we are responding	Chapter
First Nations artwork to be embedded in a meaningful way *(First Nations customers and communities)*	We will partner with Indigenous artists to commission artwork for our electricity network, including assets located across the network, such as community batteries, along with embedding artwork in our publications and materials for our electricity network where it is meaningful and respectful to the community and Country.	– We are commencing the embedding of Indigenous artwork in a meaningful way this year and see this work ongoing.
First Nations specific grants	We will review our Community Grants Application Process and criteria to explore how the process could be improved for First Nations community organisations.	– This will form work that will be completed in 2024 prior to the 2025 Community Grants Application process.
First Nations relationship building and ongoing engagement	To strengthen our relationships with First Nations customers and communities and in alignment with our Innovate RAP, we will: – Consult local communities and/or Aboriginal and Torres Strait Islander team members to inform our cultural learning strategy, implementation approach and communications. – Establish a First Nations Community Leaders Council for each state and territory we operate in and meet with each of them at least annually to build and/or maintain mutually beneficial partnerships and opportunities for First Nation peoples and communities. – Develop and implement a communication approach and engagement strategy to support connection and collaboration with Aboriginal and Torres Strait Islander communities, stakeholders and organisations. We will also consider how we engage with First Nations customers on an ongoing basis and extend the relationships we have built through the First Nations Customer Voice Group.	– Captured in our **Innovate RAP**, this work will commence in 2024 and will last for over two to three years.
Information and data sharing *(All customers)*	To increase our information and data sharing we will: – enable self-serve via an online portal and enabling customers to provide their contact details for outage notifications via the Jemena Customer Portal – provide electronic notifications faster than currently, and utilise the contact details provided via the Jemena Customer Portal – enhance our existing customer channels and touchpoints, by integrating our customer applications and back-end customer knowledge management and providing customers with one seamless customer experience – explore opportunities to provide identification and notification of the momentary power dips where feasible to large customers – explore the feasibility of obtaining real time power quality data and providing electronic notification either via the Customer Portal or emails.	– Chapter 5 – Capital investment – Chapter 6 – Operating expenditure – Chapter 10 – Smart Metering.
Incentivise battery take-up *(All customers)*	We will create incentives for customers to engage in batteries by exploring: – Streamlining current connections for customers with batteries to incentivise battery connections – Enabling bidirectional charging solutions to enable vehicles to act as batteries on the electricity network – Trialling a community battery tariff for residential customers – Trialling a tariff that supports and incentivises customers with solar and batteries to consume more, store during excess generation periods and export during peak demand periods – Supporting and collaborating with Virtual Power Plant (VPPs) operators.	– Chapter 5 – Capital investment

Maximise green energy
(All customers)
	We will use this expenditure to maximise green energy by:
	– Collaborating with industry partners on VPPs opportunities.
	– Developing and implementing policies, processes and practices that encourage and drive sustainable business, including:
	  – streamlining the connections process for consumer energy resource connections such as rooftop solar, EV and batteries
	  – Standardising connection of small-scale renewable generation to the electricity network
	  – Investing in research and development to learn how renewable generation and storage connect and interact with the electricity network.
	– Develop a campaign to deliver accessible information to customers via trusted sources and stakeholders such as retailers and local councils
	– Developing an education campaign to increase customers' knowledge and understanding of installing renewables, including the benefits and potential risks, so they are well-informed and empowered.
	– Developing an online renewables hub with key information for customers to encourage engagement and use of renewables.
		– Chapter 5 – Capital investment

Customer Priority	How we are responding	Chapter
Network reliability and power quality *(All customers)*	We will implement digital technologies that enable devices across the electricity network to communicate and share data that might be useful for both customers and electricity network management. This includes smart meters, sensors, automation, and other digital network technologies, as well as advanced metering infrastructure and smart grid technologies, to reduce other costs in the electricity supply chain, including network investments, to realise financial savings in the long term. We will achieve this by: – Implementing a Future Network Strategy that includes: – **Analysis of near real-time AMI data**, the metering and communications infrastructure we use to read meters remotely and obtain data for analysis. We use this data to help run the electricity network more efficiently and resolve problems more quickly. – **Dynamic Network Configuration** that performs hourly dynamic status changes of sectionalising and tie switches to reduce network line losses, minimise loss of load or increase hosting capacity for distributed energy resources. – **Dynamic Voltage Management** is an advanced operating technology that automatically optimises voltages on the electricity network depending on conditions throughout the day. – **Flexible services**, a range of services (for example, load switching at critical times) that we can procure from customers and their representatives as a means to avoid expensive electricity network upgrades. This allows us to run the network more efficiently. – **Grid Stability market enablement**, a suite of digital systems that allow us to procure and trade flexible services.	– Chapter 5 – Capital investment
Network Resilience *(All customers)*	We have increased expenditure in the network to prioritise increasing the resilience of the network by: – Replacing and upgrading assets that are more 'fragile' and pose a risk to the continued operation of the network. As our assets face an increase in extreme weather events and frequently face more stress, more fragile assets pose a greater risk to network resilience now more than ever. – Using technologies such as **Light Detection and Ranging (LiDAR),** a mapping and information tool that overlays different flood and wind zones, to manage the network better and more quickly. LiDAR can be overlaid against different flood and wind zones across the network to manage the network better and more quickly, and the Digital Twin technology helps understand situations in real-time. – Sharing data with stakeholders to support customers during extreme weather events (for example, mapping data on flood planes and wind flow) – Develop a comprehensive **resilience strategy.**	– Chapter 5 – Capital investment and Chapter 6 – Operating expenditure.
Ongoing service excellence to Jemena customers *(All customers*	We will deliver ongoing service excellence to customers by: – Developing a Customer Service Incentive Scheme to hold Jemena accountable for achieving service excellence and high-quality customer service – Benchmarking against peer businesses for transparency and objectivity, communicating and publishing the results for customers.	– Chapter 5 – Capital investment – Chapter 6 – Operating expenditure – Chapter 7 - Incentive Schemes
Public lighting – Innovative program with smarter technologies and collaborating with Local Councils on trials and grant *(Local Councils*	– We have a role to provide, construct and maintain emerging public lighting technology. However, our approach to public lighting is customer-driven, which means we work with local councils and VicRoads to ensure that we embrace technological developments that meet our customers' needs. – We are keen to explore the smart lighting opportunities (including trial funding) further with our customers through this consultation.	– Chapter 11 – Other services
Long-term sustainable operation of Jemena's network *(All customers and stakeholders)*	We will use expenditure to enable long-term sustainable operations of the network and its infrastructure by: – Electrifying our operational fleet and installing EV charging stations at Jemena sites, including depots. – Accelerating the replacement of SF6 gas with a more sustainable option (g3 or equivalent) – Encouraging renewables (policies, tariff structures) – Finalising the roll-out of energy-efficient public lighting, replacing mercury vapour and incandescent globes with LED – Driving renewable generation enablement activities – Trialling the deployment of solar and batteries to decarbonise operations (depots, offices, etc). – Maturing sustainable materials sourcing practices.	– Chapter 5 – Capital investment and Chapter 6 – Operating expenditure – Chapter 11 – Other services
Tariff communications to create clarity and consistency *(All customers and stakeholders)*	We are using existing expenditure (passing on no additional costs to customers) to explain and communicate tariffs and tariff structures to customers. We will implement and explain transparent tariff structures by: – Developing dedicated and tailored communications on network tariffs and bill impacts and making them accessible to customers, including providing an easy-to-read set of information on the Jemena website. – Removing network tariffs with components that can be confusing to customers (for example, the A10D – residential demand tariff), which has proven difficult for retailers to explain. – Aligning existing network tariffs as much as possible within Jemena and to other Victorian electricity distribution network service provider so that customers can be confident that their tariff structure is the same whenever they move around Victoria or choose to change their tariff.	– Chapter 9 – Network Tariffs

Customer Priority	How we are responding	Chapter
Tariffs that are cost-reflective and equitable *(All customers and stakeholders)*	We will ensure cost-reflective and equitable tariffs by: – Implementing a cost-reflective solar soak tariff, enabling customers connected to the network to benefit from rooftop solar generation, even if they don't own solar panels themselves – Implementing an optional (not mandatory) export tariff to encourage self-consumption of rooftop solar generation and promote battery uptake – Plan and work towards shifting customers off single-rate tariffs to the new solar soak tariff. – Continuing our advocacy work with the Victorian government and Australian Energy Regulator to highlight the need for cost-reflective tariffs and the benefits of our new solar soak time of use tariff. – Collaborate with the Victorian Government and peer Victorian electricity distribution businesses to gain agreement and support to implement these initiatives. – Engage with electricity retailers to co-design customer-facing tariffs to ensure the benefits in the network tariffs are passed through to customers.	– Chapter 9 – Network Tariffs



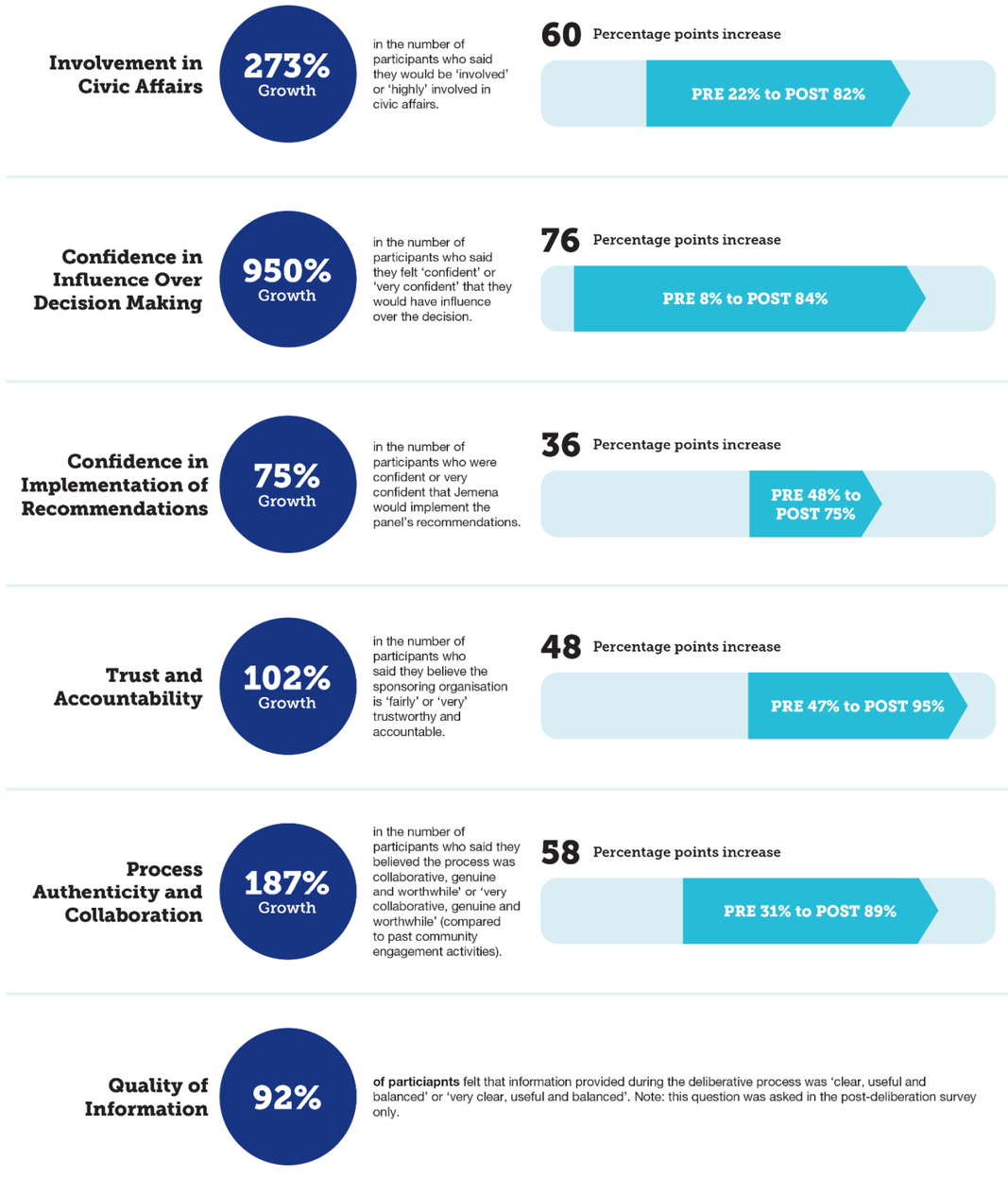


2.9 Evaluation

As a part of our continuous improvement objectives, to be successful throughout our engagement program, and to **measure the effectiveness of the engagement process,** we:

- built in a feedback loop at the end of each session to identify opportunities for improvement
- provided one-on-one meetings and follow-up with customers that needed more discussion, information or support
- had an independent evaluator (NewDemocracy Foundation) monitor and evaluate engagement against the International Deliberative Engagement Evaluation Framework and the AER's Better Resets Handbook. The table below outlines the regulatory requirements and how they will contribute to our engagement program.

AER Better Reset Handbook requirements	What's expected of us	How this contributed to shaping our customer engagement program
Nature of engagement (sincerity, partnership, equipping customers)	– **Sincerity of engagement**: understand and reflect customer preferences in the regulatory proposals. – **Consumers as partners**: collaborate and empower consumers when developing proposals. – **Equipping consumers**: provide accurate and unbiased information and transparent governance. – **Accountability**: delivering on commitments and improving relationships.	– Active listening and reporting back, showing what we've done with customer feedback. – Co-designing our engagement and proposal with stakeholders and customers – Creating authentic and genuine engagement opportunities – Keeping a focus on deliberate engagement that puts decision-making in the hands of customers where appropriate and partners with them to share our proposal – Information is provided genuinely, openly, and transparently, and education is used to help with decision-making. – High level of buy-in and attendance at engagement events.
Breadth and depth (outcomes and inputs, multiple channels, consumer influence)	– **Accessible, clear and transparent engagement**: set out engagement plans, overall objectives, and influence consumers can expect. – **Consultation on desired outcomes and then inputs**: consumers guide the development of proposals. – **Multiple channels of engagement**: use of varied channels aligned to customer preferences. – **Consumers' influence on the proposal**: 'collaborate' and where appropriate 'empower' customers (IAP2 spectrum)	– A high level of resources – Conversations with customers that may be 'strategically uncomfortable' for Jemena such as 'stranded assets' conversation and timelines for these. – See it more than just a 'five-year endeavour'. – Consultation is focused on long-term outcomes. – Channels are used to target different customers, and they decide how they participate.
Evidence of impact (preferences, independent support)	– **Proposals linked to consumer preferences**: There is a clear link between research, engagement, and representation and testing customer perspectives on the draft. – **Independent consumer support for the proposal:** demonstrated through submissions or independent reports.	– Clarity and alignment on what we collect evidence on – Taking the opportunity to engage early. – Chance to test and revert our assumptions. – Independent consumer review and report.



2.10 Ongoing customer engagement

The engagement we achieved through the price reset process and building on the strong base established in the last price reset, has continued to highlight the benefits and advantages of engaging with a diverse range of customers.

We have built new relationships with our diverse range of customers and strengthened existing relationships.

The engagement process has not only enriched us with insights into customer needs, but it has elevated our value of placing customers at the heart of our business.

We will take the learnings and insights from the engagement process to evaluate our business-as-usual engagement with our electricity customers to identify:

- ways we can continue to build our relationship with First Nations communities in our network area and across Victoria
- new approaches to ongoing engagement with our customers, including ongoing engagement with diverse residential customers
- ways we can continue our engagement with customers and stakeholders who participated in the engagement process.

Customer engagement

We want our engagement program to capture all of our customers and stakeholders views.

Have we captured all of our customers?



3. The Energy Transition



Highlights

- Our customers are acutely aware of the impact their energy choices have on the planet and future generations and the need to transition the energy system to address these issues.
- In line with government policy, more households and businesses are transitioning towards full electrification and are investing in Consumer Energy Resources.
- To support this change, Jemena's electricity network must adapt to meet customers' expectations and accommodate the increasing divergence between higher maximum demand and lower minimum demand, decentralised energy exports and customer energy storage.
- Increasing the physical capacity of the network is required to meet these changing expectations. Complementing these upgrades with investments in our digital capabilities will contribute to delivering an efficient outcome for customers and enabling access to renewable energy and new market products and services.

3.1 The current environment

Climate change, consumer choice, policy changes and the rapid development of technology have all accelerated the transformation of the Australian energy market. This means electricity distribution network service providers like ours constantly need to adapt and innovate when serving customers. Our customers have told us they expect Jemena to support the energy transition in an equitable, cost-effective and timely manner. How the market continues to evolve over the next two decades—including the cost of energy, developments in technology, customer needs and expectations, and the regulatory and policy responses—remains unclear, however, what is clear is that the energy system in the long term will be vastly different from that of today.

Through these changes, customers are being presented with more and more ways to take control of their own energy needs. They are increasingly shopping around for better retail offers and looking to new technologies like battery storage, electric vehicles and home energy management systems to manage their usage and lower their bills. Also, with the cost of solar photovoltaic electricity systems becoming cheaper, it is becoming more common for energy consumers to generate their own energy 'behind the meter'. This, in turn, has changed the way customers use the electricity network, and, in response, we must also evolve.

Ruchika Deora, Energy Reference Group member said, "The biggest challenge for Jemena I think facing the future, is actually becoming a technology agnostic enabler of what could look like multiple markets, multiple energy flows and we need to ensure that Jemena is really set up to enable those outcomes in the best interests of consumers."

Our customers are passionate about the energy transition and ensuring we are at the forefront of renewable technologies. Our customers told us that they want us to prepare for the energy transition across the network while empowering and supporting customers to take up and utilise more CER.

For the next regulatory period, we aim to continue providing reliable energy while developing a technology platform and deploying other digital initiatives that will encourage innovation and support customers' choices when making decisions about managing their own energy needs.



3.2 Future challenges

There are five global megatrends that are currently driving the energy transformation and which are likely to fundamentally change the structure and function of the electricity system over the next regulatory period and the long term. Throughout our customer engagement we discussed these megatrends with customers to help build their understanding of the challenges we face while seeking their advice on how we can prepare for the future.

The five global megatrends are:

Decentralisation
In the last decade, there has been a gradual decline in demand for electricity from centralised sources like power stations. Conversely, electricity generation from, and consumption of, electricity from CER[12] has increased.

Digitisation
It is impossible to escape the digital revolution. In the electricity system, digital technologies have enabled devices across the electricity network to communicate and share data that might be useful for both customers and the management of the network. Along with the state-wide smart-meter rollout in Victoria, other smart grid technologies used to digitise electricity distribution, such as sensors, automation, and artificial intelligence, create technologically integrated networks that better meet customer needs. Network operators who are late adopters are likely to be left behind, as they will have less knowledge of their customers, poorer management of their workforces and assets, and will be less prepared for future network changes.

Decarbonisation
Federal and state governments are implementing policies to decarbonise the economy, and many have accelerated their emissions reduction targets in recent years.[13] In May 2023, the Victorian Government set a new emissions reduction target of 75-80 per cent by 2035 and has brought forward its net zero target to 2045.[14] It has also set new renewable energy targets of 95 per cent by 2035. To achieve these targets during the transition, the Victorian Government is investing to deliver 4.5GWhs of renewable power (the equivalent replacement of capacity of Loy Yang A), reducing fossil fuel gas use, accelerating key transmission infrastructure, driving the development of offshore wind energy projects and continuing its solar homes and electric vehicle programs, among others.

In light of this and the expected retirement of the coal generation fleet between now and 2050, significant amounts of intermittent renewable generation—both large-scale and CER—will likely enter the electricity system in its place.

From a network perspective, the more variable renewable generation sources that enter the system, the greater the need for flexible, dispatchable capacity to maintain system reliability and security. It could also mean there is a greater need for interconnectedness—both physically and digitally—to balance and vary the generation mix.

Electrification
As generation shifts to more renewable sources, electrification is likely to be recognised for its environmental benefits by shifting end uses of electricity—including transport and heating—away from fossil-fuel sources. This shift is already happening in transport, where there has been a strong global increase in EVs since 2010:

- **Electric Vehicles** – EVs present an opportunity to increase the utilisation of the electricity distribution network and, if the additional electricity used in EV charging can be managed, abate the expected increase in peak demand. With vehicle-to-grid technology, EVs can act like a “battery on wheels” and become a valuable generating resource if coordinated properly.
- **Gas substitution** – The global energy sector is shifting away from the production and consumption of non-renewable fossil fuels and moving towards the use of low-carbon and renewable energy solutions. The Victorian Government has also introduced a gas substitution roadmap, which includes placing a ban on new reticulated gas network connections from 2024.[15]

These initiatives are some of the key changes that we expect to significantly change customers' interactions with and use of the electricity distribution network.

12 CER are small-scale energy resources owned by customers, which can produce, store or vary how they use energy. CER includes rooftop solar, batteries and electric vehicles and more traditional assets such as hot water heaters and pool pumps.

13 AEMO, 2024 Integrated System Plan for the National Electricity Market: A roadmap for the energy transition, June 2024, p. 31.

14 Victoria State Government, Victoria’s 2035 emissions reduction target, May 2023.

The rise of energy storage

Energy storage is made possible by the conversion of electricity into other forms of energy that can be stored. A growing form of energy storage is batteries. The cost of battery storage is rapidly declining and is likely to continue to decrease. The Australian Energy Market Commission (AEMC) also noted that warranted lifetimes for battery storage are increasing, the incentive to store low-cost solar energy and use this energy in peak periods is increasing, and that by 2025, battery installation may be economic for a number of households with solar PV installed.[16]

Given these developments and different rebates[17] offered by the federal and state governments to encourage uptake of rooftop solar, battery storage and EVs we expect Australia to see high uptakes of battery storage in coming years.

"I joined the sessions just to connect with other people in the community, to share my voice and hopefully be part of a more sustainable power grid in the future." Mental Health Customer Voice Group member

3.3 Future scenarios for our network

We assessed what our future network will be like in the context of the five global megatrends using the planning scenarios developed by the Australian Energy Market Operator (AEMO) under its draft 2023/24 Integrated System Plan.[18]

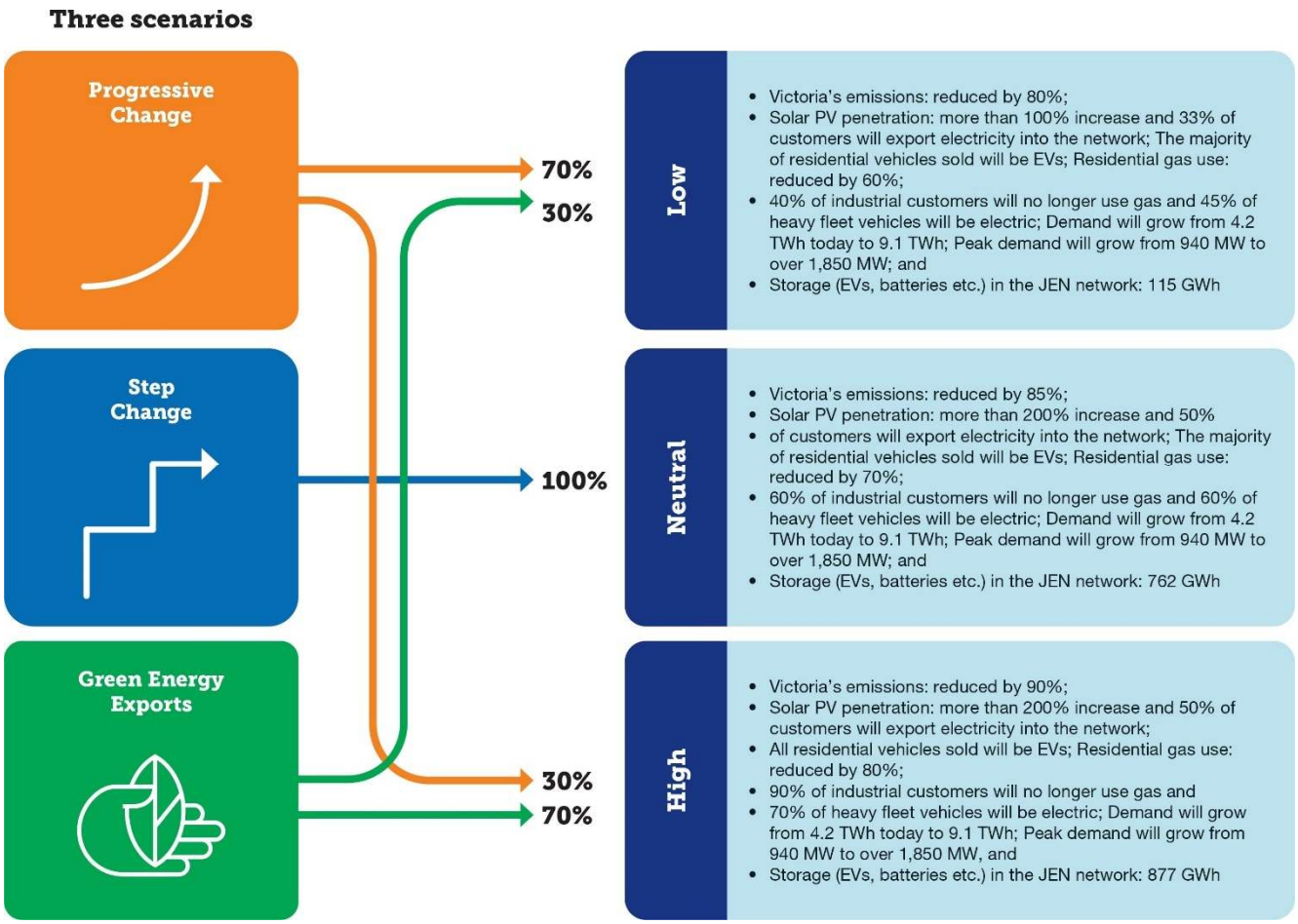
- Progressive change (lower growth scenario) – Australia will fulfil its emission reduction commitment of net zero emissions by 2050 in a growing economy
- Step change (moderate growth, fast change scenario) – achieves a higher level of energy transformation and energy investment
- Green energy exports (high scenario) – very strong industrial decarbonisation and low-emission energy exports.
- By applying AEMO's national planning scenarios and methodology to Jemena's unique network characteristics and operating environment, we prepared low, neutral and high forecasts that take into account.
- CER uptake
- electrification, energy consumption
- maximum and minimum demand

In Figure 3.1, we outline the approach we take to develop our forecast by blending these inputs.



16 AEMC, Turning point for incentives to invest in residential batteries.
17 Solar Quotes, Solar & battery rebates, subsidies & incentives – 2024, July 2024.
18 AEMO, Draft Integrated System Plan for the National Electricity Market: A roadmap for the energy transition, December 2023.

Figure 3.1: Jemena Electricity Network's future state scenarios – weighting of AEMO scenarios



The scenarios are distinguished by different assumed increases in electricity demand and consumption, distributed solar PV systems, plug-in EV usage, and substituting gas in favour of electricity appliances
.

relative to today. Some of the key drivers in our network's forecast are shown below in Figure 3.2 to Figure 3.4

Figure 3.2: Cumulative capacity of installed solar PV systems

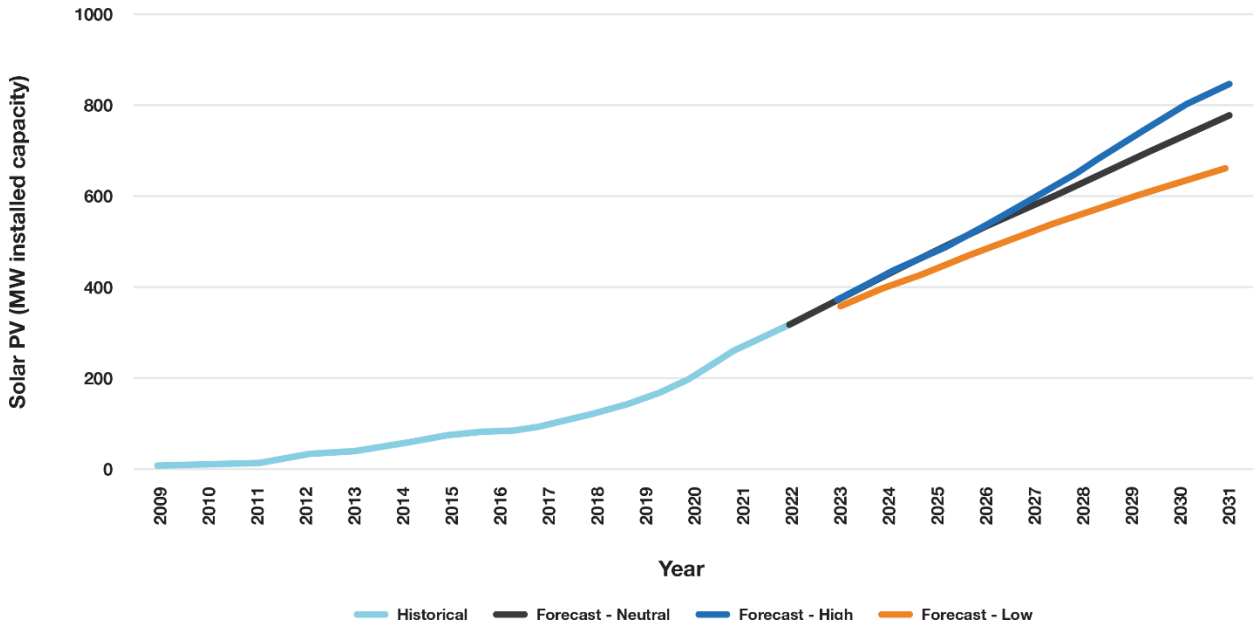


Figure 3.3: Forecast uptake of EVs

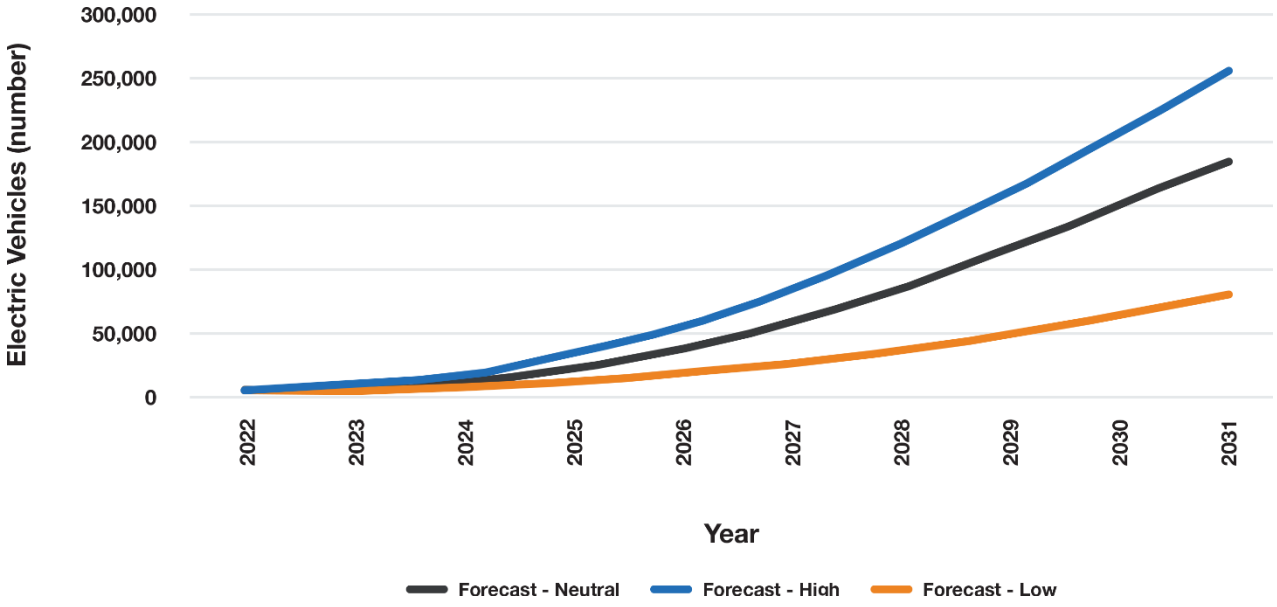
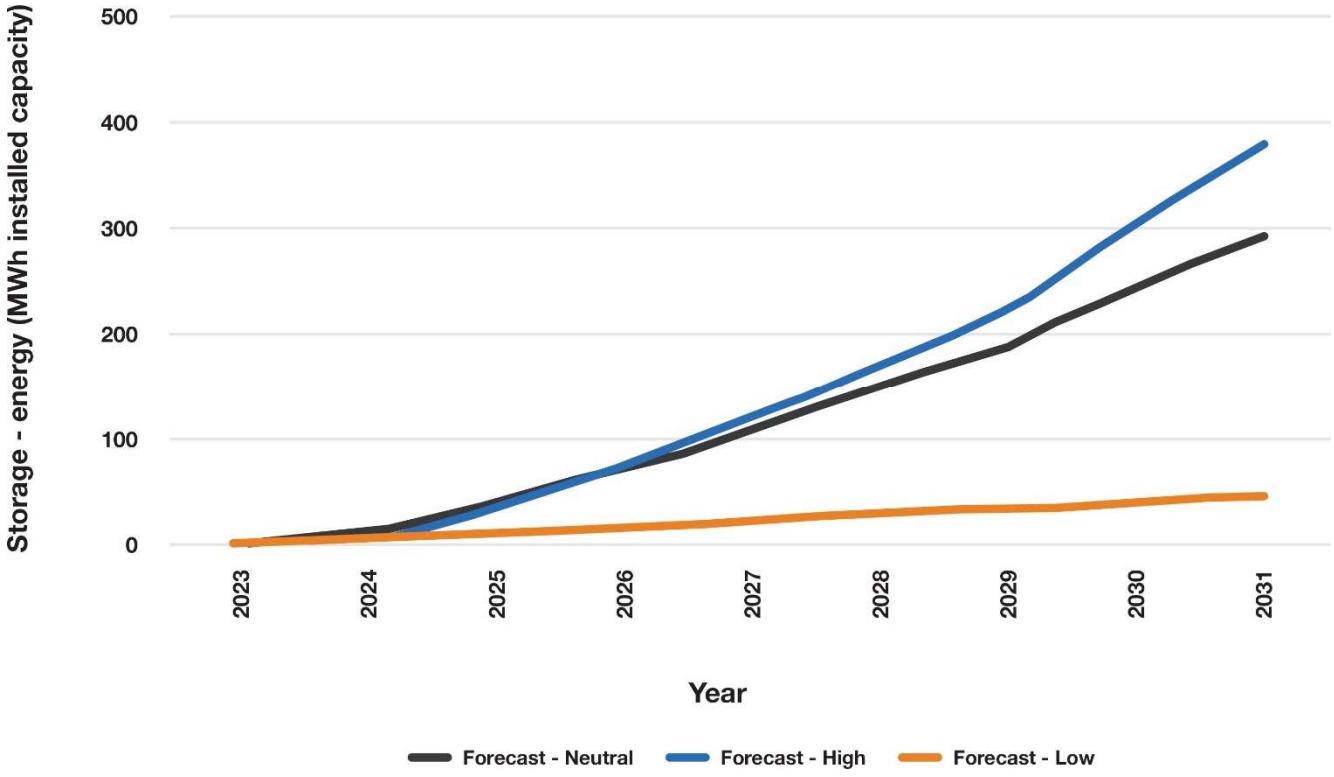


Figure 3.4: Forecast uptake of battery storage systems (MWh installed capacity)



The Victorian Government's policy to prevent the growth of reticulated gas networks means customers' energy needs will be increasingly supplied by the electricity network. This policy has significant implications for our electricity forecast because Victorian customers—particularly residential customers—have energy-intensive heating needs during winter, and these will need to be met by the electricity system in the future.

We have considered this change and developed a range of scenarios for what the substitution between gas and electricity energy sources could look like. Table 3.1 below outlines the scenarios we have considered when forecasting the impacts on the electricity distribution network in the future.

Table 3.1: Electrification of gas uptake by customer type, expressed as a percentage of Jemena's total customers

Scenarios	Electrification Residential & Commercial	Electrification Industrial
Low	30% of customers electrified in 2035 (9% brownfield, 21% greenfield)	NA
Neutral	45% of customers electrified in 2035 (24% brownfield, 21% greenfield)	15% of energy electrified in 2035
High	60% of customers electrified in 2035 (38% brownfield, 21% greenfield)	25% of energy electrified in 2035

When we look at the current government policies and megatrends, our analysis shows that—under every scenario—our electricity network will be significantly different by 2035. The status of our network by 2035 under the neutral scenario is set out below.



3.4 We need a smart and stable network

As our society progresses towards a decentralised and decarbonised future, the electricity system will change and as it transforms, so too will our role as an electricity distribution network service provider. With a growing proportion of generation originating from customers and flowing into the network, and with a multitude of customer devices seeking to connect to and interact with the electricity system, we will have to become a sophisticated distribution system operator to intelligently and efficiently distribute electricity to the place it is needed the most. The transition to this new role will be heavily influenced by customers, governments and regulators, as well as other changes in the external electricity market.

To prepare for this change, we need to pre-empt the transformation to mitigate against the potential negative impacts of disruption and embrace the opportunities that it presents on behalf of our customers. We see that digitisation and increased dependence on data and communications will be necessary, and our interactions with markets and customers will be greater. This trend is beginning to emerge through the significant reforms being considered by regulatory bodies such as the AEMC and AEMO.

The term "smart network/smart grid" was coined in the early 2000's to describe the overlay of an Information & Communications Technology architecture on the physical electricity network infrastructure to improve real-time situation awareness and control as well as collating data for improved asset management planning and customer awareness. As Australia and the rest of the world move towards net zero, "smart networks" enabled by digitisation will play an increasingly important role in preparation for a more responsive and sustainable energy future.

"Ensuring the grid can handle and encourage the shift to renewable energy sources, including electric vehicles, solar power, and batteries. Emphasising the inevitability of this change and the need for infrastructure adaptation." Young People Customer Voice Group member

3.4.1 Our future network strategy and roadmap

Our overall mission is to connect our customers to a renewable energy future. While we support individual customer choices, we need to consider those choices to make investment decisions that support the efficiency of the overall electricity system for the benefit of all our customers.

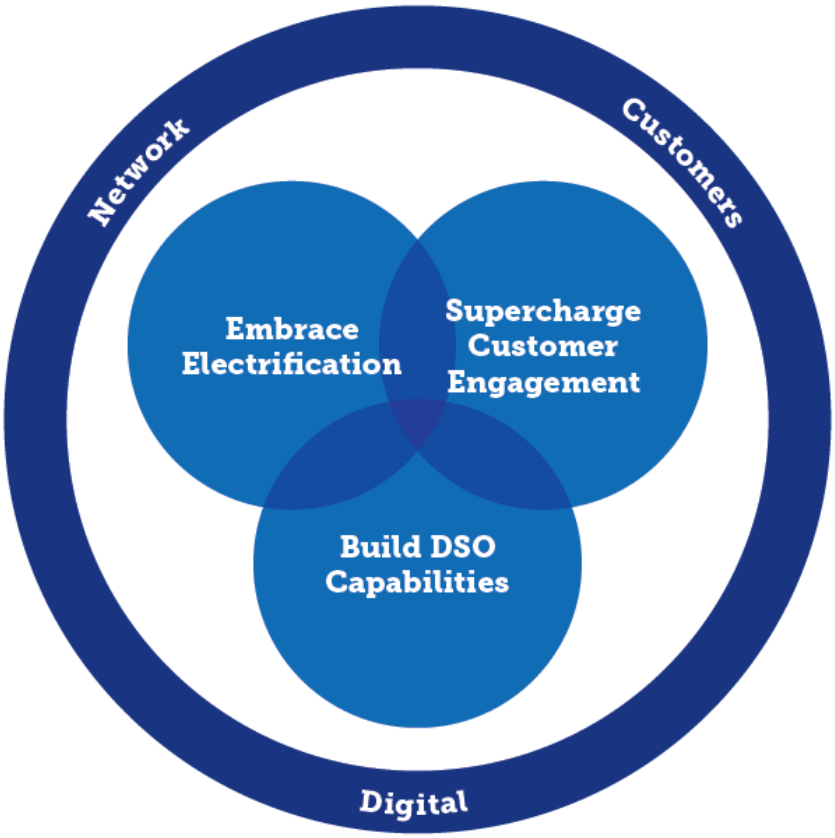
There are three key themes for programs of work that must be prioritised to deliver a network of the future to meet the evolving needs of customers and to support Victoria in achieving net zero by 2045. These themes are:

- **Embrace electrification** – Adapt the electricity distribution network to accommodate the additional demands expected from the electrification of the gas and transport sectors and for the evolving needs of our new and existing electricity customers.
- **Supercharge customer engagement** – Continue to engage our customers to understand their needs and expectations as the energy transition progresses, ensuring we are better able to plan for the future. Our customers' needs are central to this change journey.
- **Build future capabilities** – Continue to adopt digital systems and enhanced distribution services that support the energy transition to enable and facilitate competition and new services for energy market participants using enhanced applications, processes, automation, data and analytics, including functions that support AEMO in its role as a system operator to maintain power system security.

Optimising these themes is necessary to ensure efficient distribution of electricity to our customers.

Figure 3.5 illustrates how these key themes link to customers, the physical electricity distribution network, and digital technology overlays to facilitate a smooth energy transformation at an efficient cost.

Figure 3.5: Our future network strategy themes



Adopting programs of work during the energy transformation that support these key themes will allow us to achieve the following outcomes for customers:

- maintain distribution network reliability, quality of supply, and resilience
- support power system security, stability and optimisation
- provide equitable and cost-effective distribution network access and CER enablement
- provide and utilise network capacity in an efficient, economic, coordinated and timely manner
- enable and facilitate competition and new services for energy market participants; and
- meet our regulatory obligations.

Our future network strategies

While the energy system evolves towards the goal of net zero by 2045, the time for network reform and investment is coming upon us more quickly than expected. Already, the rapid adoption of CER is putting electricity networks under increased pressure, meaning we need to curtail network exports to maintain the integrity of the electricity system. An increasing number of measures will be required as this pressure increases. We cannot wait until 2030 or 2040 to address these challenges; the timelines of project initiatives will need to be brought forward, and new capabilities and systems may need to be added in the next regulatory period. Our Future Network Strategy will build and strengthen capabilities outlined in the roadmaps of each of our five subsidiary future network strategies, as shown in Table 3.2.

Our Future Network Strategy is based on a scenario-based investment approach to managing the uncertainty and risks associated with the transformation, it is our overarching strategy for our asset management strategies, setting the basis for the strategic direction from which our asset management strategies are informed and developed. This strategy also informs the subsidiary strategies that are directly targeted at supporting the energy transformation (Figure 3.6 and Table 3.2).

"We expect that there will need to be a trade-off between investment in sustainable technologies and the cost impact that customers may incur." Energy Reference Group member

Figure 3.6: Our future network strategy

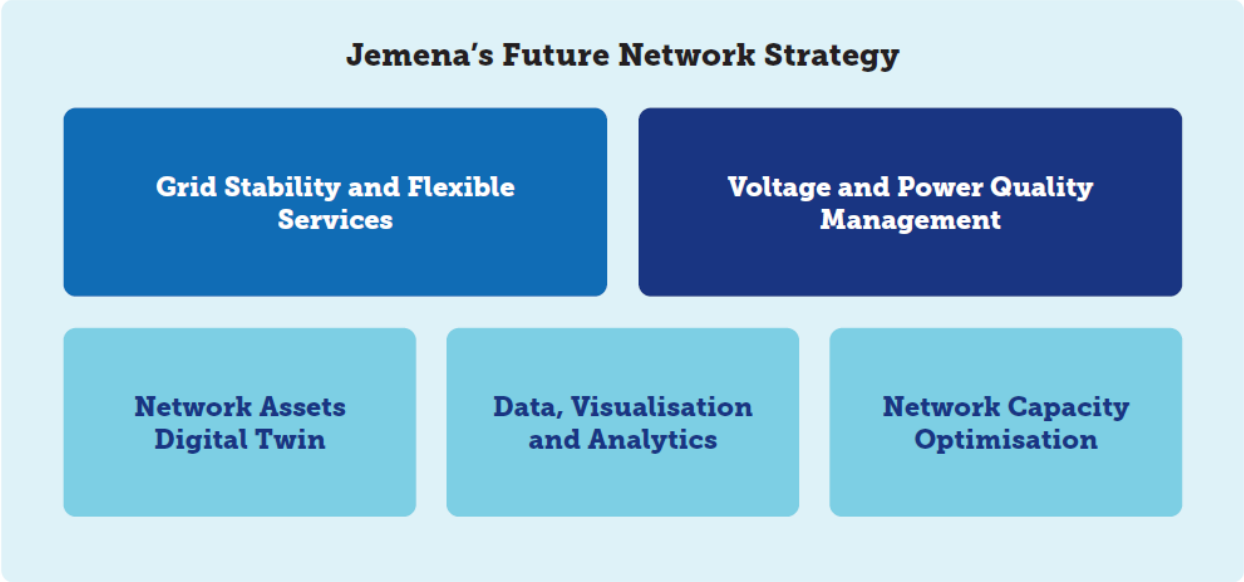


Table 3.2: Brief description of our future network strategies

Strategy	Description
Network Stability and Flexible Services	An initiative to develop a Distributed Solar PV Backstop Capability and a Distributed Under-Frequency Load Shedding (Distributed UFLS) Scheme as two distinct network stability applications to respond to the challenges and opportunities associated with increasing numbers of CER and their associated influences on power system security and network operating limits. The applications developed are supported by a new and staged Distributed Energy Resource Management System (LV-DERMS) platform to achieve optimised control of CER which will help keep the network stable and deliver flexible export and import distribution services.
Voltage and Power Quality Management	An initiative that addresses the need for a voltage and power quality management program to respond to the challenges and opportunities caused by increasing CER penetration and non-synchronous generation.
Network Assets Digital Twin	An initiative that increases digitalisation and virtualisation of electricity distribution network assets and asset management functions, including using light detection and ranging (LiDAR) point cloud, 3D design tools, mechanical digital twin, network assets image capture and analytics for more efficient operation and management of the network.
Data, Visualisation and Analytics	Using analytic platforms, data and modelling tools to simulate new and moved connections, accelerate connection approvals, obtain near real-time power quality data for field crews (including predictive analytics) and near real-time AMI data for analysis, enable field workers to verify GIS data more quickly and address regulatory data collection obligations.
Network Capacity Optimisation Plan	An initiative to enable more dynamic optimisation of the high-voltage network, including dynamic feeder reconfiguration under system normal conditions to optimise reliability and network load balancing.

The programs of work identified from this strategy set out investment roadmaps, providing a prudent optimum balance between risk, expenditure and uncertainty to meet the identified needs of the energy transformation, delivering several key benefits, including:

- **CER enablement** – improve export capability and reduce CER curtailment calculated using the AER's Customer Export Curtailment Valuation (**CECV**)[19] methodology.
- **Reliability of supply** – maintain the reliability of supply by managing and adapting to the changes in electricity demand from CER uptake and usage of the network, the electrification of transport and gas substitution, and new and existing customers' requirements for electricity using the AER's Values of Customer Reliability (**VCR**)[20] methodology.
- **Regulatory compliance** – maintain voltages within regulatory limits and satisfy system security and power quality regulatory requirements in an environment where the energy transformation is causing regulatory and operational requirements to be stretched.
- **System security** – maintain system security by having a more visible and controllable CER to ensure supply-demand balance.

3.4.2 Our customers support digitisation and championing renewables

As outlined in the Customer recommendations and priorities (Chapter 2), our customers want an electricity network that uses innovative technologies to create efficiencies and maintain high reliability. Across all our customer groups and stakeholders, most notably residential customers, customers want the benefits achieved through digitisation and automation technologies. They want an electricity network that includes advanced metering infrastructure and smart network technologies, which can reduce other costs in the electricity supply chain and realise financial savings in the long term.

> *We are considering changing our fleet to electric vehicles, factoring in the current cost of fuel vs lower cost of running EVs, charging during the day etc. Unsure of whether to make the investment if running costs increase in future. [Small business customer]*

Customers expect us to achieve greater efficiencies through digitisation and automation, increasing economic efficiency through adopting digital technologies and automated processes. Customers also want us to realise the benefits of AI technology, communication, and data sharing across the network, which can improve reliability and respond quickly to disruptions and outages.

Our customers see benefits in the long-term savings that are achieved through less maintenance of assets and less operational manual inputs achieved through digitisation and automation.

Our customers also want us to play a leading role in championing renewables across the network and help incentivise and drive battery take-up as much as possible. Customers see batteries as one of the leading solutions to help redistribute the increasing amount of excess solar generated by more and more households. Customers also see batteries as a means to reduce network stress and create positive outcomes for all customers.

Questions for your consideration

- What do you think about our future network strategy?
- Are there other considerations we need to account for in our future network strategy?

19 AER, Final customer export curtailment value methodology, June 2022.

20 AER, Values of customer reliability methodology – final decision, December 2019.

4. Our services



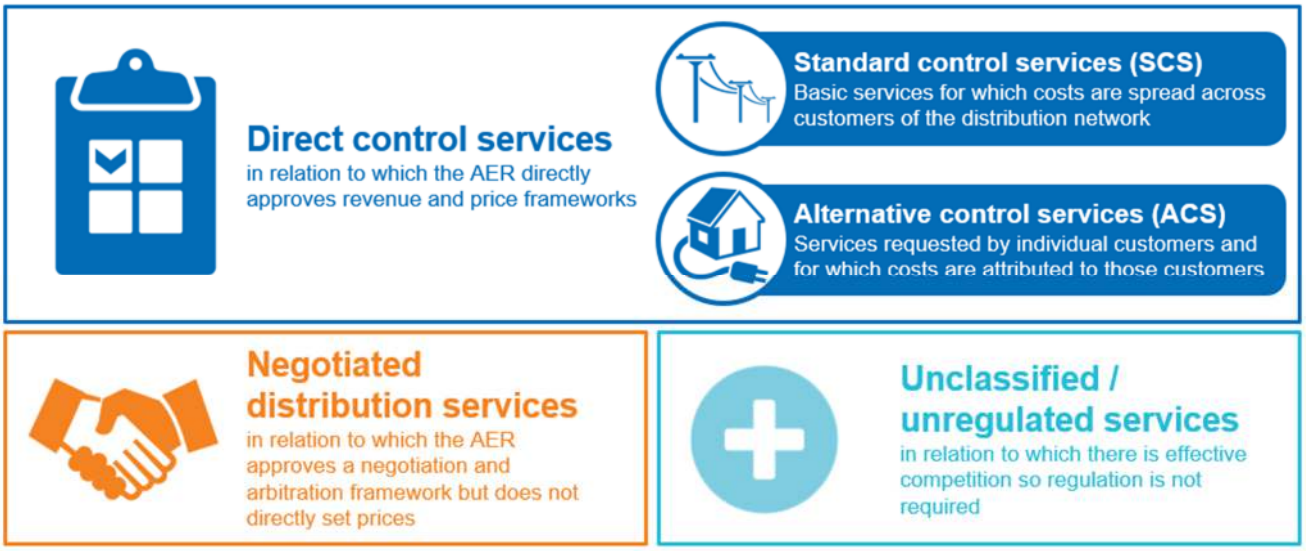
Highlights

- The classification of our current distribution services will continue to apply over the next regulatory period.
- We proposed to the AER, and it has accepted, that the following distribution services be introduced and classified as direct control and standard control services:
  - Customer export services
  - Mandatory essential system services
  - Network data sharing and advisory services
  - Standalone power system services
- These new services relate to the energy transition and align with our customer's expectations.
- Our proposal means that all customers across the network will share the costs of providing these services because of the shared benefits they would receive from these services.

4.1 Overview

We provide different types of electricity distribution services. The classification of distribution services defines the type of economic regulation that the AER will apply to the services we provide. The National Electricity Rules set out how the AER is to classify distribution services as shown in Figure 4.1.

Figure 4.1: Distribution service classifications





There are three main classifications of distribution services:

- **Direct control services**. This represents the majority of our electricity distribution services. They are further classified into standard control services and alternative control services. Standard control services relate to the services for which costs are spread across all customers connected to the network. In contrast, alternative control services are those services requested by individual customers and for which costs are attributed to those customers. In 2023, 76 per cent of our total revenue (excluding capital contributions) came from direct control services.[21]
- Whether a distribution service is to be categorised as a standard control service or an alternative control service depends on the AER's consideration of several factors. These factors include whether there is potential for competition in the relevant market; the extent to which costs of providing the service are directly attributable to the person receiving the service; consistency in regulator's approach within Victoria and among Australian states and territories; and the impacts on administrative costs, among others.
- **Negotiated distribution services**. The AER does not directly set prices for these services, but it approves the negotiation and arbitration framework that applies to these services. The AER is also involved with resolving disputes. At this stage, we do not provide any negotiated distribution services.
- **Unclassified/unregulated services**. The AER does not regulate these services because there is a working competitive market.

Appendix A lists all our current services including the newly classified distribution services approved by the AER.

4.2 We propose only minor changes to classification of our current services

Following engagement with our customers and considerations of the currently known emerging market opportunities, we propose several minor changes to the existing classification of our current distribution services, network ancillary services, metering services and connection services. We believe that our current services remain appropriate for the next regulatory period and meet the needs of our customers. The AER, in its preliminary Framework and Approach papers for the Victorian electricity distribution network service providers considered that:

> *Where no amendments to the common distribution service grouping have been requested by distributors and the services remain consistent with the 2022 Guideline and our most recent service classification positions for other distributors, subject to submissions, we remain satisfied for the reasons set out in those decisions that these remain appropriate.*[22]



However, we are proposing to classify some newly identified services for the next regulatory period. These proposals are generally in response to our customers' requirements and expectations, new regulatory obligations or to provide a more equitable cost allocation among our customers who receive services. We outline this in the next section below.

21 The remaining twenty per cent of our total revenue (excluding capital contributions) are pass through revenue related to transmission use of system charges and the other one per cent comes from unregulated services.

22 AER, Preliminary position paper: Framework and Approach Papers for AusNet Services, CitiPower, Jemena, Powercor and United Energy 2026-31, March 2024, p. 5.

4.3 We propose to newly classify some services

The AER's Electricity Distribution Service Classification guideline provides a baseline set of distribution services, groupings of services and its approach to classifying distribution services.[23,24] Below, we outline the new services we propose in the next regulatory period.

4.3.1 Customer export services

Our network is increasingly being used by customers to export the excess electricity generated by their Consumer Energy Resources to the electricity network for other customers to use. The recognition of export services as a distribution service in the National Electricity Rules will enable us to plan and invest in the network more effectively to support growing customer expectations for CER uptake and electricity exports in the future, helping to unlock the full potential of CER. [25]

Export services involve the use of the shared distribution network to export electricity, hence our view is that these services should be regulated as direct control services and provided for in our standard control service-regulated revenue allowance. This means that the cost of providing these services would be shared across customers in our network, acknowledging the shared benefit that this provides to Jemena's customers.

> The AER, in its final Framework and Approach for Victorian electricity distribution network service providers has accepted our proposal to classify customer export services as direct control and standard control services.[26]

4.3.2 Essential System Services

Essential system services (ESS) are necessary services provided to the National Electricity Market (NEM)[27] to help keep the electricity network safe, reliable, and secure. Some forms of ESS are provided by NEM participants, including utility-scale batteries, large energy users, and some forms of generation. The Australian Energy Market Operator (AEMO) passes through the costs of these services to NEM participants and electricity customers.

We are permitted to provide the following mandatory ESS when directed by the AEMO:

- interruption or curtailment of distributed/customer energy resources connected to the distribution system to maintain system stability and security where there is critically low demand
- interruption or disconnection of supply at premises to manage under-frequency load risks using our smart control technology.

We have the capacity, capabilities and expertise to deliver the above ESS. We also have the ability to provide non-mandatory ESS such as Reliability and Emergency Reserve Trade services, frequency control ancillary services, inertia and other system security services. However, under the current Framework & Approach, these non-mandatory ESS have not been classified as direct control services and standard control services.

To promote more efficient outcomes for the long-term interests of customers, we proposed to the AER that it classify our proposed mandatory and non-mandatory ESS as direct control services and standard control services.[28] Given our existing capabilities and range of existing assets, we believe that we could provide ESS at scale and therefore at a relatively low cost. These benefits would flow through to customers through reduced costs of ESS provision.

> The AER, in its final Framework and Approach for Victorian electricity distribution network service providers, has accepted our proposal to classify mandatory ESS as direct control and standard control services. The AER did not accept our proposal in relation to non-mandatory services and considers that the current arrangements for non-mandatory ESS should remain.[29]

23 AER, Electricity distribution service classification guideline, 1 August 2022.
24 The AER determines our prices every five years. The first step in the price determination process is to publish Framework and Approach (F&A) papers. The F&A sets out the AER's approach to key elements of the upcoming determinations and facilitates early consultation on these before businesses prepare and submit their pricing proposals. The current F&A for Victorian electricity distribution network service providers was developed in 2019.
25 AEMC, Access, pricing and incentive arrangements for distributed energy resources, Rule determination, 12 August 2021.
26 AER, Final Framework and Approach Papers for AusNet Services, CitiPower, Jemena, Powercor and United Energy 2026-31, July 2024, p. 4.
27 The wholesale electricity market for eastern Australian states and territories.
28 JEN, Submission for replacement Framework and Approach paper: 2026-31 regulatory control period, October 2023, pp. 19-21.
29 AER, Final Framework and Approach Papers for AusNet Services, CitiPower, Jemena, Powercor and United Energy 2026-31, July 2024, pp. 5-6.

4.3.3 Network data sharing and advisory services

Electricity distribution network service providers gather and analyse data from network assets such as smart meters, monitoring devices and other systems to safely, efficiently and reliably operate our networks. Our data is also useful for various stakeholders to support their needs throughout the energy transition – including customers, NEM participants, investors, developers, governments, community groups and researchers. These stakeholders raise data requests with us and other distribution network service providers, such as the examples shown in Figure 4.2.

Figure 4.2: Examples of data requests (non-exhaustive)



We manage a wide variety and significant volume of data requests on an individual, ad-hoc basis. Data requests range in size and complexity and sometimes require dedicated staff to manage. In some cases, customers and other stakeholders requesting data are unsure of the data they require and how to interpret it. The lack of a framework means that there may be inconsistent outcomes, inequitable cost allocations, and consequential impacts on the progress of the energy transition.

We proposed to the AER that it classify the following two services on data provision:

- provision of standardised network data should be classified as direct control and standard control services. This would include data provision services, for example, through a network visibility map or portal that provides public access.
- provision of network data and advice, including data analysis and interpretation, outside the scope of the classified standard control service should be classified as alternative control services. Costs of these bespoke services would be recovered from the stakeholder requesting the data, rather than shared among our customers providing a more equitable outcome.[30]

> The AER, in its final Framework and Approach for Victorian electricity distribution network service providers, has accepted our proposal to classify provision of data services as we have outlined above.[31]

30 JEN, Submission for replacement Framework and Approach paper: 2026-31 regulatory control period, October 2023, pp. 22-23

31 AER, Final Framework and Approach Papers for AusNet Services, CitiPower, Jemena, Powercor and United Energy 2026-31, July 2024, pp. 6-7.

4.3.4 Standalone power system services

Standalone power system services (SAPS) are technology solutions used to provide electricity supply to customers in circumstances where supply via the electricity distribution network is not appropriate—for example, in remote communities out of reach of existing power lines and in communities that have lost access to the electricity distribution network due to line breaks from bushfires or other natural disasters. SAPS are made up of several apparatus, including solar panels, batteries and backup generators, and also include individual power systems and microgrids and operate independently of the electricity network.

Recent reforms to national energy laws and rules enable us and other electricity distribution network service providers to provide SAPS services to supply electricity to customers who are not connected to the national electricity system. We may provide SAPS services to existing customers and offer to connect new customers to existing regulated SAPS where this is more efficient than connecting them to the electricity distribution network. Under the rule changes, an electricity distribution network service provider's SAPS services are required to be classified as a standard control service so that the costs of providing the services are recovered from across the customer base.[32]

We proposed to the AER to give effect to this change by treating our provision of SAPS services as an activity under the 'common distribution service' grouping.[33]

> The AER, in its final Framework and Approach for Victorian electricity distribution network service providers, has accepted our proposal to classify SAPS.[34]

4.3.5 Connection services

The Victorian Government's Emergency Backstop Mechanism requires us to ensure that newly connected and replaced solar photovoltaic installations can be remotely curtailed in an emergency if there are critical minimum demand risks. This is a mandatory obligation for the Victorian electricity distribution network service providers.[35]

To ensure relevant solar photovoltaic installations are backstop-capable, we will need to undertake a range of activities, including:

- installation of infrastructure to enable backstop capability, for example, inverter technology capable of remote communication with our systems through the internet or other means
- inspection of solar photovoltaic installations at customer sites to check capability and readiness for remote curtailment in case of an emergency
- other activities such as tests and notifications to customers of interruptions or curtailment.

We proposed that the AER consider whether changes to service classifications are necessary to reflect activities we undertake in relation to the mechanism.[36]

We also proposed minor clarifications for the other/enhanced connection services we provide to reflect the potential dynamic network capacity management services outlined above that we may provide to some customers.[37] In its final determination on access, pricing, and incentive arrangements for distributed energy resources, the AEMC recognised the potential for distribution network service providers to provide these services by classifying them as distribution services.[38]

> The AER, in its final Framework and Approach for Victorian electricity distribution network service providers has accepted our proposed change to enhanced connection services which is currently classified as direct control and alternative control. The change includes the addition of 'management of export and load at a customer site that provides the customer greater network capacity than they would otherwise be eligible for'.[39]

32 NER clause 6.2.1A(b).
33 JEN, Submission for replacement Framework and Approach paper: 2026-31 regulatory control period, October 2023, p. 24.
34 AER, Final Framework and Approach Papers for AusNet Services, CitiPower, Jemena, Powercor and United Energy 2026-31, July 2024, pp. 7-8.
35 See Victorian Government, Victoria's emergency backstop mechanism for solar, accessed 18 July 2024. See *Victoria Government Gazette*, No. S 542, 11 October 2023.
36 JEN, Submission for replacement Framework and Approach paper: 2026-31 regulatory control period, October 2023, p. 26.
37 JEN, Submission for replacement Framework and Approach paper: 2026-31 regulatory control period, October 2023, p. 26.
38 AEMC, Access, pricing and incentive arrangements for distributed energy resources, Rule determination, 12 August 2021.
39 AER, Final Framework and Approach Papers for AusNet Services, CitiPower, Jemena, Powercor and United Energy 2026-31, July 2024, pp. 8-9.

5. Our capital investment



Highlights

- We forecast a total capital expenditure of around $2B in the next regulatory period, a 47 per cent increase from our expected capital expenditure for the current regulatory period.
- We expect a significant increase in new connections, and we have an obligation to offer connections.
- We will invest in asset replacement programs to maintain our network's reliability and manage risk.
- We will consider approaches to making our network more resilient to withstand and recover from the increasing intensity of extreme weather events.
- Our augmentation capital expenditure will help us manage the growing challenges associated with maximum and minimum demand and address the greater reliance on the electricity network to support the substitution of reticulated gas and transition to transport electrification. It will also help us to accommodate connecting more customer energy resources into our network, benefitting all customers.
- We plan to leverage new technology solutions to use our network more efficiently, respond more quickly to changing customers' expectations and deliver a more efficient service.
- The initiatives under our capital expenditure forecast are consistent with our customers' expectations and recommendations.

5.1 Overview

Climate change, consumer choices, technology and policy changes have all accelerated the transformation of the energy market in Australia. This means electricity distribution network service providers like ours need to adapt and innovate in the way we serve our customers when moving electricity to and from their homes and businesses.

In addition, our decisions are heavily influenced by our customers' expectations and priorities. Our customers' main concern continues to be affordability, but they also want us to focus on reliability, facilitating the energy transition, sustainability and quality customer service. These are all relevant to capital expenditure.

Our customer's priorities and expectations

Reliability and resilience, power quality

- Our customers expect us to prioritise investment in network reliability and network resilience. In addition to our customers' expectations, the Victorian Government is placing several obligations on electricity distribution network providers, including us, to make the network more resilient.

Digitisation and automation

- Our customers want us to digitise and automate the network to make it smarter, more responsive and more efficient.

Sustainability, decarbonisation and support for renewable energy transition

- Our customers want us to facilitate the transition to renewable energy sources and champion renewable energy in new housing and estates.
- Customers see us playing a leading role in enabling energy storage and incentivising battery take up, and they want us to prepare for the increase in EV charging.
- Customers expect our operations to be sustainable and to connect and maximise the use of green energy across the network as much as possible.

5.1.1 Our capital expenditure objectives

In preparing our draft plan, we developed capital expenditure objectives that reflect our customers' expectations, the capital expenditure drivers (noted above) and capital expenditure objectives and criteria contained in the National Electricity Rules. Our objectives are to:

1. meet customers' expectations that we should maintain our current levels of network reliability at the most efficient cost over the long term
2. meet our customers' expectations that our network and communities are able to withstand and recover from extreme weather events
3. manage safety, environmental, electrical system and security risks to as low as practicable and comply with all applicable regulatory obligations efficiently over the long term
4. connect new customers to the electricity network and meet the changing energy needs of existing customers, ensuring we can meet or manage expected demand for all customers
5. optimise exports and imports from distributed energy resources and CER to the distribution network.

We have developed our capital expenditure forecast with these objectives in mind.

We forecast our capital expenditure through a 'bottom-up' process and followed the AER's expenditure guidelines when developing our capital expenditure forecast.

We note that the capital expenditure forecast in this chapter only relates to our standard control services. Our capital expenditure forecast for our metering services—which are categorised as alternative control services—are discussed separately in Chapter 10.

5.1.2 Our asset management practices

Jemena recognises its responsibility to act prudently and efficiently when investing in the distribution network to meet customer and community needs. One way we do this is by adopting strict asset management practices to put controls in place to test the investment need. Our best practice asset management activities involve balancing costs, opportunities and risks against performance. We do this by managing investment decisions through our ISO55001 accredited systems and processes. Our Asset Management System (AMS) enables a systematic approach to combining management, financial, economic, engineering, and other practices applied to physical network.

Our AMS enables us to effectively direct, coordinate and control asset management activities throughout an asset's entire life cycle. It facilitates an optimal mixture of capital investments, operations, maintenance, resourcing, risks, performance, sustainability and good governance.

Jemena is also compliant with the Electricity Distribution Code of Practice (EDCoP) – Good Asset Management practices. This involves Jemena developing and implementing plans for the acquisition, creation, maintenance, operation, refurbishment, repair and disposal of our distribution system assets whilst complying with laws and performance obligations to minimise risk and cost to customers.

5.2 Our current period capital expenditure performance

We estimate our total gross capital expenditure for the current regulatory period to be $1,365M (Figure 5.1), which is 46 per cent higher than the allowance set by the AER in early 2021.[40] The estimated increase in capital expenditure—above allowance—has occurred for several reasons, including:

- an unprecedented increase in connections capital expenditure and the associated augmentation. We have received a significantly higher number of connection applications from large customers—particularly data centres. Growth in the number and size of data centres has primarily arisen in response to the emergence of Artificial Intelligence (AI). This technology was not in existence when forecasting the current regulatory period, making it an unforeseen trend. Under the National Electricity Rules, we are bound by an obligation to offer to connect customers and if they accept our offer, we must connect them, even if this means spending above the price determination allowance.
- The world was entering into the COVID-19 pandemic, and conditions signalled an ensuing economic decline. Based on this, the AER reduced our proposed capital expenditure allowance.

We note these extraneous factors are significant and in no way indicate that Jemena has been inefficient by spending above the allowance set by the AER.

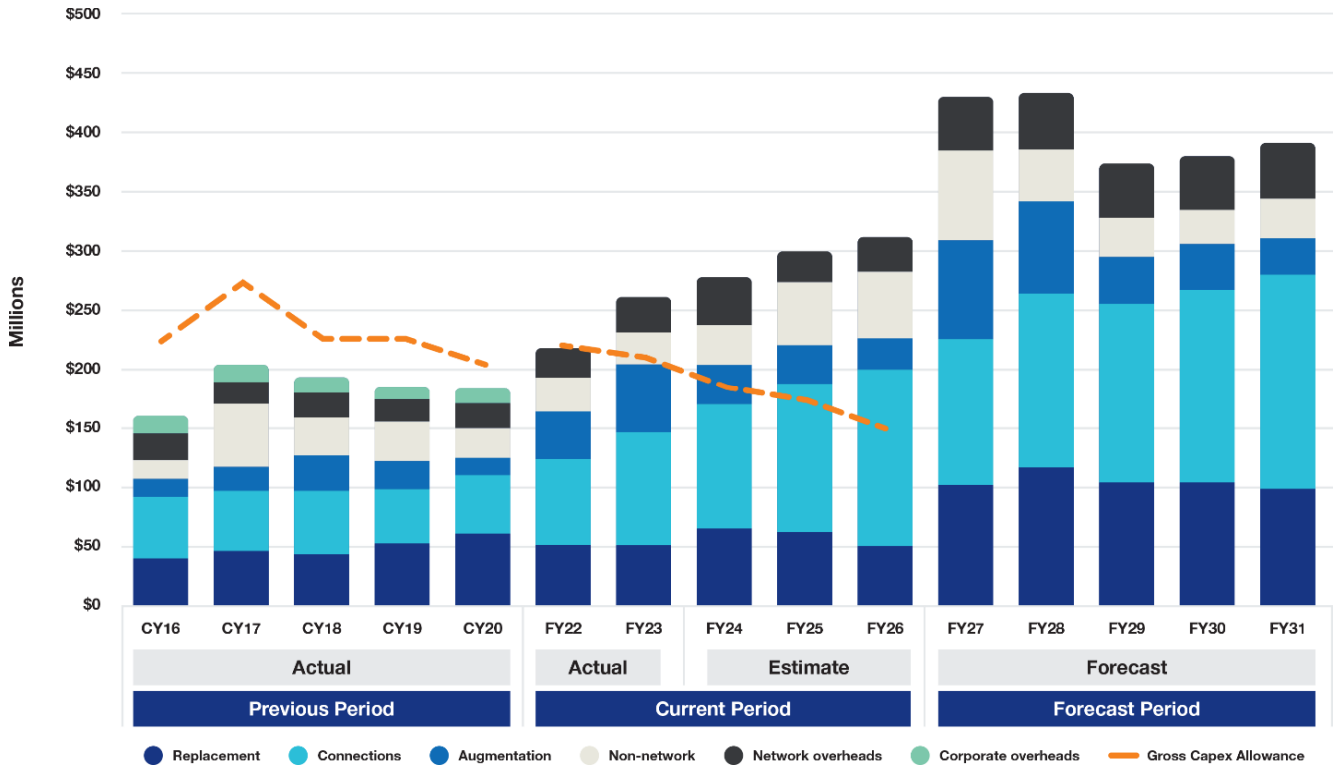
40 Excluding pending cost pass through applications.

5.3 Our forecast capital expenditure

As outlined in Figure 5.1, we forecast a total gross capital expenditure of $2,003M for the next regulatory period, which is 47 per cent higher than our estimated gross capital expenditure for the current regulatory period.

The key drivers of the increase in our forecast capital expenditure relate to connections, replacement, and augmentation, including zone substation redevelopment which is driven by the growth in data centres and increased electrification coming from technological and market innovations and government policies driving gas substitution. We outline these in more detail in the following sections.

Figure 5.1: Historical and forecast gross capital expenditure, Real $2026, millions







5.4 Replacement capital expenditure

Replacing part of our existing electricity distribution network accounts for 26 per cent of our total capital expenditure forecast. We need to maintain the current condition of our existing assets, or else they will deteriorate further; if the assets deteriorate too much, they will eventually fail. If failure occurs, the quality of service we provide to our customers would decline and we would fail to comply with our regulatory obligations and potentially negatively impact the stability of the wider electricity system. These are significant risks and therefore we must be proactive in monitoring and managing our asset replacement program.

We have forecast a replacement capital expenditure of $526M in the next regulatory period which is 86 per cent higher than our estimated replacement capital expenditure for the current regulatory period. Replacing distribution system assets is the main contributor to the increased costs, followed by the replacement of SCADA, network control and protection systems, and sub-transmission assets.

Two of our biggest projects behind our proposed replacement capital expenditure include the:

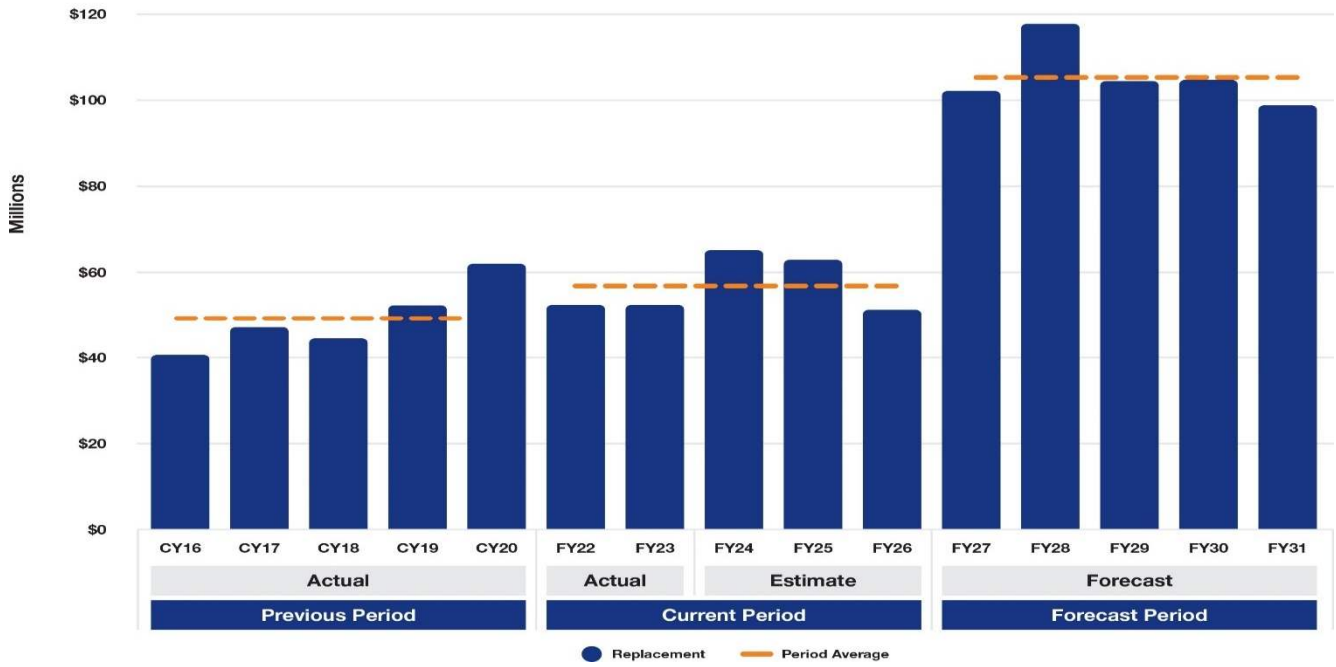
- **Coburg North Redevelopment ($51M)**. The Coburg North zone substation is at risk of failure due to its age and poor condition. It was built 60 years ago under an electrical standard that is no longer used and with electrical assets that can no longer be purchased. A substantial replacement program is required to bring the networks in the Coburg North areas up to a modern equivalent.
- **66 kV Bushing Replacement Program ($10M)**. This program is needed to address the growing risk of power transformer failure at our zone substations. The 66kV bushings of a transformer are a critical component as they connect the transformer to enable full functionality of the asset. A failure of this connection results in an inoperable transformer. Our condition-based assessment forecasts an increase in the risk of failure, adverse operability and performance of power transformers unless at-risk bushings have been validated and replaced accordingly.

Our forecast replacement capital expenditure is guided by our capital expenditure objectives 1 to 3, as noted above. To meet our objectives for the next regulatory period—and over the long term—we will:

- continue our long-term program to replace some large families of assets such as poles, cross arms and overhead services, whose condition continues to degrade. This is to manage safety risks and comply with relevant safety obligations and, at the same time, meet our customers' expectations on network reliability.
- pursue a replacement program for at-risk sub-transmission assets. This is critical to ensure we provide reliable service to our large customers.
- replace some SCADA and network control assets to ensure that we can closely monitor and control the network to maintain the desired operating conditions.

Figure 5.2 shows our historical and forecast replacement capital expenditures.

Figure 5.2: Gross replacement capital expenditure, Real $2026, millions



5.4.1 Our customer's expectation to replace asset

Customers have told us to prioritise investing in reliability by assessing, building, and maintaining the network to meet changes in operating conditions and meet future demands.

Our residential customers have told us they see great importance in investing in network infrastructure with a focus on:

- improving and maintaining service standards and customer experience
- reducing the frequency of power outages
- continuing to invest in upgrading the network's ability to "self-heal"
- having flexibility to accommodate network growth and future demand.

"Talking to the guys that actually work on the ground. Just getting a broader picture, what their day to day operations looks like. What kind of infrastructure is actually powering our grid and connect the dots I guess between what is actually happening within Jemena and why they price things a certain way." People Panel's member

5.4.2 Our approach to asset replacement

Using condition and consequence measures, we take a risk-based approach to determining whether we need to replace our assets. The drivers for replacement capital expenditure include deterioration in the condition of an asset or its environment and where increases in maintenance costs mean it is more cost-effective to replace an ageing asset than continue to maintain it. We also undertake consequence-based replacement when we undertake a thorough assessment of 'needs' to determine whether a lower-rated asset could satisfy a requirement rather than blanketly apply a like-for-like replacement.

We manage and plan asset replacement by grouping our assets into a set of classes, for which we develop project and program-level forecasts. For some critical assets, we develop a condition-based risk model to support our evaluation of the probability of asset failure and rates of future failures. Once we have identified a need, we develop and evaluate replacement options. We then develop a cost estimate for each option given the scope of works and relevant unit cost schedules for those options.

Our approach ensures that our replacement expenditure is only the amount necessary to continue supplying customers based on their current and likely future requirements.

5.5 Network resilience

Network resilience is the ability of the electricity network to withstand and recover from the effects of a natural hazard or disaster, such as floods, storms and bushfires. We note that reliability is different from network resilience. Network reliability is the ability of a system, device or equipment to perform its function adequately for the period of time intended under the operating conditions encountered.

Our customers and communities have advised us of their increased expectations about how we perform in extreme situations. Throughout our engagement process with our People's Panel, our customers told us that Jemena needs to prioritise investing in network resilience so it can withstand and recover more quickly from the effects of a natural hazard or disaster.

In addition to hearing from our customers, we engaged with the other Victorian distributors to investigate and better understand the impacts and community expectations for network resilience. We undertook a climate change and customer engagement study with these stakeholders to identify and consider what a resilient network looks like.

Following the extreme storm events on 13 February 2024, the Victorian Government initiated a review by an independent panel (Panel) on network service provider processes and performance through extreme weather events. The Panel has issued a set draft recommendation, however, due to the timing of release, we have not been able to incorporate the impacts into this Draft Plan. Instead, we have developed a supplemental document outlining possible courses of action and investment to implement the recommendations. This supplemental document is also being consulted on and is provided as a companion document with this Draft Plan.

We are now in the process of investigating several network resilience projects, which we will propose to implement in the next regulatory period. Our proposed network resilience projects will be included in our proposed network reliability projects for the next regulatory period.

"We'd like to see collaboration between Councils and Jemena so it's unified. It would provide the community with a better understanding and produce trust."
Local council representative

5.6 Connections

Connections account for 38 per cent of our capital expenditure forecast. We need connections capital expenditure to plan and construct new large customer connections; we undertake this work at the request of new customers wanting to connect to our network.[41] We have an obligation to offer a connection to any customer wanting to connect to our network; if a customer accepts this offer, then we must connect them.[42]

The nature of connections activities and expenditure is unique compared to most other expenditure categories, and this uniqueness poses challenges for preparing short, medium and long-term forecasts. This is because:

- connections are a reactive activity only undertaken in response to customer requests
- the volume of work is primarily driven by external factors (for example, economic activity)
- there is a wide variation in customers' requirements, and therefore, connection project types and costs will vary significantly.
- the number and type of customers we expect to connect to the electricity distribution network is the key driver to forecasting the connection capital expenditure required in the next regulatory period.
- This is especially true for non-routine connections, which are customer-driven in nature and difficult to predict. For example, since the AER approved our price determination for the current regulatory period, we have connected a number of large data centres that we had not accounted for in our previous forecasts.

Our forecasts for large business customers are based on the best available information shared with us by prospective customers and an estimate of projects towards the later stages of the next regulatory period. This, however, presents challenges when forecasting

41 NER, clause 5A.F.4
42 NER, clause 5A.F.5

connection capital expenditure requirements towards the end of the regulatory period because few customers seek a connection over such long time horizons. Five years is a long period over which to be predicting new technology (of which AI and data centres is an example) and the impact it will have on the networks (on top of the impact of technology in the energy space and energy transition). To address this challenge, we have developed a horizon forecast to estimate connection capital expenditure in the outer years of a regulatory period as a means to forecast projects that we know will eventuate.

Capital expenditure objective number 4 is our main objective for connections but objectives 1-3 are also relevant as we need to ensure that as we connect new customers, we continue to provide a reliable service to existing customers.

We forecast connections capital expenditure of $763M for the next regulatory period, which is 40 per cent higher than our estimated connections capital expenditure for the current regulatory period.

Some of our key connection projects for the next regulatory period include building new sub-transmission assets for new large customers such as data centres and building new substations in different areas of our network to meet forecast growth in connections.

What is a data centre?

Whether you use the internet for online banking, connecting with friends and family, or working from home – you are creating data.

While we tend to describe this data as existing in the 'cloud', the websites and apps you interact with store this data in large computer servers. These servers and the systems that keep the data secure are housed in purpose-built buildings called data centres.

It is estimated that over the next five years, trends in internet usage and new technologies like AI will generate twice as much data than the past 10 years. This means that data centre storage will need to increase by 18.5 per cent every year over the same period.



What does this mean for the electricity network?

Data centres are energy intensive. Not only is a large amount of electricity needed to run the computer servers and keep them cool, but the centres also need to be operational 24/7. They are designed with high levels of electricity redundancy to minimise the chance of a power outage. This means that when they connect to the network, costly upgrades are often required to ensure they can get all the electricity they need, all the time.



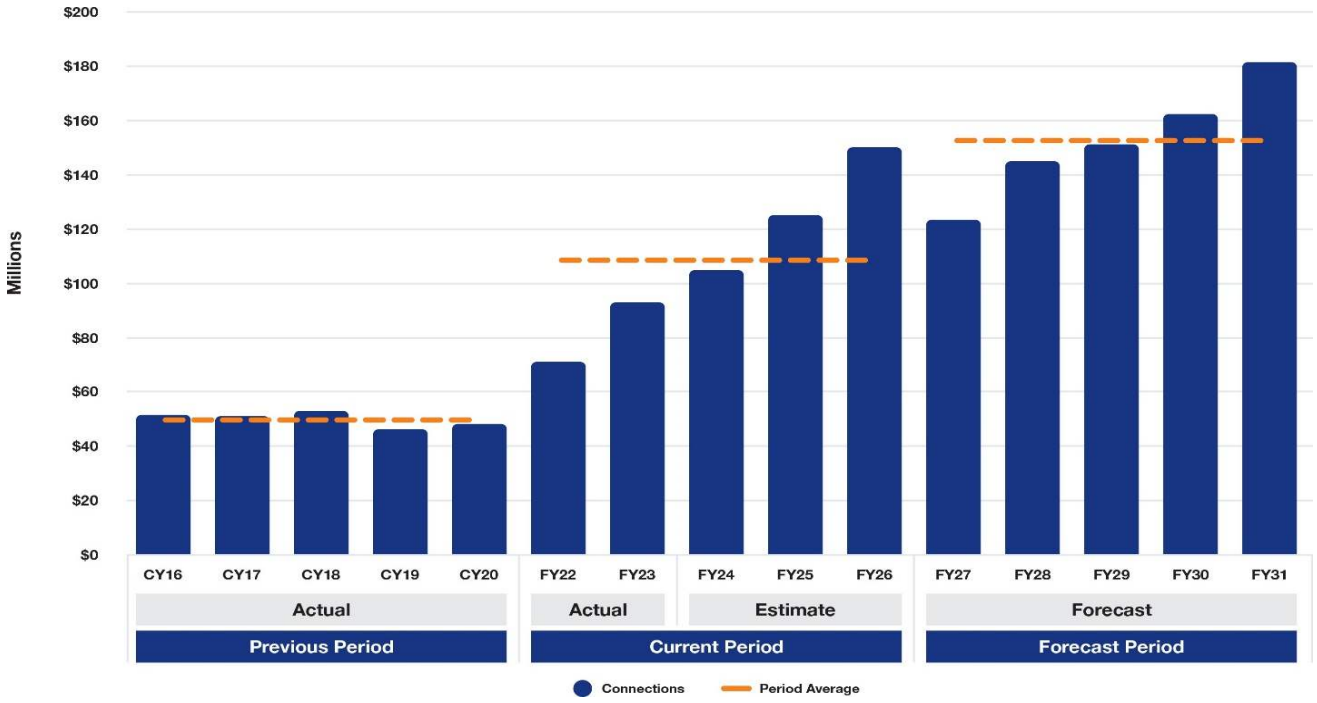
What does this mean for our customers?

Connecting these data centres to our network is increasing our capital expenditure. However, in the long term, their presence on the network will reduce costs for all customers due to economies of scale.

In addition, connecting these data centres to the network means our customers can continue to work, scroll social media, order groceries and stream movies online.

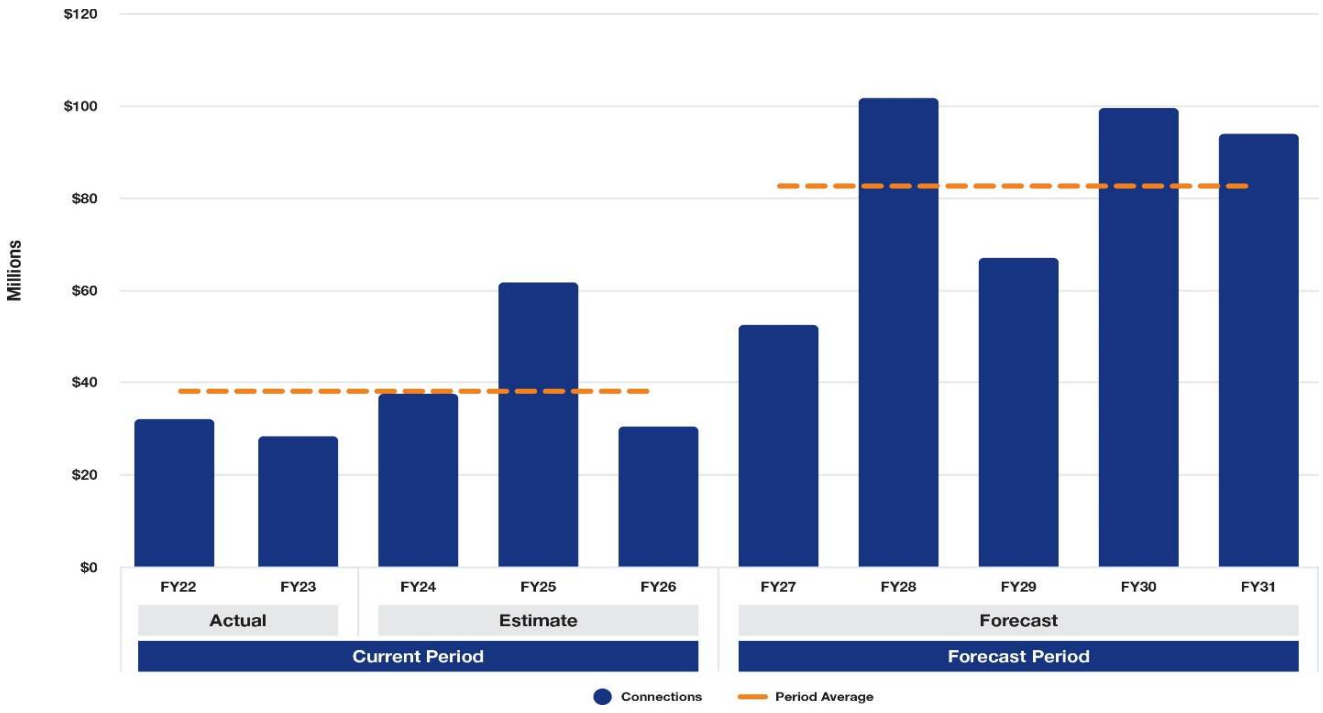
Figure 5.3 shows our historical and forecast gross connections capital expenditure.

Figure 5.3: Gross connections capital expenditure, Real $2026, millions



Under the current regulatory framework, connecting customers are expected to pay their way to connect and not have this cost recovered from existing customers. To achieve this, we charge large connecting customers a capital contribution after accounting for the amounts we charge through their network bills. Figure 5.4 shows our forecast connections capital expenditure after we account for customer contributions. We believe our forecast represents the most efficient way of using our capital to achieve our connections objective.

Figure 5.4: Net connections capital expenditure (that is, net of large customer contributions), Real $2026, millions



5.7 Augmentation

Augmentation accounts for 14 per cent of our capital expenditure forecast. We need to invest in augmenting (or growing) our network to ensure that it can meet customer and regulatory requirements for network capacity, quality of supply and network safety. Typically, this category of expenditure is driven by changes in our customers' maximum demand for electricity. Relevantly, other augmentation expenditure drivers are becoming increasingly prevalent, such as providing hosting capacity to accommodate an increase in energy exports from small-scale CER and accommodating the forecast uptake in electric vehicles. Electrification, gas substitution, and regulatory and legal requirements are other drivers for augmentation in the next regulatory period.

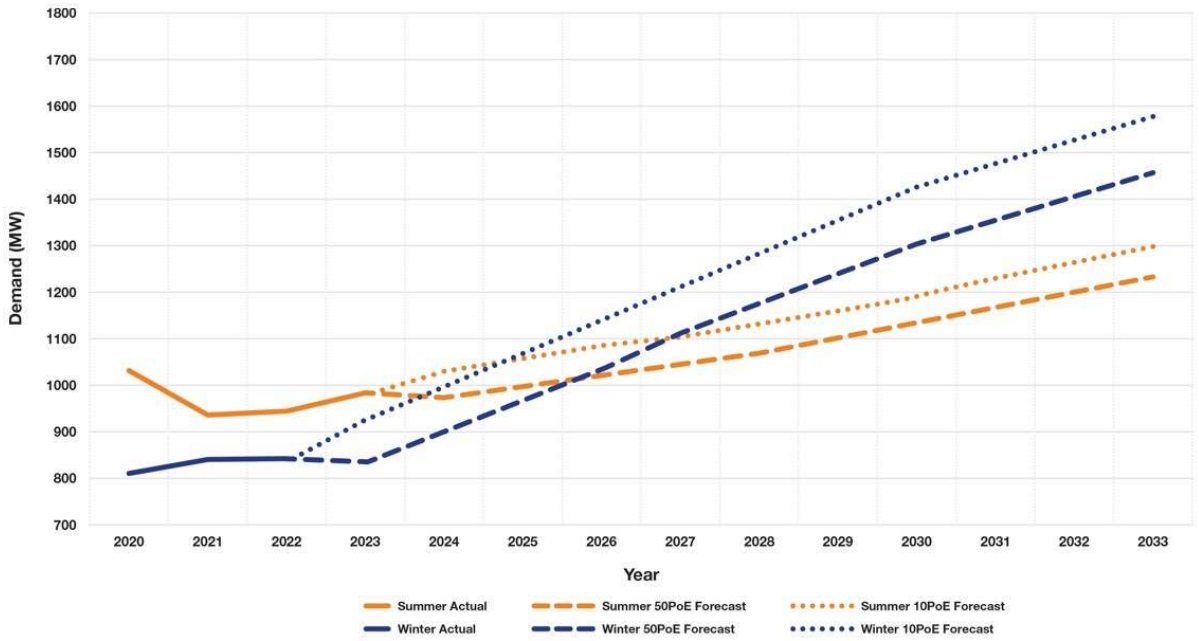
We have considered these factors in forecasting the system's maximum demand for the next regulatory period. In addition, we considered regional development plans and population growth as forecast by the Victorian Government and the best-available information from prospective large business customers, including data centres.

5.7.1 Forecast maximum demand

The growth in maximum demand across our network is forecast to increase significantly, with the total underlying network 50 per cent probability of exceedance[43] maximum demand forecast to grow at an average rate of 3.76 per cent per annum over the next five years (between 2023-24 to 2028-29). More recent forecasts have highlighted sharper increases in demand, which are expected in future years as decarbonisation initiatives, gas substitution, and electrification start to take effect. Our forecast also shows that the peak demand period is expected to change. For decades, Jemena's electricity network has peaked during summer, which is particularly driven by customers' air conditioning requirements. However, with gas sustainability coming into effect, we anticipate peak demand will occur in the winter season instead of summer.

The historical and forecast coincident peak demand growth is outlined in Figure 5.5.

Figure 5.5: Forecast maximum demand (MW), 2024

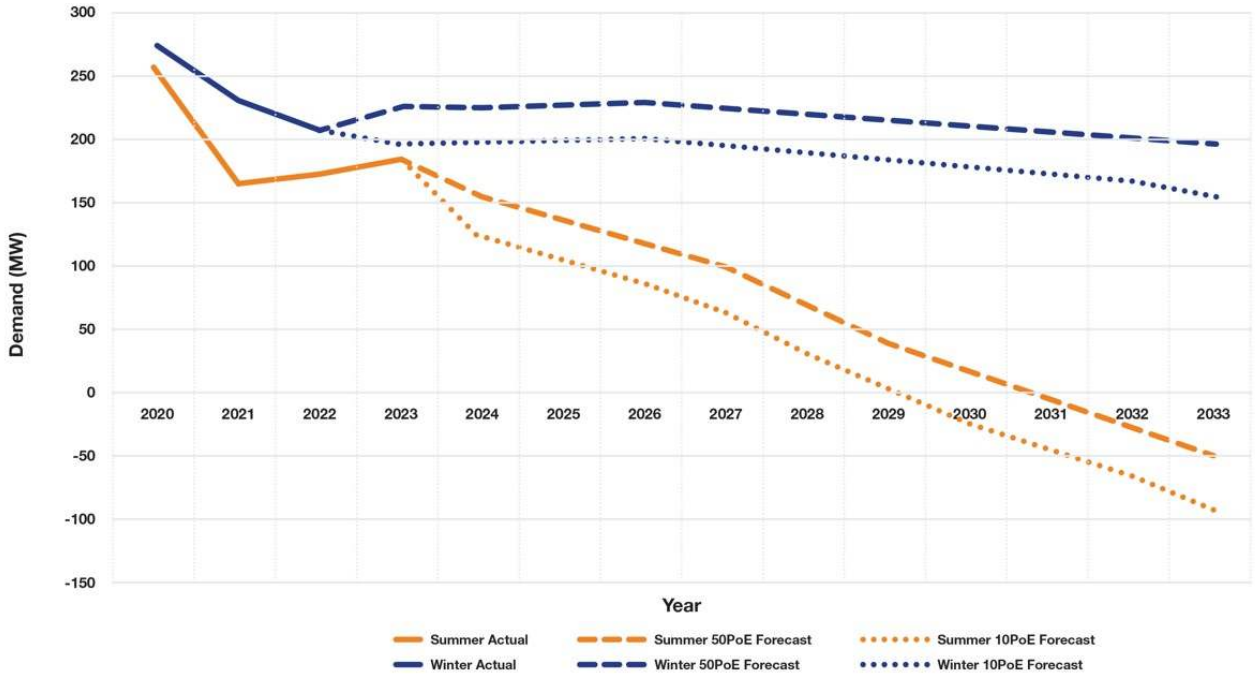


43 What is probability of exceedance? When considering the future demand for electricity, we develop multiple forecasts with different levels of 'probability of exceedance' to account for the potential variability in actual demand. A 10 per cent probability of exceedance forecast has a 10 per cent chance that the actual demand will be higher than the forecast, and a 90 per cent chance that actual demand will be lower than the forecast.

Despite the general growth in demand at the network level, there are areas within the network where maximum demand is forecast to grow above the network average level. In contrast, other parts of the network are forecast to experience a decline in maximum demand.

Networks experience minimum demand—the lowest amount of network demand experienced at any point in time—as a result of electricity being produced from rooftop PV generating systems. Minimum demand causes voltage disturbances and ultimately puts a limit on the amount of PV our network can receive. We forecast the levels of minimum demand on our network will continue to decline, imposing system security risks to our network (Figure 5.6).

Figure 5.6: Forecast minimum demand (MW), 2024



In previous price resets, minimum demand was never considered an issue; we were able to manage voltage and other compliance requirements within a tolerable range. However, with the significant growth of customers installing PV generation in recent years, new technical issues have emerged—including the challenges arising with minimum demand. This new phenomenon is something that needs to be managed in the next regulatory period because not acting could compromise the electricity system (see objectives 3 and 5)

While minimum demand is declining, peak demand is increasing due to EV charging loads and other decarbonisation initiatives such as gas substitution. If Jemena continues to build distribution infrastructure to cater for the increasing peak demand—while minimum demand is decreasing—the infrastructure will become increasingly underutilised.

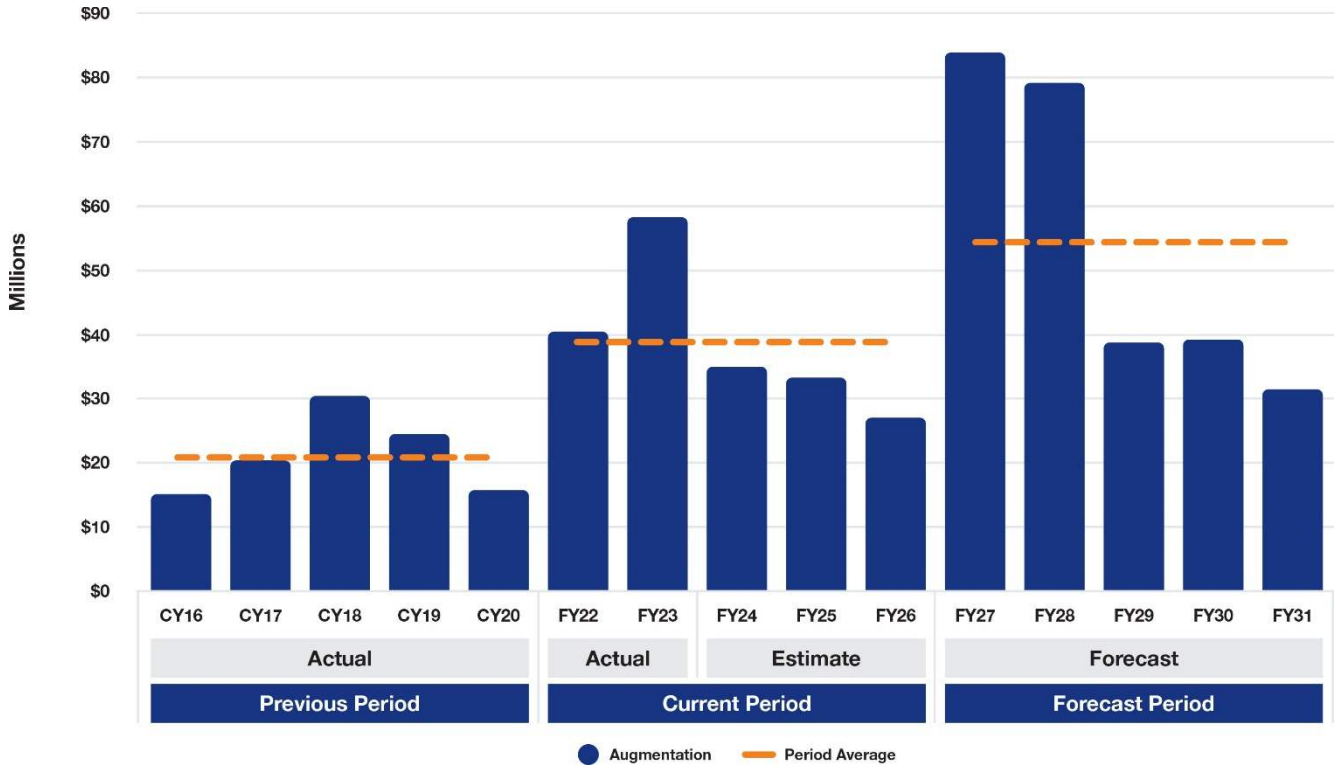
Several options could be implemented to address the challenges of minimum demand (at times of peak export to the distribution network) and maximum demand (at times of peak demand when customers consume the most amount of electricity at the same time). The best options deal with the challenges holistically, not treating peak export and peak demand as separate issues to resolve.

Solutions we are implementing include:

- emergency backstop for distributed photovoltaics to manage minimum peak demand challenge and load shedding to manage maximum demand. These should only be relied upon as a last resort because of their impact on customers
- customer and market options that may be used more frequently, (such as coordinated storage and EV charging, scheduled loads such as pumping load and demand response) to support system security at these times.

We forecast a total augmentation capital expenditure of $272M for the next regulatory period, which is 40 percent higher than our estimated augmentation capital expenditure for the current regulatory period. Figure 5.7 shows our historical and forecast augmentation costs.

Figure 5.7: Gross augmentation capital expenditure, Real $2026, millions



Our forecast augmentation capital expenditure is required to meet and manage expected demand and comply with regulatory obligations (capital expenditure objectives 1-5). We will augment several major sub-transmission and distribution assets, such as those in the northern growth corridor and central area of our supply area, to ensure we meet our forecast maximum demand and maintain current levels of supply reliability.

Two of our biggest projects behind our proposed augmentation capital expenditure include the:

- **Northern Corridor Network Development Strategy ($52M)**. The key drivers for an asset management intervention relates to:
  - existing and emerging asset utilisation limitations associated with maximum demand growth
  - the management of underground cable lengths on Rapid Earth Fault Current Limited (REFCL) protected feeders to maintain the required REFCL performance at Coolaroo as a part of the Victorian bushfire safety regulations.
- **Central Area Network Development Strategy ($30M)**. The key driver relates to existing and emerging asset utilisation limitations associated with maximum demand growth, reducing the spare capacity available within the distribution network.

We consider that our forecast augmentation capital expenditure will help us to achieve our augmentation objectives and meet our customers' expectations.

5.8 Non-network capital expenditure - Information and communication technology

Information and communication technology enables us to operate a safe and reliable electricity network and keep support services, such as billing and call centres, running. ICT assets play a critical role in supporting the efficient delivery of services to customers, and their importance grows as the digitisation of the network accelerates. Our ICT assets also provide platforms that support a wide range of activities for our customers:

- facilitating the real-time monitoring and control of the electricity network
- interacting with customers and other market participants, including receiving service requests and facilitating billing
- planning and managing field operations, including construction, maintenance and outages
- recording, reporting and analysing asset and geospatial information, including for asset management planning
- general corporate support activities for our operations, including finance, reporting, human resources, procurement and compliance with regulatory obligations.

ICT is also playing a more significant role in enabling our future network strategies over the next ten years (see Chapter 3 – The Energy Transition). Some of the technologies We will implement include:

- Dynamic voltage management rollout (also called Volt Var Control (VVC)). At times when there is increased CER in the network, the VVC can dynamically and automatically adjust network voltages to maintain compliance with the Victorian EDCoP requirements. VVC can also push voltages down to reduce carbon emissions and energy consumption.
- Distributed energy resources management system (DERMS) solution. This will help us coordinate CER and manage minimum demand as part of an integrated system.
- Distributed Under-Frequency Load Shedding (Distributed UFLS) Scheme to strategically respond to the challenges and opportunities associated with the increasing number of CER in our network.
- Managing flexible exports and imports capability by dynamically controlling export and import limits using Dynamic Operating Envelopes (DOEs) that are required to minimise CER curtailment while ensuring JEN's network operates within its asset ratings.

The alternative to implementing these ICT capabilities is to continue to build out the traditional network, that is, 'poles and wires', to alleviate distribution network export and import constraints to avoid the cost of managing overloaded distribution assets. However, this option does not address all the issues; customers will still face the risk of network instability and system collapse, which has unserved energy from supply outages and no access to new market products and services. These ICT systems are the only effective means of meeting the needs of customers in the energy transition.

We will also deploy other technologies in response to market obligations outlined by the Australian Energy Market Operator, which include:

- Flexible trading arrangements to enable the identification of CER at the customer level and to facilitate customers' engagement with multiple service providers; it also enables minor energy flow metering for connection arrangements not currently considered in the NEM metering framework (Type 8,9 meters)
- Integrated Price Responsiveness to establish a voluntary mechanism to incentivise price-responsive CER to provide visibility and participation in the market scheduling process of the NEM (5MW to 30MW).

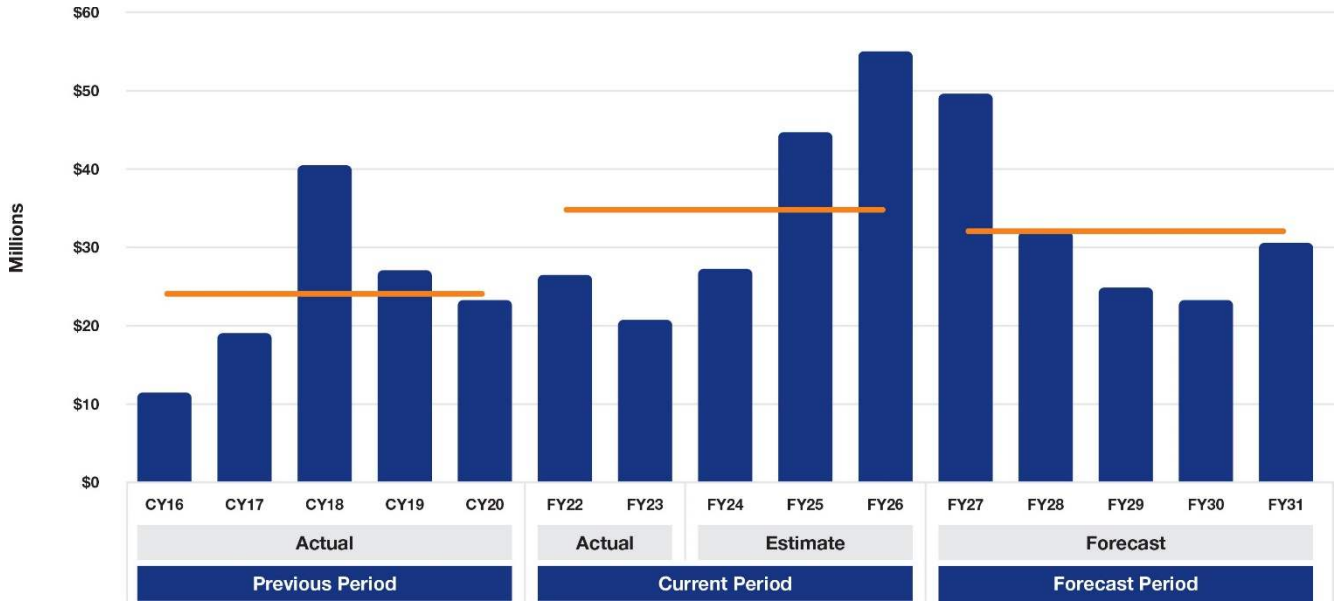
Unlike network assets, which remain relatively static over their long life spans, digital systems have a short lifecycle due to technical obsolescence and changing customer requirements. This—along with increasing digitisation and the pace of change—means our need to invest in digital systems is increasing.

"Key thing is efficiently matching demand to supply in both consumption and export whilst allowing self-determination by customers, and without overbuilding the network" Energy Reference Group member

We forecast a total ICT capital expenditure of $160M for the next regulatory period, which is 10 per cent lower than our estimated ICT capital expenditure for the current regulatory period. Whilst there is an overall increase in the ICT requirements, the magnitude of our capital expenditure has decreased relative to the previous regulatory period because of changes in the interpretation of the international financial reporting standards (IFRS) standards, which see most of these costs being treated as optional expenditures.

Figure 5.8 shows our historical and forecast non-network ICT capital expenditure for the next regulatory period.

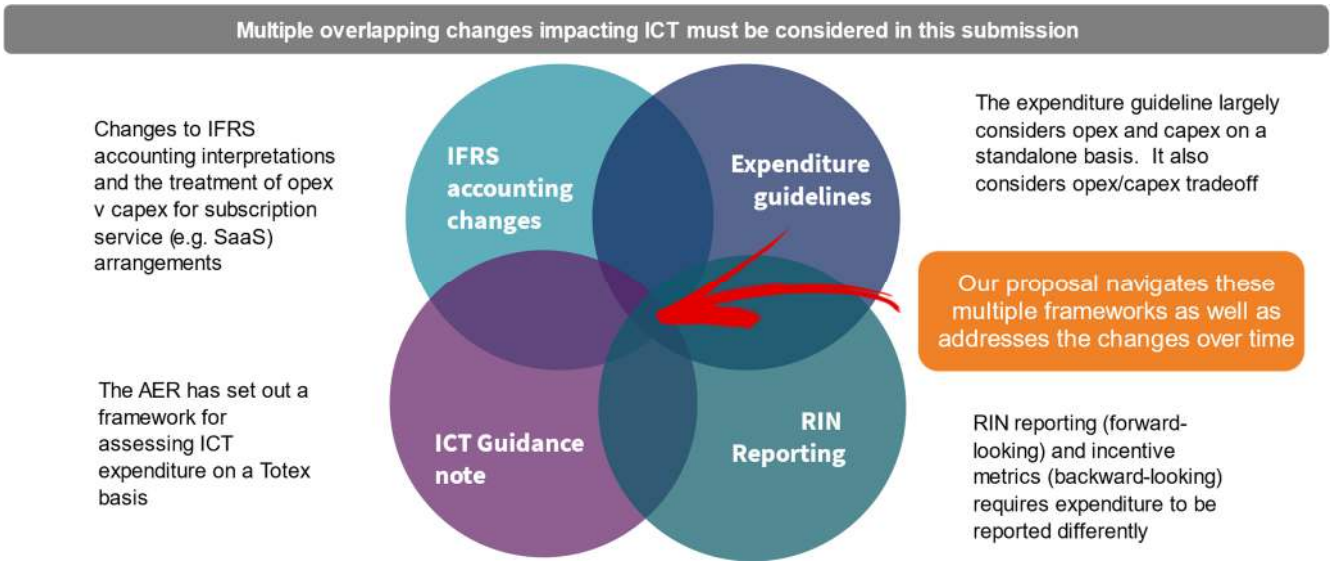
Figure 5.8: Gross non-network ICT capital expenditure, Real $2026, millions



5.8.1 Our approach to forecasting ICT expenditure

Our forecast non-network ICT capital expenditure is mainly guided by our capital expenditure objectives 3 to 5, however, objectives 1 and 2 are also relevant. We are also guided by several external factors, including regulatory and IFRS requirements, all of which must come together to ensure our ICT forecast is efficient and complies with various obligations. Figure 5.9 below outlines the various standards, obligations, guidelines, and frameworks within which we must operate to develop a compliant ICT forecast.

Figure 5.9: Standards, obligations, guidelines and frameworks we must operate within to develop a compliant ICT forecast



We developed our non-network ICT capital expenditure forecast to:

- manage and maintain our ICT capabilities with a balanced approach to the cost and acceptable level of risk
- ensure ICT capabilities are sustainable and reflect good industry practice
- leverage new technologies to improve operational efficiency and effectiveness
- meet market reform requirements.

As noted above, we adopted the approach outlined in the AER's ICT expenditure forecasting assessment approach when forecasting the expenditures involved in delivering the ICT architecture[44] whilst also keeping an eye on the other requirements. Using this framework, we developed capital expenditure forecast proposals based on two categories:

- Recurrent ICT – this category of forecast expenditure is determined by taking the five-year average recurrent capital expenditure that arises within the current period. The forecasting approach works on the assumption that this type of expenditure occurs on a cyclical (recurrent) basis, with cycles occurring between one and five years.
- Non-recurrent ICT – this category of forecast capital expenditure occurs on cycles of more than five years or has not previously occurred. The approach to forecasting projects that have non-recurrent capital expenditure is based on a bottom-up estimate of costs.

Complying with recent changes to the IFRS accounting standards has meant that much of our ICT expenditure is treated as operating expenditure in the next regulatory period, meaning there is an increased focus on total ICT expenditure to provide services to our customers. In Figure 5.10 below, we outline the forecast ICT expenditure by capital expenditure and operating expenditure, as well as recurrent and non-recurrent expenditure.

Figure 5.10: Forecast ICT expenditure by capital expenditure, operating expenditure, recurrent and non-recurrent expenditure



We elaborate on the ICT operating expenditure in Chapter 6.

44 AER, *Non-network ICT capex assessment approach*, November 2019.

5.9 Non-network - other capital expenditure

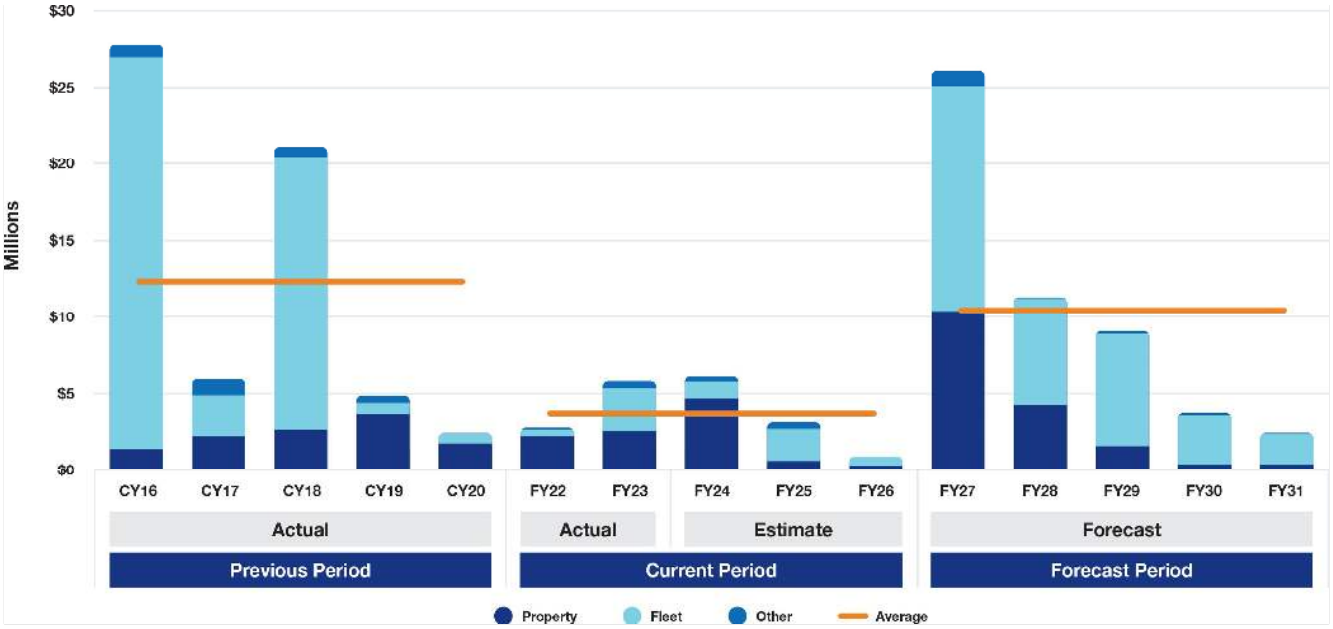
Non-network other capital expenditure accounts for 5 per cent of our total capital expenditure forecast. Other non-network assets enable the delivery of our services. They predominately comprise the following items:

- vehicle fleet
- property and buildings
- tools and equipment.

We forecast a total non-network other capital expenditure of $52M for the next regulatory period, which is 179 percent higher than our estimated other expenditure for the current period. Figure 5.11 shows our historical forecast of other capital expenditure costs for non-network.



Figure 5.11: Gross non-network - other capital expenditure, Real $2026, millions



The vehicles in our fleet allow personnel, specialised tools and equipment to travel around our electricity network and perform emergency fault response, repair, maintenance, inspection and construction. Our fleet is, therefore, critical to us delivering the services required to maintain a reliable network. For the next regulatory period, a large portion of our other non-network capital expenditure will be used for vehicle replacement. We forecast vehicle fleet capital expenditure in accordance with our fleet asset class strategy. This strategic plan sets out how and when we maintain and replace vehicles to ensure they operate safely and are fit for purpose. We will replace vehicles with a more environmentally friendly fleet that is consistent with our customers' recommendations on sustainability and decarbonisation.

Our asset class strategy specifies that large elevated work platforms will be rebuilt after ten years and replaced prior to 15 years of age. Small elevated work platforms and heavy commercial vehicles are replaced when they reach ten years of age, whilst light commercial vehicles and passenger vehicles are replaced at the earlier of 5 years and 150,000km following a condition assessment.

Jemena is experiencing a significant uplift in its capital program of work activities. A key driver of this uplift is an expanding customer-initiated program encompassing major connections for new data

centres, distributed generation, large business developments and transport projects. A further aspect of this growth is the organic growth in areas such as the Northern Growth Corridor, which includes suburbs such as Craigieburn, Kalkallo, Mickleham, Broadmeadows and Somerton. The implication of this expanded capital works program is that we must expand our field workforce to be able to deliver this work. This means that we are required to increase the number of fleet assets.

We forecast to increase spending on property in the next regulatory period noting that our capital expenditure allowance for the current regulatory period is minimal and only for refurbishments. Our biggest spend on property will be on Tullamarine depot augmentation. Our capital expenditure on property and buildings is forecast using bottom-up cost builds, as supported by business cases.

Capital expenditure for our tools and equipment is forecast in accordance with our general tools and equipment strategy, which sets out the equipment lifecycles for different assets. For the next regulatory period, we will spend very little on tools and equipment.

Questions for your consideration

- What do you think about our proposed capital expenditure for the next regulatory period?
- Are there other concerns or expectations that we have failed to account for in our forecast?
- Do you have other suggestions in relation to our forecast capital expenditure for the next regulatory period?



6. Our operating expenditure



Highlights

- Our forecast operating expenditure for the next regulatory period is $623M, which is, two per cent lower than our allowance for the current period in real terms.
- Due to the efficiencies we realised through our transformation program, we expect to significantly underspend our current period allowance. Our customers will benefit from these efficiencies in the long term.
- We operate efficiently and benchmark well amongst our peers. Our forecast base year operating expenditure is below the efficient level estimated using the AER's benchmarking approach.
- Our forecast operating expenditure is 36 per cent higher than our expected actual operating expenditure for the current period. The primary drivers of the increase in operating expenditure are changes in accounting treatments to reclassify costs from capital to operating expenditure and transitioning to cloud and other ICT services. We also expect to incur new operating expenditures associated with the energy transition and regulatory obligations.

6.1 Overview

Our operating expenditure for Standard Control Services includes the costs of operating and maintaining our electricity network, including our poles, wires and computer systems. These activities include ongoing network maintenance such as inspections, repairs and responding to emergencies, such as trees that have fallen on our electricity power lines. We also perform customer functions like responding to enquiries and responding during emergencies, as well as providing billing information to retailers.

To maintain reliability, we need staff and equipment to respond to faults and emergencies. We also need to continue supporting the development of the network to meet customer requirements and report our compliance with economic and safety regulations. While our customers are concerned with price affordability and fairness, they also want us to focus on and prioritise ongoing service excellence, customer education, digitisation and automation to maintain economic efficiency, network reliability and resilience. Our proposed operating expenditure for the next regulatory period reflects the views expressed by our customers.

As noted in our capital expenditure chapter, climate change, consumer choices, technology, and policy changes have all accelerated the transformation of the energy market in Australia, meaning electricity distribution network service providers like ours constantly need to adapt and innovate in the way we serve our customers, moving electricity to and from their homes and businesses. Similar to the capital expenditure necessary to meet this objective, we will also incur operating expenditure, depending on the initiative being deployed and the required treatment of expenditure.

We propose a total operating expenditure of $623M for the next regulatory period. This is about two per cent lower than the operating expenditure allowance approved by the AER for the current regulatory period and 36 per cent higher than our estimated operating expenditure in the current regulatory period. We consider our proposed operating expenditure to be efficient and would allow us to meet our regulatory obligations and customers' expectations.

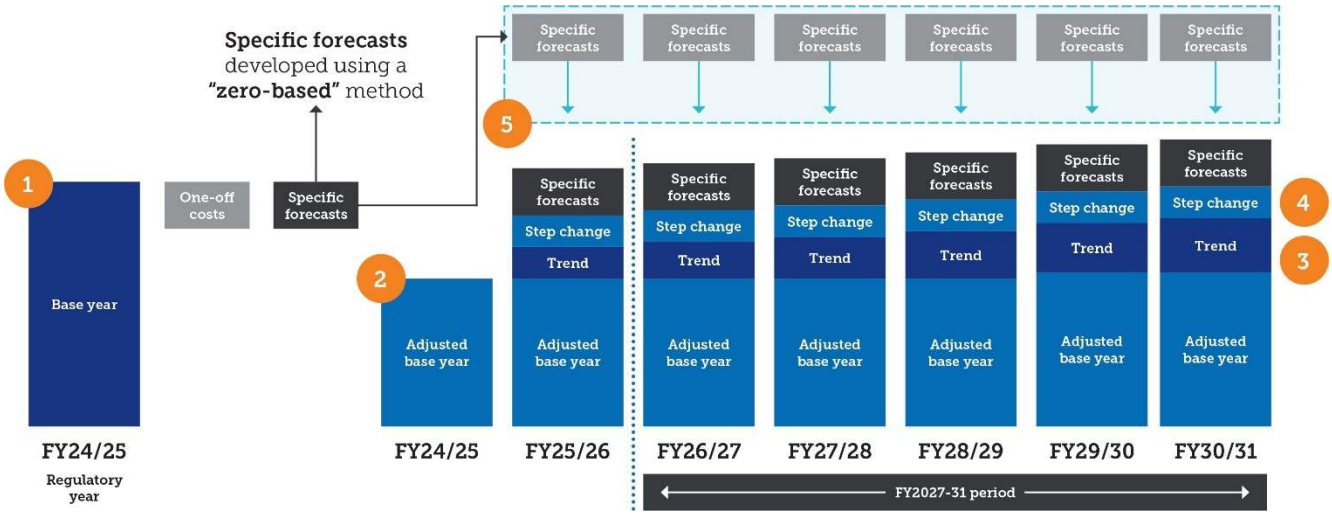
6.1.1 What our customers have told us about operating expenditure

Our customers have told us they want more connections to renewable energy now and in the future. To deliver on this expectation, we must invest in advanced systems to manage more complex operations, communications, and data; we outline this further in Chapter 5. Because some of these costs require expenditure to be treated as operating expenditure, we must include them in our operating expenditure forecast.

6.2 Our method for forecasting operating expenditure

We use the AER's base-step-trend methodology to forecast Standard Control Services (see Figure 6.1). This approach to forecasting operating expenditure is predicated on operating expenditure being relatively stable from year to year but also allows for adjustments for anticipated changes.

Figure 6.1: The AER's preferred operating expenditure forecasting methodology



Our five-step opex forecasting approach

Step 1: Establish the efficient base year

Step 2: Adjust the base year for non-recurrent expenditure

Step 3: Trend the base year forward

Step 4: Adjust the trended base year for step changes

Step 5: Add specific forecasts

First, we establish the efficient base year. We nominate FY25 as our base year, as it is the latest year of actual operating expenditure available at the time of the AER making its final decision for the next regulatory period. It represents the efficient costs necessary to operate and maintain our network and meet regulatory obligations. We exclude from the efficient base year non-recurring operating expenditure and category-specific forecasts, such as government levies, which are not forecasted using a base-step-trend approach.

We then trend our base year forward to account for:

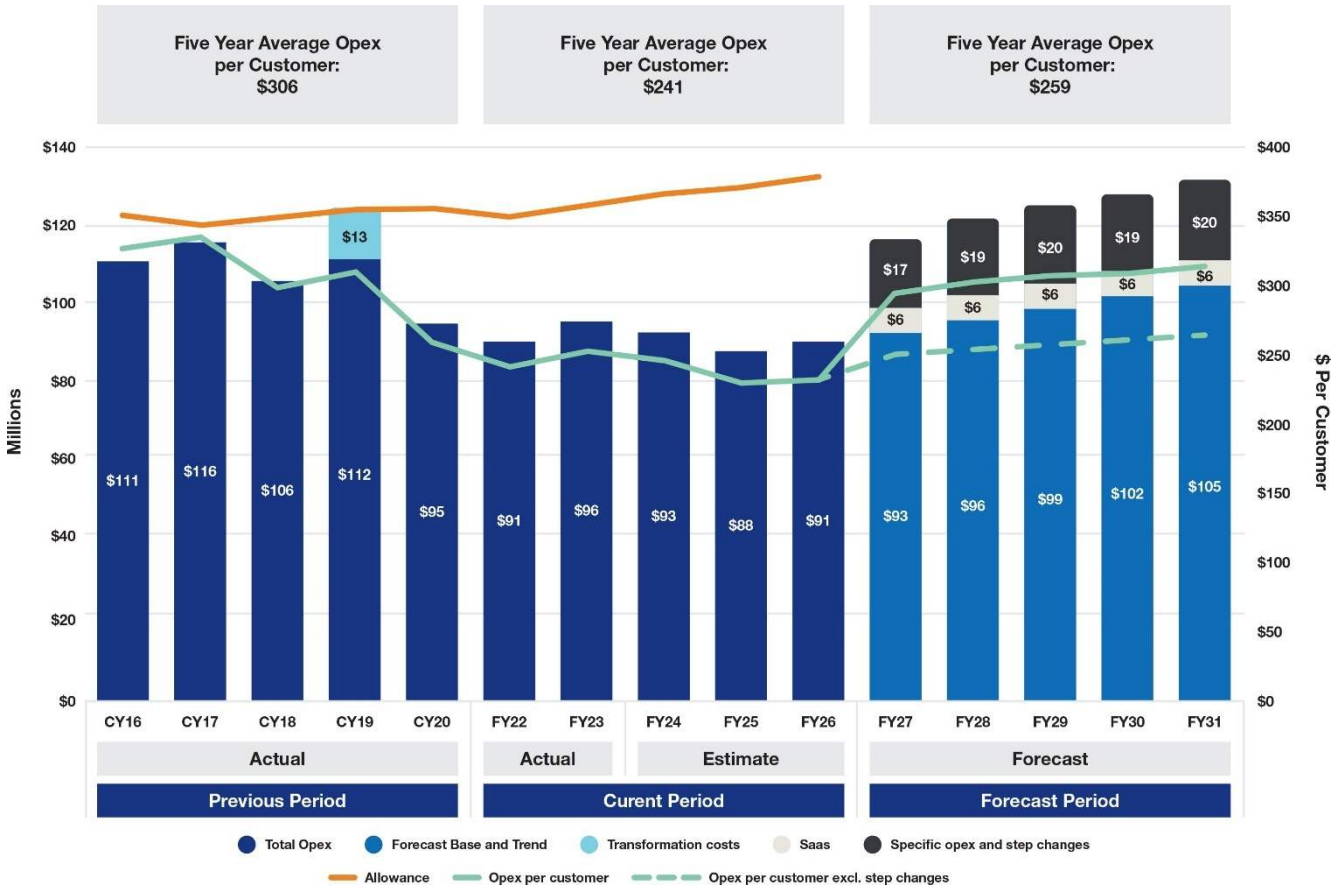
- forecast output growth to ensure sufficient funding for servicing a larger network
- forecast input cost growth to reflect changes in input costs such as labour and materials
- productivity improvements reflecting our ongoing commitment to achieving cost reductions over the next regulatory period.

Lastly, we add step changes and specific forecasts to our operating expenditure forecast. This relates to items for which the base year operating expenditure does not provide a reasonable basis to forecast future expenditure requirements. Step changes normally arise from factors such as new regulatory obligations, costs for services that our customers recommended we should prioritise and other major external factors beyond our control such as those related ICT, network resilience and the energy transition.

6.3 Our forecast operating costs

Using the AER's base, step, trend methodology, our total forecast operating expenditure for the next regulatory period is $623M (including debt-raising costs). This is two per cent lower than the operating expenditure allowance in the current regulatory period and 36 per cent higher than our estimated operating expenditure in the current regulatory period (see Figure 6.2). Our operating costs for the current period are significantly less than the allowance due to operating efficiencies we have achieved from our efficiency program commencing in 2019 and fewer maintenance work during the COVID-19 pandemic. Our base year operating expenditure has reduced by $18M or 17 per cent from the previous period (from $106M in CY18 to $88M in FY25).

Figure 6.2: Historical and forecast operating expenditure, Real $2026, millions



Note: We present a per-customer view excluding step changes to reflect a large portion of costs that were treated as capital expenditures in the previous and current regulatory periods. This allows a like-for-like comparison and demonstrates the sustained efficiency passed on to customers.

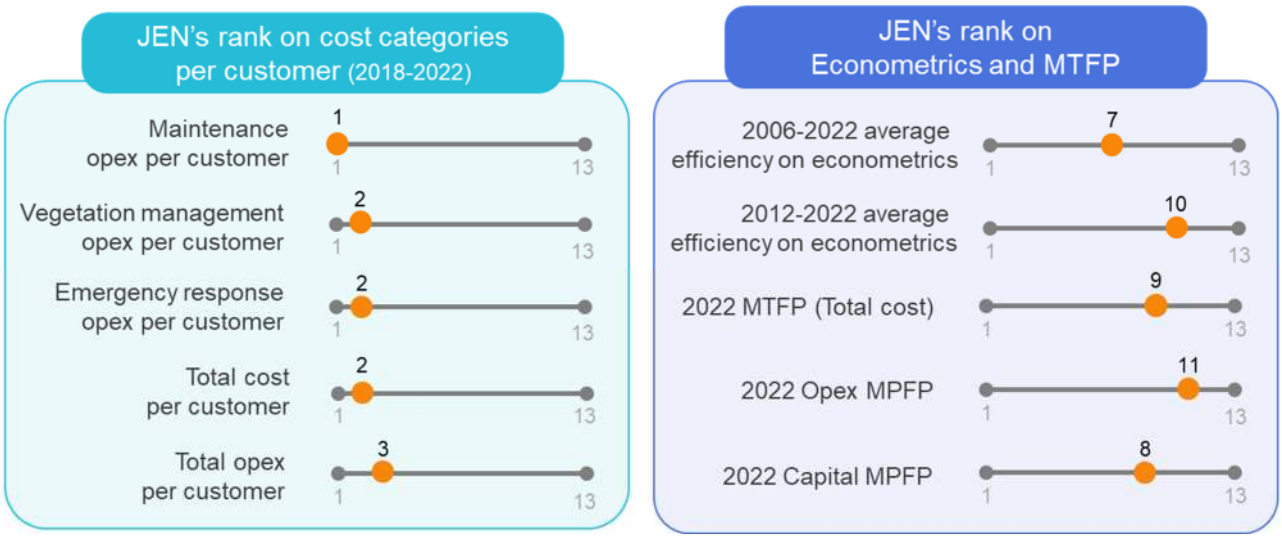
6.4 We benchmark well amongst our peers

The National Electricity Rules requires the AER to have regard to network benchmarking results when assessing capital and operating expenditure and to publish the benchmarking results annually. The aim is to reduce inefficient capital and operating expenditures and to provide consumers with useful information about the relative performance of their electricity distributor.

The AER benchmarks the performance of the electricity distributors against each other every year. They analyse the audited data we provide to them and process it through various econometric models to form a view of each distribution network service provider's relative efficiency.

The AER employs several techniques to undertake its benchmarking analysis. For most methods we rank well amongst our peers, as illustrated in Figure 6.3 below. These techniques include partial performance indicators (PPI), multilateral total factor productivity (MTFP) and econometric cost functions.

Figure 6.3: JEN's benchmark position against our peers



Source: AER 2023 Annual Benchmarking Report – Electricity distribution network service providers – November 2023

Our cost-category PPIs are among the industry leaders. We are also one of the distribution network service providers with high increases in productivity in 2021 and 2022, resulting from lower operating expenditure. When considered in the context of overall operations, we remain an efficient electricity distribution network service providers.

"Keeping costs as low as possible, especially for low-income consumers, is the number one priority. Balancing cost with reliability is crucial to meet the high energy needs of people with disabilities without imposing additional financial burdens."
Disability Customer Voice Group member

6.5 Composition of our forecast operating expenditure

We have developed our forecast operating expenditure based on the base-step-trend approach, which we step through in the following sections.

6.5.1 Setting the efficient base year

We propose to use FY25 as our base year for forecasting the efficient operating expenditure for the next regulatory period. This approach is consistent with the AER's preferred approach. While our audited actual costs for FY25 will not be available in time for the submission of our initial proposal, it will be available when we submit our revised proposal in December 2025. We consider our base-year expenditure to be efficient for the following reasons:

- We are subject to a regulatory incentive framework for both operating and capital expenditure and have responded to these incentives.
- Benchmarking analysis supports the efficiency of our expenditure.

Adjustment of SaaS implementation costs

Using FY25 estimated operating costs of $88M as our base year, we adjust it by re-allocating Software as a Service (SaaS) implementation costs of $6M from capital expenditure to operating expenditure in line with the AER's guidance due to a change in the accounting treatment.[45]

The regulatory changes issued by the IFRS Interpretation Committee in April 2021 have significant implications for the accounting treatment of ICT costs, including SaaS costs. Under the new guidelines, costs associated with configuring or customising SaaS and other software platforms are now classified as operating expenditure when they were previously classified as capital expenditure. Expenses related to software development activities that enhance, modify, or add capability to existing on-premises systems continue to be treated as capital expenditure in relation to intangible software assets. These changes directly impact how we account for ICT-related costs. Specifically, this has led to a significant increase in operating expenditure, which were presented as capital expenditure in the current regulatory period proposal back in FY21.

The change in accounting treatment of SaaS implementation costs does not increase our total expenditure forecast; our capital expenditure forecast reduces accordingly after re-allocating costs to operating expenditures. This ensures that our customers are not impacted by changes in accounting treatments.

45 In April 2021, the International Financial Reporting Interpretations Committee (IFRIC) released a guidance note requiring SaaS implementation costs to be treated as operating expenditure. When the 2022-26 allowances were determined for Jemena in April 2021, these costs were classified as capital expenditure. To ensure our reported actuals and allowances are comparable based on consistent accounting treatments, the AER provided guidance for us to continue applying the old accounting treatment (i.e. capitalising SaaS implementation costs) for the current regulatory period 2022-26 and apply the new accounting treatment from the 2027-31 period. We have adjusted our operating expenditure and capital expenditure accordingly, in line with the AER's guidance for both the 2022-26 and 2027-31 periods.

6.5.2 Trending the base operating expenditure

We trend our base operating expenditure forward for forecast growth in outputs, input prices and productivity for the next regulatory period consistent with the AER's requirements:

- **Forecast output growth** such as forecast increase in customer numbers, ratcheted maximum demand and circuit line length. This adjustment allows us to meet the increased costs of operating our expanding network.
- **Forecast real input price change** such as wages based on independent expert forecasts from Oxford Economics and KPMG. This adjustment ensures that our costs reflect the expected rate of change in labour and other cost components.
- **Productivity improvement** reflects the efficiency improvements or cost reductions we are committing to deliver as a result of increased automation, process improvements and adoption of new technologies. We forecast a 0.5 per cent per annum reduction, which will deliver $8M cost reductions in the next period.

Trend – growth and productivity

We forecast the trend component of our operating expenditure to be $46.1M over the next regulatory period.

In Figure 7.2, the forecast base year operating expenditure and trend-related costs are combined.

6.5.3 Step changes

In addition to the base operating expenditure that funds the regular operations necessary to deliver reliable network services today, we anticipate some incremental costs, referred to as step changes, in the next regulatory period due to new regulatory obligations and operating expenditure/capital expenditure trade-off opportunities and requirements. We propose $88M step changes in total for the next regulatory period. The main contributors are ICT services—largely driven by the IFRS accounting treatment change and cloud computing—and the Victorian Emergency Backstop Mechanism,[46] representing 85 per cent of our step changes.



Step changes

We have proposed the following step changes over the next regulatory period:

- ICT services ($64.4M) which include:
  - $27.2M of future network costs (see Chapter 3)
  - $10.3M of market reform costs (see Chapter 3)
- Emergency Backstop Mechanism ($10.3M)
- Future network initiatives ($5.4M)
- Other regulatory obligations ($4.9M)
- Network resilience & reliability initiatives ($2.6M)

In Figure 6.2, the forecast step changes and costs of raising debts are combined.

ICT step operating expenditure for new projects

The AER defines ICT as all devices, applications, and systems that, together, allow interaction with the digital world.[47] ICT now makes up a significant portion of a distribution network service provider's expenditure, including ours.

46 The Victorian Government's Emergency Backstop Mechanism will help to manage system security by enabling rooftop solar systems to be turned down or switched off completely when there is too much power being exported to the electricity network. This will ensure that solar exports can be safely managed.

47 AER, Non-network ICT capex assessment approach, November 2019, p. 5.

Treatment of ICT expenditure

We manage a wide range of ICT projects within regulatory frameworks and accounting standards. The expenditure treatment of these is determined by various factors, including the types of systems deployed and the expenditure cycles of each system. The diagram below summarises this.



The operating expenditure classification for each of these differs:

- Non-recurrent operating expenditure is treated as a step change
- Recurrent operating expenditure—from regulatory period to regulatory period—comes from our base expenditure

For the large non-recurrent projects completed in the next regulatory period—which may be new systems or long-cycle upgrades—we will incur ongoing recurrent expenditures to support those systems. However, unlike recurrent expenditures in the current regulatory period, this category of expenditure is treated as a step change until the end of the next regulatory period.

We are proposing ICT recurrent step operating expenditure for the next regulatory period for several reasons:

- **Integration of new digital capability into the network and dynamic operations.** When implementing new systems, we often need to employ additional human resources and licencing to support the ongoing operational activities; this type of expenditure is known as incremental ICT recurrent operating expenditure. These non-recurrent projects are necessary to ensure that our systems remain fit for purpose in a constantly changing technology and network environment where our customers' requirements and expectations continue to evolve. They relate to increasing the data, analytics, systems, and cyber security capabilities required to support our network and the integration of renewable energy.
- **Market Reforms.** When the Australian Energy Market Operator modifies its systems or the Australian Energy Market Commission issues changes to the National Electricity rules, we need to invest in our ICT systems to comply with the changes. Several current reforms we are considering include Flexible Trading Arrangements, IDAM, IDX[48], portal consolidation and Integrated Price Responsiveness.
- **Services shifting from on-premises to cloud-based**. We note the significant shift by users and software vendors away from on-premises systems to cloud computing services. This means that systems and platforms are hosted and maintained by the vendor, and their customers access them via a subscription rather than purchasing a license. Along with the recent changes to interpreting IFRS—which introduced changes that limit what ICT projects can be recognised as assets (capital expenditure)—this has generated a large increase in operating costs that used to be recorded as capital expenditure.

The incremental ICT recurrent costs relate to maintenance, licensing fees, support and ongoing operational activities required to sustain the benefits or functionality delivered by these new projects. They reflect accepted good industry practice, new regulatory obligations and/or external factors outside our control.

More information on these systems and changes can be found in Chapter 6 of our Draft Plan.

48 IDAM – Identity and Access Management, IDX – Internet Data Exchange.

Victorian Emergency Backstop Mechanism

As Victoria progresses to its legislated net zero emissions goals, increasing penetration of variable distributed photovoltaic systems[49] has seen record minimum operational demand levels and, subsequently, an increasing risk of minimum system load emergency events in our state. When minimums get too low, the electricity system is at risk of collapse. In response, the Victorian Government has designed and mandated the Victorian Emergency Backstop Mechanism (VEBM). The VEBM requires that all new and replacement DPV systems connected to Victorian distribution networks can be remotely interrupted or curtailed when the relevant electricity distributor is directed by the Australian Energy Market Operator.

The step-change relates to the ongoing costs of delivering the VEBM capabilities from 1 July 2026 onwards. Whilst the VEBM is a government-mandated obligation on electricity distributors, establishing the VEBM capability will deliver benefits to our customers by:

- enabling continued uptake of PV generation, allowing customers to lower their electricity bills through self-consumption of their self-generated electricity, and
- continuing to provide a safe and secure supply that benefits all customers through the effective management of grid stability by the Australian Energy Market Operator.

Future network initiatives

Our proposed step changes for future network initiatives relate to the following:

- Strategic Network Analytics Platform (SNAP) – A project will create a strategic platform for analytics, model serving, data integration and other use cases using a modern data lake house, network model, streaming platform and associated application programming interface (API) services to provide foundational capability across the business.
- Variable Voltage Converter (VVC) - The VVC will dynamically and automatically adjust network voltages to maintain compliance with the EDCoP standards during increased solar export to the network.
- Networks analytics – This program will deliver new network analytics applications (such as CER forecasting tool, the Department of Energy, Environment and Climate Action data & visibility trial, and wrong connections detection) to improve the operational management of the network. These new data and analytics driven applications will improve regulatory compliance, customer safety, and operational planning during the energy transition. It will reduce the future growth of operating expenditure required to manage the network in response to the growth of CERs.
- Grid stability - Implementation of a basic DERMS solution for curtailing CER such as PV installations on demand to meet the Victorian Government's emergency backstop mandate.
- Key drivers are our future network strategy and customer expectations about ensuring that we can connect our customers to renewables and accommodate more customer energy resources into our network without affecting its reliability (see Chapter 3 for more details). The ongoing operating cost of VVC, SNAP Foundations and Network Analytics is a material change in our operating expenditure requirements.

Regulatory obligations and Victorian Government and customer expectations on network resilience

We propose a step change for the Coolaroo REFCL annual validation testing. The REFCL was installed and tested in 2023-24; the proposed step change is for the annual testing as part of a new obligation under our bushfire mitigation plan. We are also proposing a step change for the management of hazardous trees in Low Bushfire Rated Areas (LBRA). We currently have a program for High Bushfire Rated Areas and plan on introducing management of hazardous trees in these LBRA. We are proposing to increase response to customer expectations of our network for communities in the LBRA.

Overall, we believe that our forecast operating expenditures represent the level of funding necessary to achieve the requirements under the NER, efficiently meet our obligations and customers' expectations, and promote their long-term interests.

49 Referred to as relevant embedded generating units in the VEBM Orders. GG2024S031.pdf (gazette.vic.gov.au)

Summary

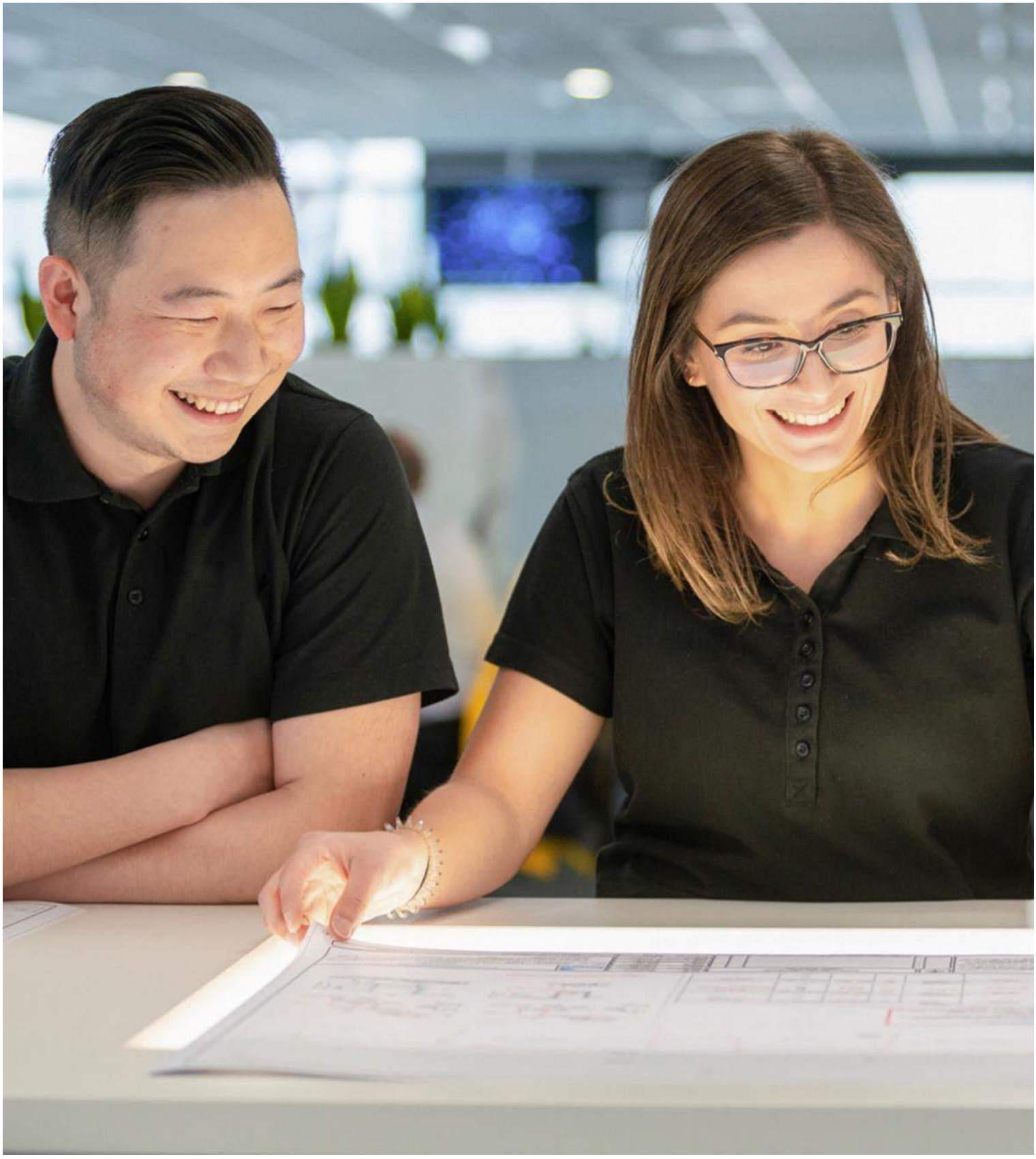
We consider our forecast step changes to be based on prudent and efficient solutions. They are based on detailed assessments of credible options that can address the need to provide reliable and safe services in a changing environment and meet customer expectations. In addition, our forecast step changes are consistent with our customers' recommendations, priorities and expectations that we:

- prioritise digitisation and automation to increase economic efficiency
- use the latest technology to provide ongoing customer service excellence
- undertake innovative approaches, use digitisation and automation technology and advanced monitoring equipment for determining replacement/upgrading of wires
- commit to environmentally sustainable operations
- champion the use of renewables and energy storage to help reduce network and customer costs
- prioritise investment in network resilience to recover from and withstand extreme weather events.

Questions for your consideration

- What do you think about our proposed operating expenditure for the next regulatory period?
- Are there other concerns or expectations that we have failed to account for in our forecast?
- Do you have other suggestions in relation to our forecast operating expenditure for the next regulatory period?

7. Incentive schemes



Highlights

- We believe efficiently designed financial incentives for distribution network service providers are in the long-term interests of our customers. They encourage us to be innovative and find ways to spend below our regulatory allowances, leading to reduced prices for customers in the long term.
- We propose to retain the incentive schemes used in the current regulatory period and apply some modifications to the capital expenditure sharing scheme for both the current and next regulatory periods. We consider that expenditure incurred for reasons beyond our reasonable control should not be included in the efficiency assessment of incentive schemes.
- We also propose to introduce a customer service incentive scheme to promote stronger customer service.

The AER applies a range of incentive schemes to electricity distribution network service providers. These schemes incentivise us to operate efficiently, reduce costs, innovate and improve service outcomes for our customers. The incentive schemes are set in a way to balance the tensions between service levels and reduce expenditure.

We propose the following incentive schemes to be applied in the next regulatory period:

1. **The capital expenditure sharing scheme (CESS)** incentivises us to be more efficient by rewarding us when we underspend capital expenditure allowances and penalising us when we overspend. The rewards or penalties are shared with our customers:
   a) For underspending, 30 per cent benefit up to 10 per cent underspent of capital expenditure allowance, and then 20 per cent benefit thereafter
   b) For overspending, distribution network service providers will incur a 30 per cent penalty.

   Our consumers benefit from improved efficiencies through a lower regulatory asset base, which is reflected in lower network prices in subsequent regulatory periods. In addition to applying the CESS scheme, we propose removing net connection capital expenditure from its calculation—in both the current and next regulatory periods—to account for non-controllable expenditure.
2. **The efficiency benefit sharing scheme** (**EBSS**) incentivises us to deliver ongoing improvements to operating expenditure efficiencies relative to the regulatory allowance in a given regulatory period. Any savings we make are shared with our customers; the sharing ratio varies depending on a range of technical factors. However, it is approximately 70 per cent (customers), 30 per cent (Jemena) and roughly in line with the CESS. Our consumers benefit from improved efficiencies through lower operating expenditure in subsequent regulatory periods.
3. **The service target performance incentive scheme (STPIS)** incentivises us to maintain and improve network reliability performance to the extent that our customers are willing to pay for such improvements. It seeks to ensure that our service levels do not deteriorate because of incentive rewards to pursue efficiency gains under the CESS and EBSS.
4. **The demand management incentive scheme (DMIS)** provides a financial incentive to undertake efficient expenditure on non-network solutions to manage peak electricity demand. Reduced peak demand may defer investments in network solutions, leading to lower electricity bills for consumers.
5. **The demand management innovation allowance mechanism (DMIAM)** complements the DMIS by providing an annual allowance for research and development in demand management projects that may reduce long-term network costs.

Victorian electricity distribution network service providers will also have the option to propose a Customer Services Incentive Scheme **(CSIS)**. This incentive mechanism seeks to share the benefits between networks and customers for the relative performance of several activities related to the delivery of good customer service. We will propose this incentive mechanism for the next regulatory period.

7.1 We propose to retain our current incentive schemes

In 2023, the AER concluded that current incentive schemes have driven significant improvements in distributors' performance through efficiency gains, which reduces prices and outages over time. It found that:

> *Operating expenditure of Australia's energy network businesses is 30 per cent lower today than it was 10 years ago, and capital expenditure is 50 per cent lower, contributing to significant reductions in network charges.*[50]

We agree and consider that the incentive schemes have played a strong role in achieving this outcome.

We propose to retain our current incentive schemes during the next regulatory period. We consider ongoing efficiencies to be in the long-term interests of our customers, and these can be best achieved with incentives. Nevertheless, we propose several changes to the regulatory approach, which are outlined below.

7.2 Capital Efficiency Sharing Scheme

To calculate the CESS reward or penalty, we take the difference between the allowed and actual capital expenditure within a regulatory period and then apply an incentive rate. The CESS amount is then incorporated into the allowed revenue for the following regulatory period.

We anticipate exceeding the AER's approved capital expenditure allowance in the current period (as outlined in Chapter 5). This is due to unprecedented growth in the number of data centres and other large customers seeking to connect to our network. The volume and size of large customer connections were unforeseen and were not included in our capital expenditure allowance for the current regulatory period. Consequently, Jemena could incur a significant CESS penalty due to the overspending caused by higher connection volumes.

Given the unforeseen size and volume of these connections, it is important for Jemena that the CESS be modified to remove connection-related capital expenditure for the current period actual and allowance amounts. Incurring penalties for connecting more customers disincentivises efficient investments and is not in the long-term interests of customers. Connecting additional customers to our distribution network benefits all existing customers by spreading the largely fixed network costs across a larger customer base, thereby reducing the average cost per customer and lowering future bills. In addition, new connecting customers are required to make an upfront contribution which ensures that our existing customers do not pay more than they would without the addition of new customers.

If the connection-related capital expenditure is not removed, Jemena could incur a $40M penalty depending on the volume of connections for no reason relating to spending efficiency.[51] This is equivalent to 13 per cent of our current regulatory period annual average revenue. To preserve the incentive for the distribution network service provider to continue connecting new customers, we propose excluding the connection capital expenditure in both the allowance and actual amounts in the CESS assessment. This would protect both our customers and Jemena from rewards or penalties driven by unforeseen variations in connection volumes that are beyond our control. It would also ensure that the CESS continues to reflect cost efficiencies rather than uncertainties inherent in forecasting.

Excluding connections capital expenditure would reduce the CESS penalty for Jemena from $40M to $9M.

Another option available to Jemena is to apply to reopen the current regulatory period determination and seek a higher capital expenditure allowance. Our preferred approach for our Draft Plan is to remove connection-related capital expenditure, which will reduce the CESS penalty rather than increase the capital expenditure allowance and revenue requirement for the current period through a reopener.

50 AER, Review finds incentive schemes drive energy network efficiency up and expenditure down | Australian Energy Regulator (AER).

51 In deriving the CESS outcome, we have incorporated our proposed cost passthrough events into the capital expenditure allowance and estimated costs. This approach ensures that both the allowances and the actual/estimated costs are consistently reflected in the CESS amount on a like-for-like basis. Additionally, it prevents the CESS penalty from being overstated due to anticipated cost pass through events.

7.2.1 We propose an update to the CESS

The incentive schemes are designed to give flexibility to distribution network service providers to operate within the total capital expenditure allowance over the subsequent regulatory periods. This encourages distribution network service providers to find innovative and efficient solutions to deliver services to customers and to maximise potential savings. However, when faced with non-controllable items such as new connection volumes, distortions in the incentive framework can arise. We believe these non-controllable components should be excluded from the assessment of incentive schemes.

Consequently, for the next regulatory period, we propose to continue applying the CESS. However, we propose to make changes to the scheme's operation to account for non-controllable factors that we are exposed to and to ensure consistency with the remaining elements of the regulatory framework.

7.2.2 New connection capital expenditure should be excluded from the CESS

Under the National Electricity Rules, Jemena and other distribution network service providers must issue customers with a connection offer if they seek a connection.[52] While Jemena forecasts the volume of connection services that will be required in our regulatory proposal, the actual volume of connection services required cannot be predicted with certainty, particularly in the outer years of a regulatory period.

The overarching objective of the CESS is to set incentives for distribution network service providers—such as Jemena—to undertake only efficient capital expenditure during a regulatory period.[53] Whilst we agree with this objective, we consider the CESS should be limited to the part of our capital expenditure program that is within our control. Because of the obligation to offer connections and the extreme growth experienced in our distribution area, we propose that connections capital expenditure be excluded from the CESS. Our proposal will ensure symmetry between the exclusion and inclusion of controllable capital expenditure when calculating rewards and penalties. It also aligns with EBSS where non-controllable components (i.e. specific category forecasts) are excluded from the EBSS assessment.

7.2.3 We propose changes to the data used in the CESS calculation

To derive actual net capital expenditure, we take gross capital expenditure and deduct the amount of money received from large customers who pay to connect to our electricity distribution network (capital contributions). However, there is a timing difference between recording gross capital expenditure and recognising capital contributions, and this can distort the CESS calculations (see Figure 7.1). This has been highlighted due to the significant increase in the number of major connection customers seeking to connect.

In Table 7.1 we outline the different approaches adopted by the AER in different sections of the regulatory framework to record gross capital expenditures and capital contributions.

Table 7.1: Approaches to record gross capital expenditure and capital contributions

	Regulatory Reporting (1)	Regulatory modelling(2)
Gross capital expenditure	As incurred	As incurred
Capital contributions	When the site is energised	As incurred

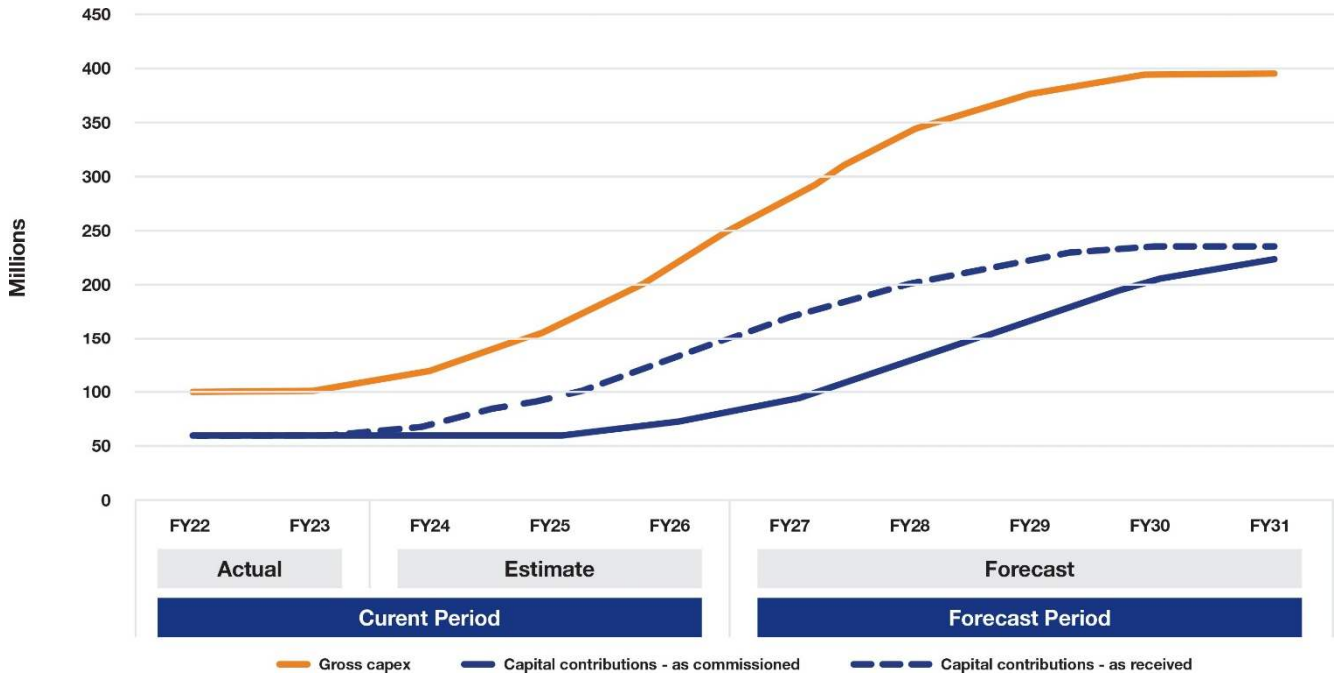
Notes:

(1) reported to the AER in Regulatory Information Notice responses.
(2) regulatory modelling, including the RAB roll forward model.

Sometimes the lag between receiving the payment (upfront) and energising the customer site (at the end of the process) can take several years for large customers. This timing difference contributes to higher CESS penalties, particularly where there is a higher growth in new connections, as has been the case for Jemena. Figure 7.1 below demonstrates the lag effects of recognising capital contribution under each approach.

52 NER, Chapter 5A, part C.
53 AER, Capital Expenditure Incentive Guideline for Electricity Network Service Providers, 28 April 2023.

Figure 7.1: Historical and forecast gross capital expenditure and capital contributions, Real $2026, millions



7.3 Efficiency Benefits Sharing Scheme

The EBSS has been in effect for the past five regulatory periods, delivering long-term benefits to customers. Given its success, we propose to continue the scheme to complement the CESS and STPIS.

As outlined in Chapter 6, we have spent less than the AER-approved operating expenditure allowance for the current period. As a result, we forecast a total EBSS carryover of $36M over the next regulatory period. Our customers' share of the EBSS carryover will be reflected in the next period through a reduced base operating expenditure.

7.4 Other Incentives

The rewards available under the DMIS and DMIAM incentive schemes are lower when compared to the CESS, EBSS and STPIS. The AER has granted Jemena a DMIAM allowance of $2M for the current regulatory period. Our DMIAM projects include a dynamic electric vehicle charging trial and a community battery trial, amongst others. As of 2022-23, we have incurred around 20 per cent of the allowance. Under the scheme, any unspent DMIAM allowance will be returned to our consumers through a lower revenue allowance in the next regulatory period.

The total incentive under the DMIS in any year cannot exceed 1 per cent of the distributor's allowed revenue for that year. We do not have any DMIS projects during the current regulatory period.

7.5 We propose a customer service incentive scheme

In July 2020, the AER published a CSIS[54] to encourage electricity distribution network service providers to engage with their customers and provide customer service in accordance with customer preferences. The CSIS sets financial incentives for distribution network service providers to perform against a range of different customer service targets. It is up to distribution network service providers to develop CSIS proposals to be applied during a regulatory period. To date, we are the only Victorian electricity distributor that has not proposed a CSIS.

Currently, our only customer service measure exists under the STPIS, which is our telephone answering (fault-line) performance. Under this incentive, this parameter has a maximum risk/reward of +/- 0.5 per cent of revenue depending on our performance against the set target.

When engaging with our customers recently, they made several recommendations related to customer service and the provision of ongoing service excellence by:

- Ensuring ongoing service standards to our customers in delivering services across the network
- Ensuring excellence at all levels, benchmarked with our peers
- Focusing on KPIs that are transparent, monitored, tracked and communicated publicly
- Providing opportunities for feedback and performing internal reviews to identify opportunities for improvement to service standards.

With this Draft Plan, we consider it timely to include other customer service measures to incentivise improvement in our customer service, to better meet customer and community expectations. We have considered more than 30 candidates for customer service measures using the following criteria:

- the importance to our customers
- we have measurable historical data to develop a target
- we can respond effectively to the signal
- any trend risk (possible known or unknown events that may affect the baseline data)
- can be clearly defined
- any interactions with other incentives/measures.

Our analysis shows that our customer satisfaction score (**CSAT**) for new connections, unplanned outages and SMS outage notifications are good measures under our criteria. We also propose to bring the fault-line telephone answering incentive into the CSIS. Therefore, we are proposing a CSIS measure that comprises the following measures and weightings:

- CSAT unplanned outages (25 per cent)
- CSAT new connections (25 per cent)
- SMS outage notification performance (25 per cent)
- Fault-line telephone answering (25 per cent)

Under the CSIS, we propose a maximum risk/reward of +/- 0.5 per cent of revenue.

In July 2024, we presented and discussed the CSIS design, including the measures and weightings, with our Energy Reference Group. The group provided a range of advice and feedback on the approach and assessment criteria, taking into consideration the long-term interests of customers. Feedback from the group on weightings was incorporated into the design to best reflect customers' expectations on how we measure customer service. The group endorsed our approach to the CSIS and recognised that it aligns with customers' expectations to incorporate accountability measures and benchmarking into our customer service, as well as other Victorian electricity distribution network service providers' approach to a CSIS.

Questions for your consideration

- What do you think about new connections being included under the current CESS?
- What are your views on our proposal to:
  - exclude new connections volumes from the CESS
  - calculate the CESS using the same method to calculate the other elements of the building block approach?
- What do you think about our proposed CSIS measure and weightings?
- Do you have other suggestions on what CSIS measures are important for you?

54 AER, Review of incentive schemes for networks – Final decision, April 2023.

8. Our revenue requirement and what it means for our customers



Highlights

- We forecast a total revenue requirement for our standard control services of $1,861M over the next regulatory period, a 20 per cent increase from the current regulatory period. This revenue requirement will be recovered from all our customers receiving standard control services.
- Customers' distribution charges are forecast to decrease by an average of two per cent in 2026-27 and remain flat for the remaining years of the next regulatory period in real dollar terms.
- Despite the increase in our forecast revenue requirements, prices are forecast to decrease due to an even greater increase in forecast energy demand for the next regulatory period.
- Our forecast revenue requirements reflect our customers' expectations on affordability, network reliability and resilience, digitisation and automation, sustainable future, accessible communication and fairness.

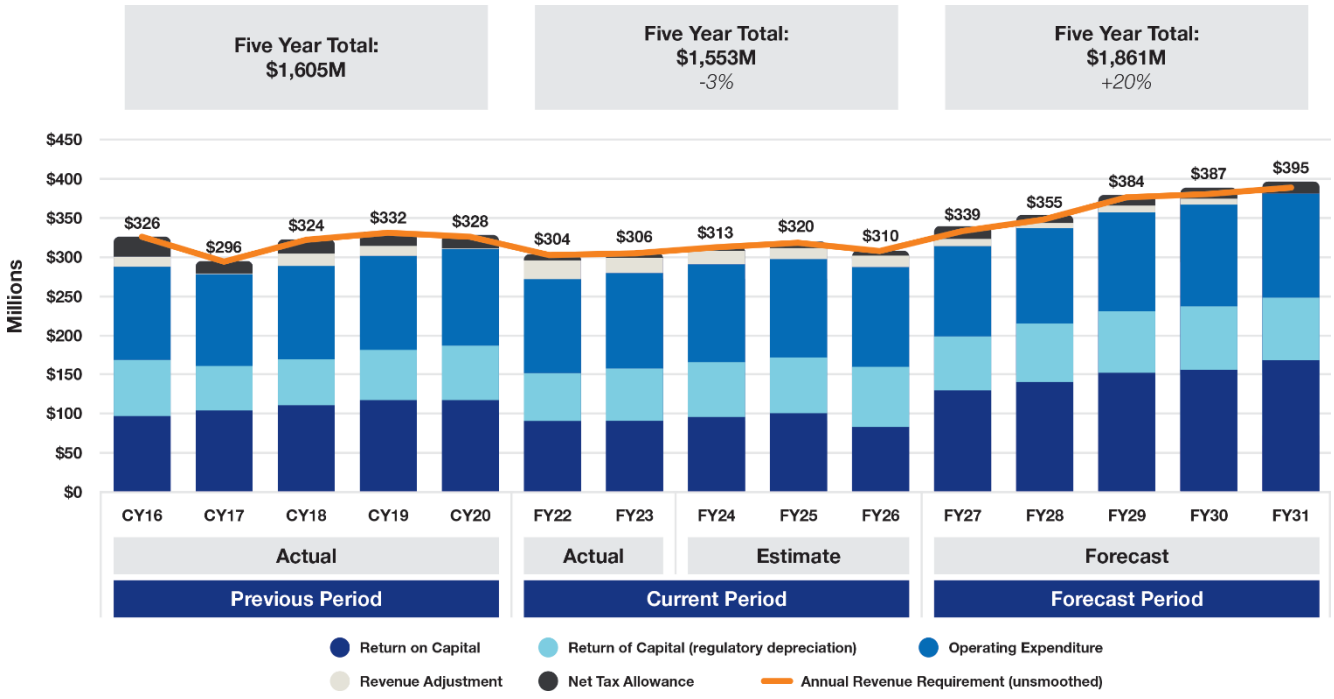
8.1 Our revenue requirement and price impacts

As a regulated business, we are required to estimate the revenue we will need to cover the costs of providing Standard Control Services, including future investments and a return to our investors.

We forecast that we will need $1,861M in revenue over the next regulatory period, a 20 per cent increase from our revenue requirement for the current regulatory period. Key drivers for the increase are our proposed investments to connect new customers, improve network reliability and resilience, accommodate forecast entry of CER (rooftop solar, EVs and batteries) through digitisation and automation and provide ongoing service excellence to our customers. These initiatives are consistent and in response to our customers' feedback and recommendations, as detailed in Chapter 2.

Figure 8.1 below shows our historical and forecast revenue requirement for the next regulatory period. Annual revenue requirements vary from year to year due to lumpy capital expenditure. To avoid volatility, we smooth our revenues to provide a more stable trend, which helps avoid price shocks and volatility for our customers and provides certainty.

Figure 8.1: Total revenue requirement, Real $2026, millions





Price impacts

We receive this revenue from our customers' electricity retailers by charging distribution tariffs.

Affordability remains our customers' top concern. We are able to deliver a reduction in distribution charges by an average of two per cent reduction in distribution charges in 2026-27 and keep the average price flat from 2027-28 until the end of the next regulatory period (excluding inflation), despite the increase in our forecast revenue for the next regulatory period. Our proposed price reduction was enabled by an increase in load from data centres, major connections and increased consumption from existing customers as they move from using gas to electricity.

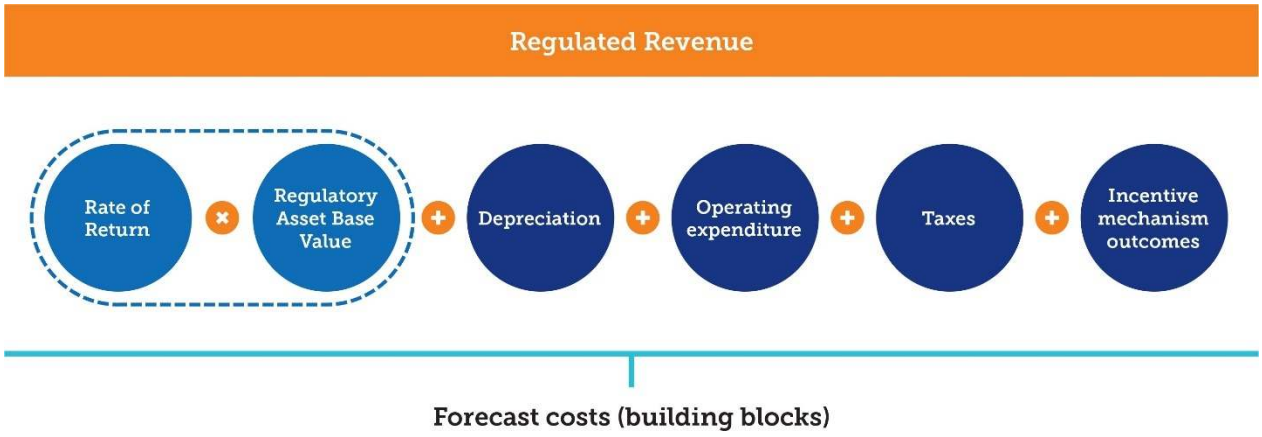
"The most important thing for us is how much we can save on our non-negotiables (electricity, gas). Need to see the price change and come down." Small business customer

Below, we outline how we estimate our revenue requirements for our Standard Control Services. Our revenue requirement for metering services is outlined separately in Chapter 10.

8.2 What comprises our revenue requirement

We calculate our required revenue to deliver our Plan for the next regulatory period using the AER's standard building block approach, as illustrated in Figure 8.2 below.

Figure 8.2: The revenue building blocks

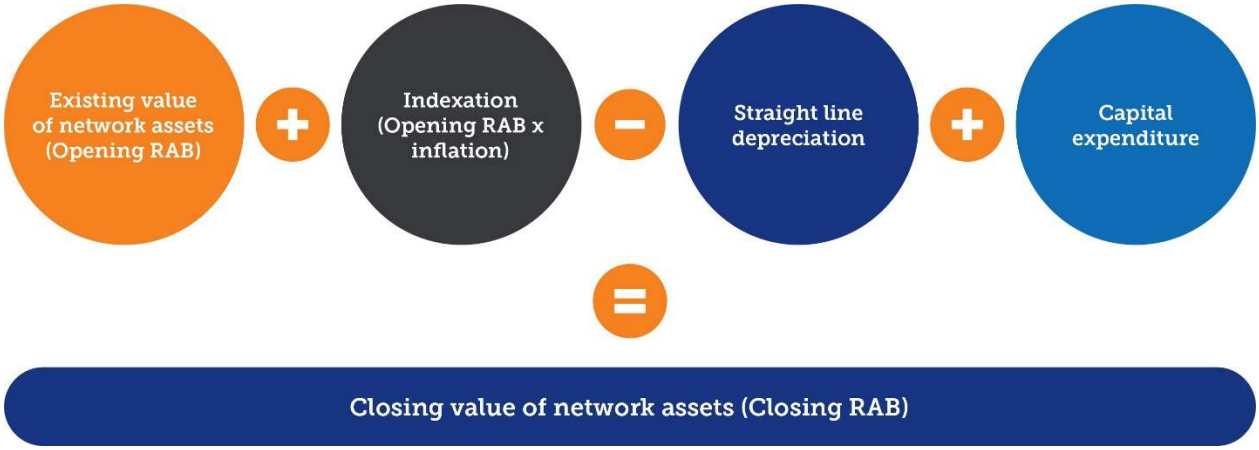


We derive our proposed revenue for the next regulatory period by adding the above building blocks, which we outline below.

8.2.1 Return on capital

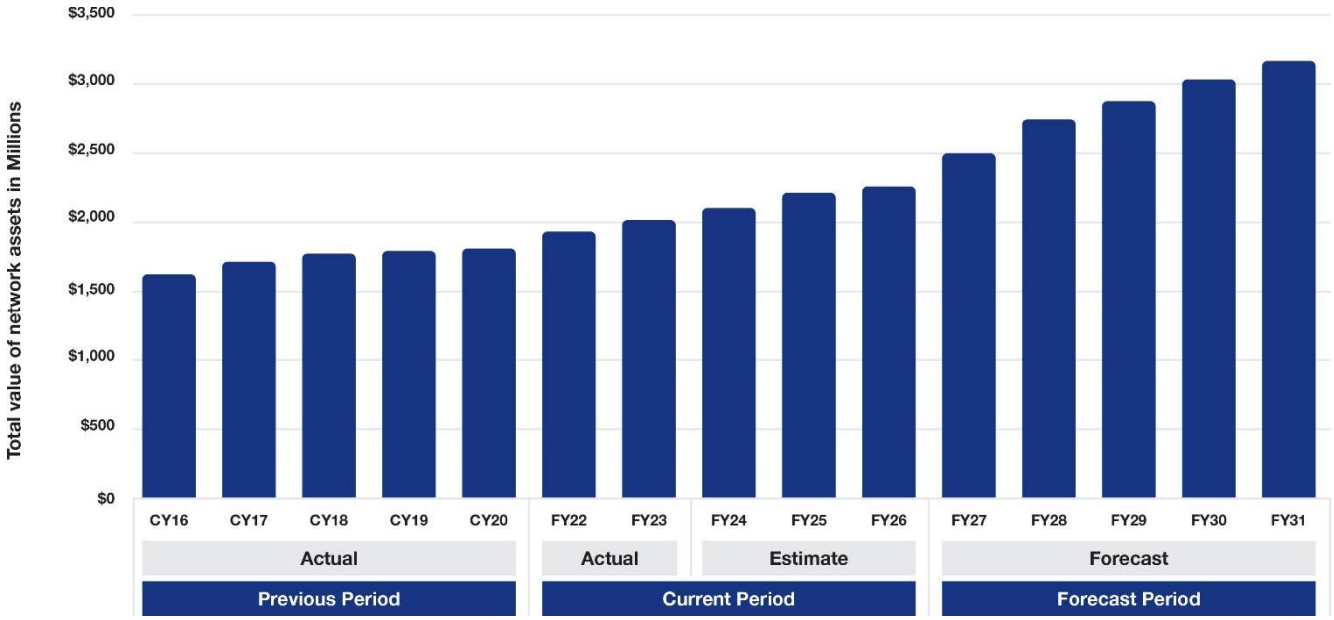
Our Regulated Asset Based (RAB) is the total value of our assets used in providing distribution services. This value represents the as-yet unrecovered capital investment we have made in the past to provide services to our customers now and in the future. The value of the RAB changes over time. It increases with every investment in new assets and falls as we depreciate existing assets over time. We also adjust the RAB for inflation in accordance with standard regulatory processes. Finally, when customers make capital contributions to these assets[55] or we dispose of them, the proceeds are subtracted from the overall value.

Figure 8.3: How the RAB is calculated



We estimate that the value of our asset base at the start of the next regulatory period will be $2.25B and that it will increase to $3.2B by the end of the period (**Figure 8.4**). This increase is mainly due to new capital expenditure investments over the next regulatory period.

Figure 8.4: Network RAB trend, Real $2026, millions



55 See Chapter 5 for an explanation of capital contributions.

Rate of return

The rate of return represents the return our investors require to fund the investments in our network. The RAB is, in effect, the outstanding balance of money we owe to those who financed our capital expenditure. Therefore, the rate of return covers the cost of borrowing that money. For the next regulatory period we have estimated the rate of return based on the AER's 2022 Rate of Return Instrument as outlined in Table 8.1.

Table 8.1: Calculating the rate of return

Parameter	Proposal
Equity beta	0.60
Market risk premium	6.20%
Risk free rate (placeholder)	4.42%
Return on equity	8.14%
Return on debt (5-year average)	4.07%
Weighted cost of capital (5-year average)	**5.70%**

8.2.2 Depreciation or return of capital

We do not recover our capital expenditure in the year we incur it because of its lumpiness and because the benefits of the deployed assets are delivered over many future years. Instead, we recover these costs over the economic life of these assets. This recovery of investment is referred to as a depreciation or return of capital. It represents the annualised cost of our capital expenditure. We calculated this allowance using an approach that is consistent with the National Electricity Rules and also the AER's standard regulatory models.

8.2.3 Operating expenditure

Operating expenditure is a significant part, about a third, of our building block revenue. We provide our operating expenditure forecast in Chapter 6.

8.2.4 Incentive scheme arrangements

The AER applies a range of incentive schemes to electricity distribution network service providers. As a result of our performance against these incentives, we will either receive a reward or penalty in our revenue. For some schemes, the reward or penalty is received within a regulatory period for other schemes, the rewards and penalties are recovered in the next regulatory period. We have outlined our incentive schemes in Chapter 7.

8.2.5 Corporate income tax

This allowance represents what we forecast our income-tax liabilities will be over the next regulatory period. The amount of corporate tax allowance is estimated by multiplying the corporate tax rate by taxable income and accounting for imputation credits as per the AER's rate of return guideline.

8.2.6 Proposed shared-asset revenue reduction

A small number of assets we use to provide regulated services are also used to provide unregulated services, such as lease revenue derived from telecommunications companies that use our poles to attach telecommunications equipment. The adjustment for shared-asset revenue reflects the benefits we and our customers received from these assets over the current regulatory period.

Questions for your consideration

- Overall, do you consider that our forecast revenue requirement strikes the balance between our customers' expectations on affordability and prioritising investments that will help us improve and maintain network reliability and resilience, accommodate forecast export from customer energy resources and provide ongoing service excellence to our customers?
- Do you have other views or suggestions in relation to our forecast revenue requirement?

9. Our tariffs and charges





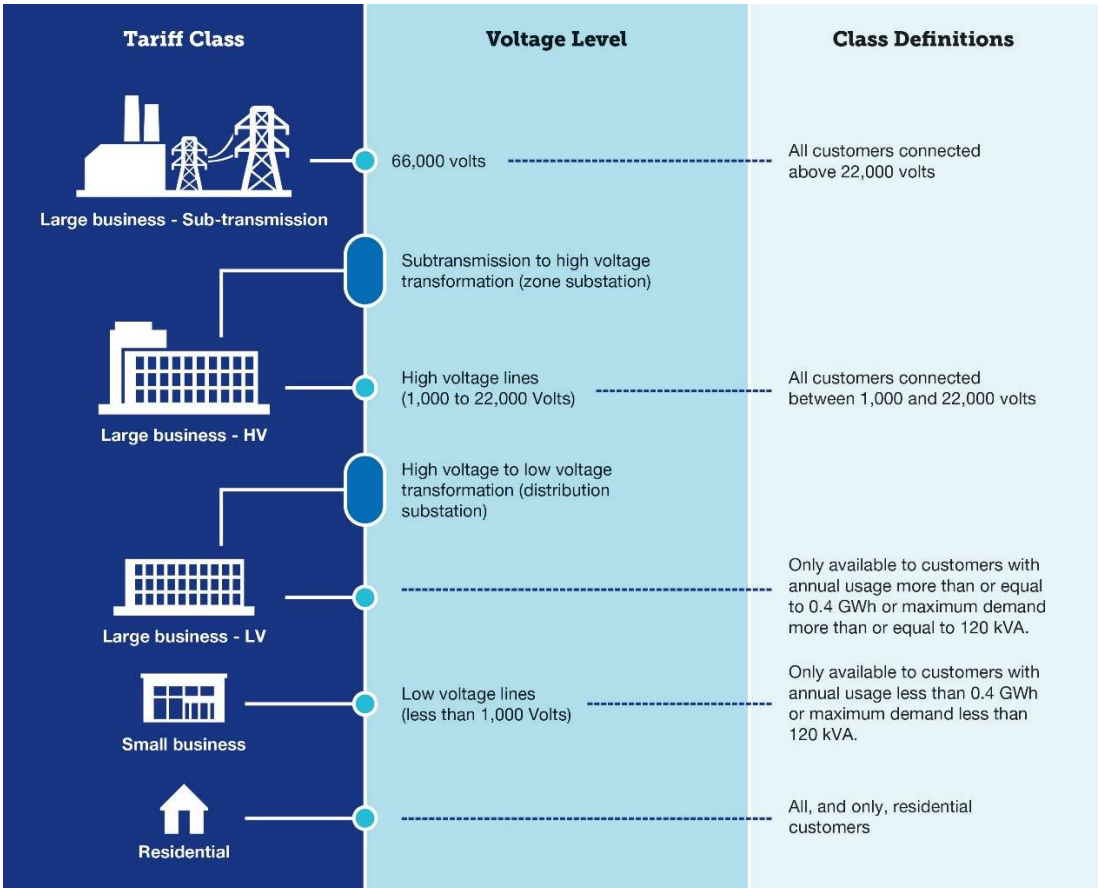
Tariffs are the fees and structures we use to pass pricing signals and to recover our costs from customers. We recover our allowed revenue from electricity retailers through network tariffs, electricity retailers recover these costs through the charges they levy on their customers through retail bills. To a large extent, our tariff strategy relies on retailers passing on our pricing signals in their charges to end customers.

9.1 Our tariff structures

We offer Standard Control Services tariffs to our customers through five tariff classes which correspond with our five major customer segments.

Figure 9.1 shows these tariff classes and their respective definitions:

Figure 9.1: Current regulatory period tariff classes



Within each tariff class, we have multiple tariffs available to meet the varying needs and characteristics of our customers. For example, our residential tariff class includes single-rate and time-of-use tariffs, allowing customers to choose their preferred charging structure depending on their circumstances.

Tariff components

Each tariff offered is composed of several components:

- **Fixed charge:** daily supply charge in *dollars per day ($/day)*. A fixed charge is applied to all of our customers.
- **Consumption (single rate) charge:** the price for consuming electricity remains the same at all times of day, charged in *cents per kilowatt-hour (c/kWh)*. This charge applies to our residential and small business customers on flat-rate tariffs.
- **Consumption (peak and off-peak) charge:** the price is higher for consuming electricity during network peak demand times and lower outside of peak times, charged in *cents per kilowatt-hour (c/kWh)*. Peak and off-peak tariff components apply to all customers who do not have flat-rate or single-rate tariffs.
- **Demand (kW *or* kVA):** charge on the maximum demand (rate of consumption of electricity) during peak times and charged in *dollars per kilowatt ($/kW)* or *dollars per kilovolt-ampere ($/kVA)*. This charge applies to our residential and small business customers who are on demand tariffs, as well as all large business customers.
- **Summer Demand Incentive Charge (SDIC):** demand charge levied during the evening peak (4pm-7pm), charged in *cents per kilovolt-ampere per day (c/kVA/day)*. This applies to all of our large business customers during the hottest months of the year, December to March.

9.1.1 We operate under a revenue cap

Our electricity network operates under a 'revenue cap' form of price control. Our revenue is approved by the AER at the beginning of a five-year regulatory period. During the regulatory period, when we collect more or less than the allowed revenue in any given year, we will return the excess or seek to recover the shortfall from customers in the following year. This ensures that our customers do not over-pay or underpay for their network prices over the five-year regulatory period.

9.2 Market changes since the last price reset proposal

The accelerated pace of the energy transition presents both opportunities and uncertainties for Jemena and our stakeholders. We are seeing an increase in the number of rooftop solar systems, more batteries, and increased electric vehicles. There's growing interest in communal energy solutions like shared solar installations, virtual power plants, and community batteries. CER are now more accessible than ever.

Federal and state government renewables policies and emissions targets

The Australian and Victorian governments are moving towards net zero, with both jurisdictions targeting net-zero emissions through a diverse range of policies. While the link between tariffs and net-zero targets is not direct, tariffs can encourage consumers to make decisions that would benefit the network and lead towards a net-zero future in the longer term.

Consumer Energy Resources

CER are behind-the-meter resources and technologies that consumers can use in their homes or businesses to manage, generate, and/or store energy. Some common examples of CERs include electric vehicles, rooftop solar systems and home batteries.

The adoption of CER has gained momentum in recent years as consumers increasingly seek to control their energy use to lower their energy costs and reduce their environmental impact. However, this introduces new challenges for managing our network and increases the need for network augmentation.

- **Electric Vehicles** have gained significant popularity worldwide. As the rate of vehicle electrification increases, the new demand for EV charging will require network and non-network solutions, such as tariffs, to facilitate this transition.

- **Rooftop Solar Photovoltaic systems** offer numerous benefits but also pose challenges to grid stability. Excessive solar generation in the middle of the day, for example, can reduce network stability and even cause blackouts.
- **Home and community batteries** store electricity during periods of excess supply or low electricity rates. They can benefit the network by improving network resilience and reducing the need for network augmentation when they are used to export electricity during peak demand times or store electricity during times when excess solar exports might have a negative impact on grid stability. However, if batteries are used at times that are not favourable for the network, such as charging during peak times, they can put strain on the network.

Tariffs can help address these challenges by encouraging network utilisation at the right times. They can encourage consumption at off-peak times through pricing signals. When customers respond to pricing signals passed on from retailers, it could help limit the maximum and minimum demand in the long term which can result in electricity system benefits.

9.3 What our customers and stakeholders have said

Before commencing our engagement on tariffs, we surveyed retailers and consulted with small businesses and customers to understand their key priorities. We then completed just under 80 hours of engagement, with a wide range of customers and other stakeholders. We held three joint tariff engagement forums with the other Victorian electricity distribution network service providers involving customer advocacy groups, retailers, industry experts, and representatives from the AER and the Victorian government, to develop our pricing principles and workshop our proposed future tariff structures and seek feedback.

Tariff design must be simple and customer-centric, and our stakeholder groups echoed this view. We also recognise the vital role that retailers play and the importance of aligning tariff structures across Victorian distribution network service providers.

Our Tariff Structure Statement, which lays out our tariff structures and the approach to pricing we will take over the next regulatory period, is to be submitted in January 2025. It will balance the views of these diverse groups of stakeholders and customers with our business needs.

9.3.1 Objectives

When establishing or changing tariffs, we abide by the requirements set out in the National Electricity Rules while also looking to customer and stakeholder groups for further guidance on priorities for the period. We consulted on the pricing principles together with other Victorian distribution network service providers through our joint tariff engagement forum. Table 9.1 displays the pricing principles that we would adopt to guide us in developing our tariff structures for the next regulatory period.

Table 9.1: The pricing principles identified through our engagement

Principle	How the principle should be used
Simple	Network tariffs should be simple and consistent, and readily understood by retailers, customers and stakeholders.
Efficient	Network tariffs should incentivise customer behaviours that make network costs more affordable and equitable in the long term
Adaptable	Network tariffs should be capable of being evolved for future network configurations and emerging technologies, consistent with a net zero future.

9.3.2 Customer preferences

Our residential customers (Customer Voice Groups and People's Panel) also endorsed the above pricing principles. During our discussions with residential customers, two other customer priorities became clear to us:

Fairness and equity

While "equity" was considered as part of the "Efficient" principle by our stakeholder groups, it came up repeatedly as a vital and stand-alone consideration for customer groups. Customers find the National Electricity Rules requirement of cost-reflective pricing compelling but have particular concerns for people experiencing vulnerability and customers with rooftop solar who are unexpectedly facing higher bills due to the wind-down of high feed-in tariffs and the possible introduction of export tariffs.

Education

Customers appreciated learning more about Jemena and our current tariff structures. They believe that if all customers were more educated about pricing and the need for behavioural change, customer behaviour would be more likely to change, whether to support the network or in response to price signals.

- What do we need to do to ensure fairness in our tariffs and tariff structures?
- How can we best educate customers about pricing and tariffs?

9.4 Proposed changes to our tariff structures

9.4.1 Residential

The primary tariffs we offer to our residential customers are outlined in Table 9.2 below.

Table 9.2: Residential customer primary tariffs

Tariff	Tariff details
Single-rate	Includes: – Daily fixed charge ($/day) – Single-rate consumption charge (c/kWh) This tariff's consumption charge is the same, no matter the time of day.
Time of Use	Includes: – Daily fixed charge ($/day) – Peak consumption charge (c/kWh) – Off-peak consumption charge (c/kWh) This tariff's consumption charge varies depending on the time of day, with peak electricity costing more than off-peak electricity.
Demand	Includes: – Daily fixed charge ($/day) – Single-rate consumption charge (c/kWh) – Demand ($/kW) This tariff's consumption charge is the same, no matter the time of day. However, the demand charge is levied based on the customer's demand during peak times.

Our current default residential tariff is Time of Use, which is a cost-reflective tariff. It has a daily fixed charge along with differing charges for peak and off-peak periods, reflecting that our network is predominantly built to meet the peak demand in the 3pm to 9pm window. All new and upgrading smart meter-enabled customers are automatically placed on this tariff. Most customers can opt out of the ToU tariff and go to our residential single-rate tariff (on which customers pay the same rate for electricity throughout the day). The number of residential customers on our default ToU tariff is increasing.

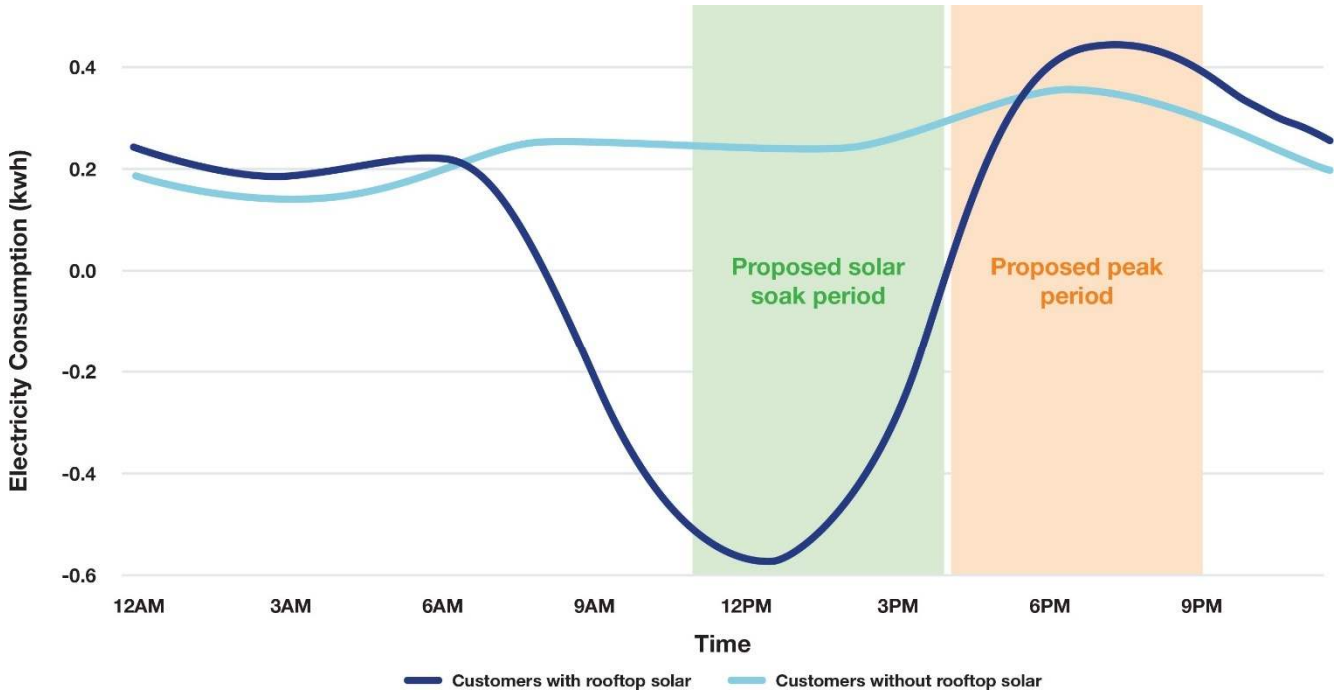
Case for change

Only 160 of our residential customers are on our demand tariff. These customers pay a charge for their monthly maximum demand. This tariff is poorly understood by customers, and few retailers offer it at all due to the difficulty of explaining it to customers and the need to change retailer billing systems to cater to a very small volume of customers on this tariff. For these reasons, we propose to remove the residential demand tariff in the next regulatory period and move all customers currently on this tariff to our Daytime Saver ToU tariff, which we outline below.

As highlighted earlier, rooftop solar penetration is increasing, which may cause network instability as more customers export their excess energy in the middle of the day. Figure 9.2 below are the consumption profiles for residential customers with and without solar exports. They demonstrate the time windows in which issues with excessive solar exports are most likely to occur. With an even greater increase in solar uptake over the next decade, issues caused by excess solar exports in the middle of the day are expected to exacerbate network stability issues.

We are proposing two new residential tariffs to reflect our customers' preferences for improving fairness, equity, and cost-reflectivity and enabling increased penetration of renewables in our network.

Figure 9.2: Average daily electricity consumption of Jemena's residential customers[56]



56 Average daily electricity usage profiles for Jemena' customers, 2023 calendar year.

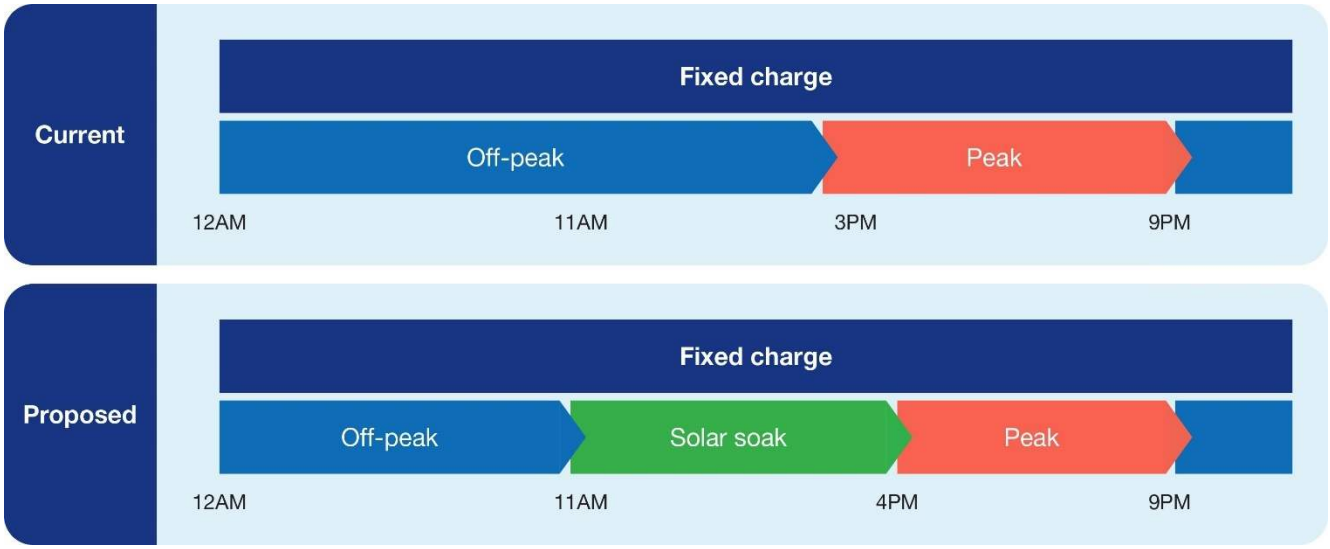
Daytime Saver (Solar Soak Time of Use)

We want to incentivise customers, with or without solar, to use more energy created in the middle of the day, addressing grid stability issues that may be caused by excess solar exports during this window. A tariff update could enable *all* customers to benefit from the energy generated by customers with solar PV. We propose to change our existing ToU tariff by introducing a "solar soak" period in the middle of the day to our existing ToU tariff. This solar soak period would operate as an additional off-peak period, with cheaper pricing than the off-peak window to encourage consumption.

"Update tariff language so it is instantly understandable for customers (e.g. 'solar soak' could be 'free' or 'midday discount'." Electricity retailer representative

We held a series of joint Victorian distribution network service provider engagement forums to seek feedback on this new tariff structure. Based on this stakeholder feedback, we are proposing the time windows of the solar soak and peak periods as shown in Figure 9.3 consistent with all other Victorian distribution network service providers. These windows will apply to *all* customers in Victoria with a Daytime Saver tariff. Overall, the peak period window for residential customers is reducing from 6 hours in a day (3 pm to 9 pm) to 5 hours (4 pm to 9 pm).

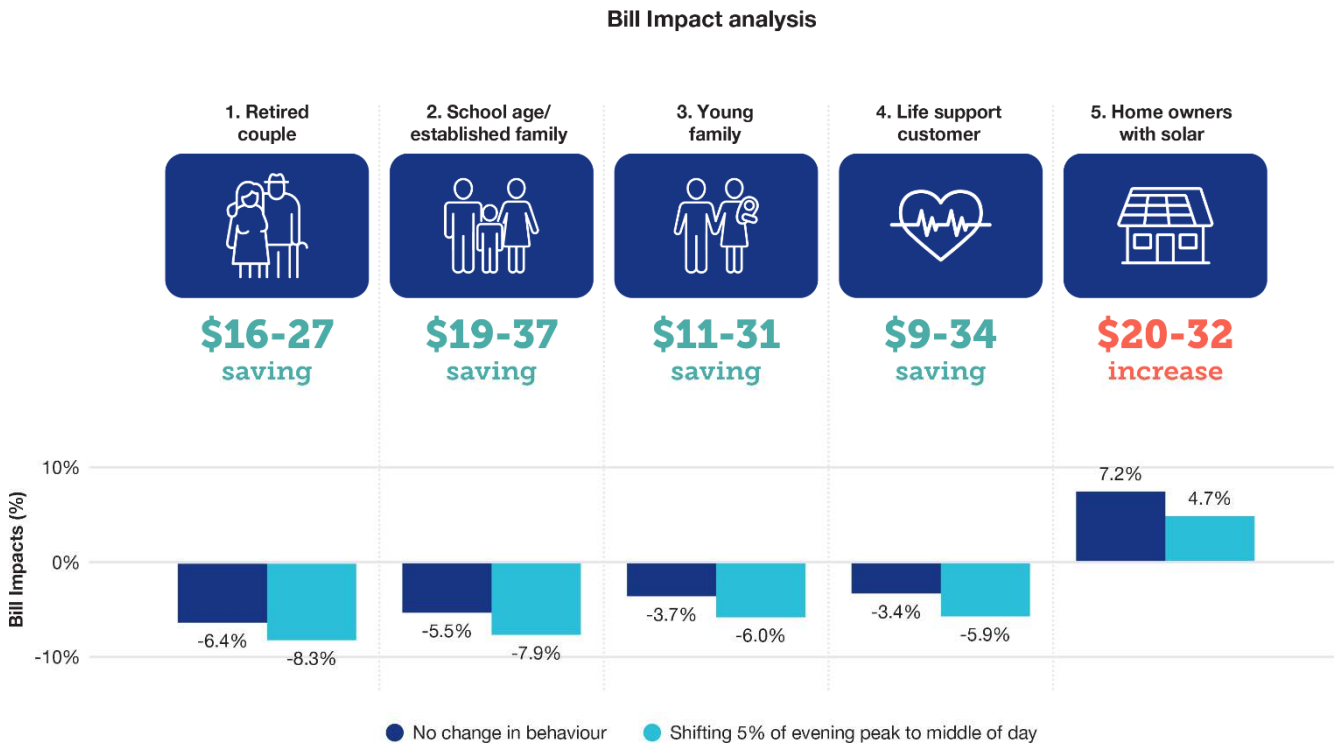
Figure 9.3: Current and proposed residential Time of Use tariff structure and timing



We propose moving all residential customers to our existing ToU and changing the demand tariff to the new Daytime Saver ToU tariff. Along with other Victorian distribution network service providers, we have estimated the network bill impacts of this move for different customers across Victoria, as illustrated in Figure 9.4. Most customers benefit from lower bills, except for customers with high solar exports who benefit from rebates for solar exports. All customer segments can reduce their bill further by moving their consumption from the peak or off-peak periods into the solar soak period. We estimate that if customers move 5 per cent of their peak period consumption to the solar soak period, their bills can be reduced further by 3-4 per cent (as shown in the light blue bars below).

"I think the new solar soak tariff is a great initiative. The proposed export charge/reward tariffs are establishing appropriate incentives." Jemena customer

Figure 9.4: Victoria average bill impact of new ToU tariff by customer type

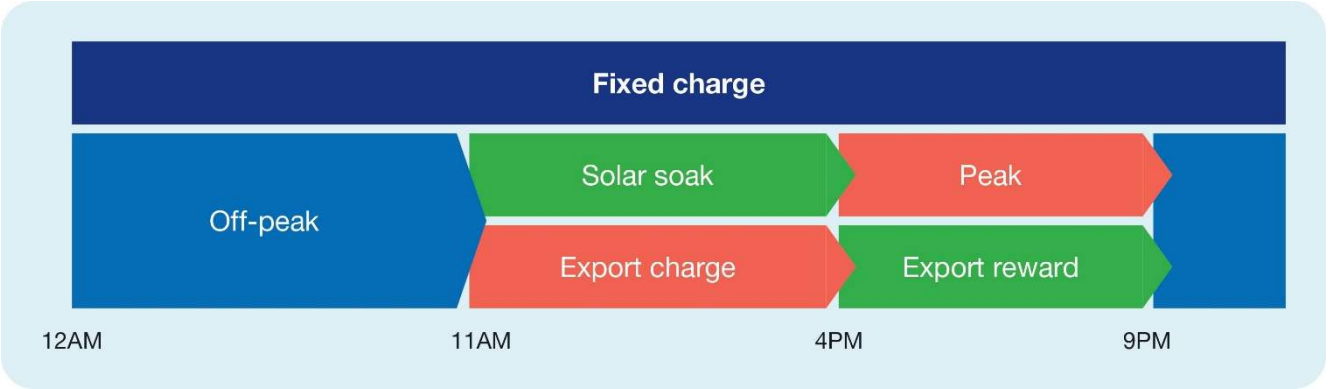


Export tariff

As our customers increasingly adopt CER, such as rooftop solar and batteries, our network will need upgrades to handle the increased energy exported into the grid. The export tariff, like the ToU tariff, is designed to send pricing signals to customers to indicate when certain behaviours are beneficial or costly to the network. This tariff includes charges for exporting to the network when the network is under constraint, rewards when exports benefit the network, and zero export charges when exports are expected to have no network impact.

This tariff will be provided on an *opt-in* basis in the next regulatory period. The proposed timing and structure are shown in Figure 9.5. The periods of export charges and rewards align with the new Daytime Saver ToU tariff.

Figure 9.5: Proposed export tariff structure and timing



The export charge intends to *discourage* customers from exporting during the middle of the day (11am to 4pm) and *encourage* customer self-consumption. The export reward provides a bill credit for exporting during the evening period of peak demand (4pm to 9pm), similar to how feed-in tariffs work for current solar customers, but only during the part of the day when the network needs more electricity. Exporting during other periods is free of charge.

"Helping enable tariff flexibility (e.g. opt-in tariffs), so retailers can better meet the needs of different vulnerable residential and business customers" Electricity retailer representative

This tariff may appeal to residential customers who can self-consume or store their solar energy between 11am and 4pm and export at later times, for instance, customers with home batteries.

Basic export Limit

A basic export limit is the amount of electricity that a customer will be able to export to the grid at no cost. We are proposing a zero basic export limit which means that customers will be charged for exporting (those on the opt-in tariff only).

Through our Future Network Strategy we aim to manage the load of excess solar back into the grid so that the times customers would be charged for exporting would be minimal.

Customer response

Overall, our residential customers support the two new suggested residential tariffs. Initially, they expressed a level of concern related to the export tariff, but once clarified it would be an opt-in only approach for existing solar customers, they were supportive. Residential customers are supportive of the tariff as long as it remains opt-in.

The stakeholder forums conducted by the joint Victorian distribution network service providers spent most of their time building to and workshopping these residential tariffs. Stakeholders were broadly supportive of the proposed structure of the Daytime Saver ToU tariff, while noting that customer education and consideration of the effects on customers experiencing vulnerability is crucial.

Stakeholders also supported the export tariff, noting that it may appeal both to sophisticated individual customers and retailers or aggregators who wish to combine their customers' electricity exports to offer to the market. They noted that the pricing levels of this tariff would need to be chosen carefully to avoid cross-subsidisation between customers who have opted to this tariff and other residential customers.

Retailer discussions have confirmed that they do not view the demand tariff as necessary or useful for residential customers, supporting its removal.

9.4.2 Small business

At this point, we have not proposed any changes to small business customers' tariff structures. We heard from our customers that price certainty is particularly important to them. We are therefore proposing to maintain our existing tariffs.

In collaboration with the other Victorian distribution network service providers, we released a small business consultation paper to the community and small business interest groups for consultation in June 2024, with responses received in July 2024. The paper sought views on:

- adjusting peak and off-peak windows for the small business ToU tariff
- reasons for introducing a solar soak period in the middle of the day
- whether customers should still be able to opt in to single-rate tariffs
- whether demand tariffs should be removed for small business customers
- the benefits of introducing export tariffs
- tariff assignment.

Customer response

Based on previous experience, small business customers are very time-poor, and their availability to consult in network tariffs is very limited. Attendees expressed a strong opinion on specific pricing or tariff topics. However, they expressed concern about the pace of change in the energy market, and whether the information they currently received from their retailer was sufficient. They were keen to understand how the energy transition would affect their retail bills, given the uncertainty in this area, the current price sensitivity, and the viability of solar panels, battery storage and the future of EV charging.

In June 2024, the Victorian distribution network service providers released a joint paper seeking input from stakeholders on small business tariffs. The main and common theme in responses was a suggestion that distribution network service providers consider solar soaks for small business customers. Our view is that most small business customers do not require an incentive to consume more electricity during peak periods of solar export as they consume most of their electricity during the day. Those who do not already consume their electricity during the day (for example, restaurants) will be unable to respond to the pricing signal by shifting their consumption.

9.4.3 Large business

By the end of the current regulatory period, all large customers will have been moved to a fully cost-reflective tariff, including a summer demand incentive charge (**SDIC**) component[57] as outlined in our current Tariff Structure Statement. This will allow us to remove the transitional tariffs for large customers, leading to an overall simplification of tariff selection for customers.

> *"We support simpler and more consistent tariffs and guidelines (in partnership with retailers and other Victorian distributors) which can be more easily explained to executive teams (e.g. around maximum demand and energy consumption)."*
> *Large customer*

Site-specific tariffs

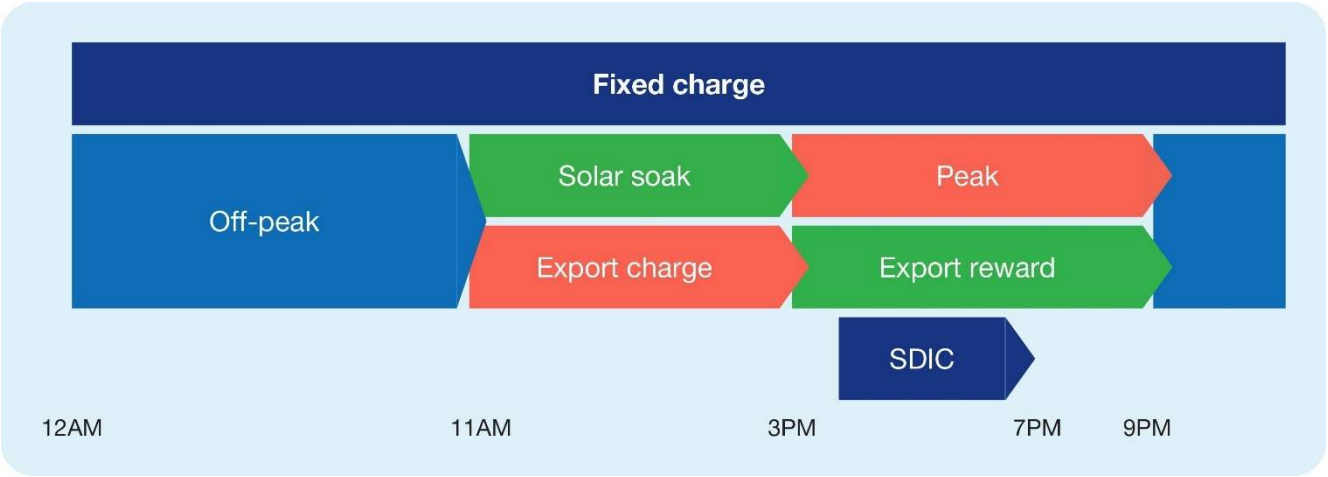
We have a trial tariff in place to investigate site-specific pricing for our largest customers, connected at the subtransmission level. We will be investigating the conversion of this to a permanent tariff.

Community battery tariff

Community batteries are shared resources. They can store energy from connected solar customers in the community at times of peak solar output (i.e., in the middle of the day) and return electricity to the same consumers during network peak times when solar energy is less likely to be available and electricity is more expensive. This can also benefit the larger network by reducing network peak demand and preventing excess solar energy from entering the network.

While there has yet to be a widespread take-up of community batteries in Australia, they are on the cusp of becoming more prevalent, with both the Federal and Victorian Governments providing funding for trial community battery projects. As a distribution network service provider, we are interested in exploring community battery opportunities ourselves and supporting the projects of the retailers, councils and energy-focused community groups who have reached out to us for information on these batteries. To facilitate the uptake of community batteries, Jemena has offered a Large Business - LV community battery tariff as a trial since 1 July 2023. No customers are currently on this tariff, but this is expected to change, with four Jemena-owned community batteries and one community group-owned battery expected to come online in 2025. There are also further batteries expected in the pipeline in response to Federal and Victorian Government incentives.
The trial tariff is similar to the residential export tariff in structure, with the addition of a summer demand tariff component to discourage battery charging in times of peak demand, as demonstrated in Figure 9.6. We note that the solar soak period for community batteries is currently attracting a bill credit, i.e. community battery customers are paid for consuming electricity during this period of peak solar exports. We plan to continue with our trial tariff structure as shown in Figure 9.6.

Figure 9.6: Structure and timing of trial community battery tariff



57 The Summer Demand Incentive Charge is a tariff component targeted at reducing Large Business demand in the peak times of 4-7pm during the December to March period, the hottest months of the year.

The additional tariff components in the trial community battery tariff are an export charge and an export reward, both of which are energy consumption components to be charged in *cents per kilowatt-hour (c/kWh)*. The export charge would penalise batteries exporting during the middle of the day solar soak period to encourage the battery operator to store electricity when it's of no use to the network. The export reward would give battery operators a bill credit for exporting during the evening period of peak demand. The SDIC component is intended to disincentivise the battery from charging in periods of peak demand and adding to the costs of our customers.



Customer response

In our large customer forums, customers expressed a desire for simple tariffs, with components that are easy to explain to non-experts in each business. Some customers also indicated that they find current tariff components difficult to respond to, meaning that price signals will not change these customers' behaviour.

We note that customers have raised concerns about the SDIC. This tariff component was introduced in the current regulatory period, in response to the AER concerns that our other demand charging components were not sufficiently cost-reflective in periods of peak demand. The SDIC aims to provide an incentive for customers to reduce their demand during the 4 pm – 7 pm SDIC peak period from December to March.

As the process of transitioning customers to SDIC tariffs is ongoing, we are not proposing further changes to large customer tariffs in the next regulatory period. However, we are open to feedback from stakeholders.

Key Questions

- What changes would you like to see to residential, small business or large business tariffs?
- Which parts of our large business tariffs are the hardest to understand?
- What are alternative tariff structures that would work for customers, especially in large business tariff categories?

10. Smart metering





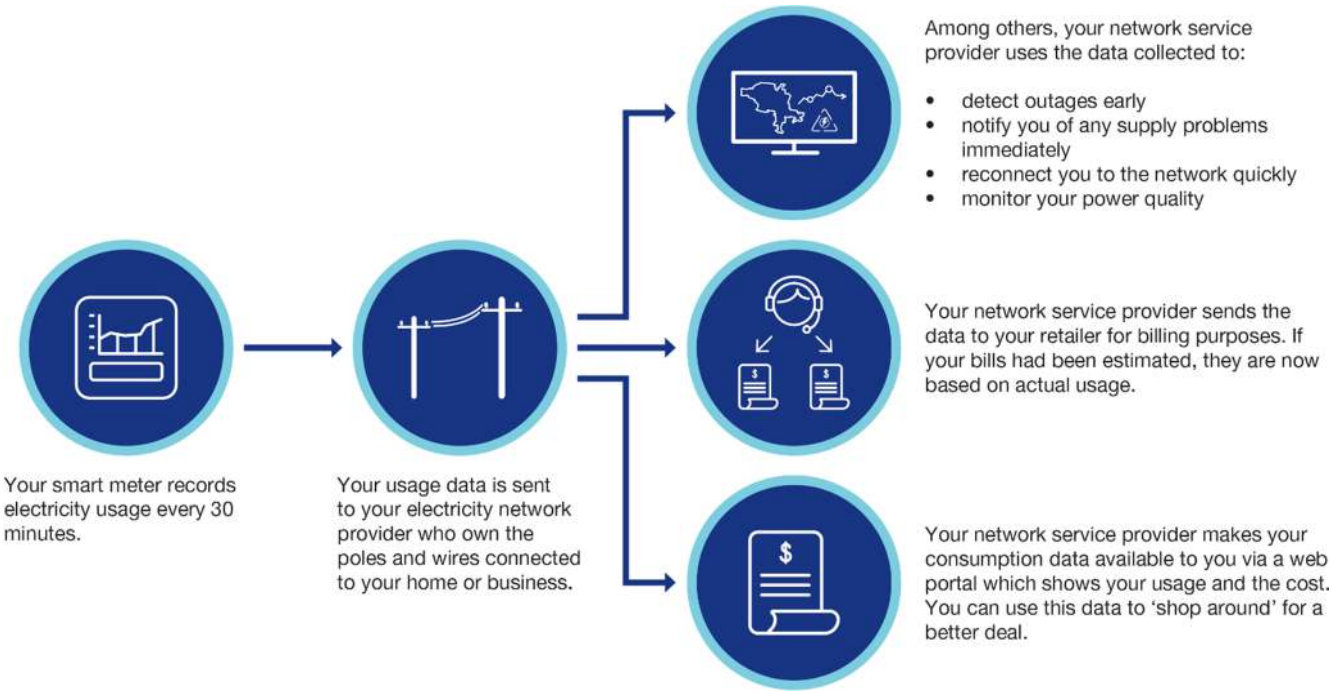
Highlights

- We forecast a total revenue requirement of $125M for our smart metering services in the next regulatory period. This is 4 per cent lower than our expected revenue requirement for the current period.
- Our forecast smart metering revenue requirement will translate to a decrease in prices for our residential and small business customers. Large business customers have metering services provided by their own metering providers.
- For the next regulatory period, we will manage the planned replacement of aging AMI meters and comply with our new obligations on smart meter inspections.
- Smart meters capture extensive amounts of data and support the delivery of other products and services.

10.1 Overview

Advanced Metering Infrastructure consists of a smart meter which is an electronic meter that records energy consumption in intervals of 30 minutes or 5 minutes (for meters installed after December 2018) and a mesh communications network that transmits meter reading information back to the metering data provider. This meter reading information is then passed on to a customer's electricity retailer for billing purposes and to the Australian Energy Market Operator to settle the electricity market. Customers can also monitor their energy consumption in near real-time to help them better manage energy costs. Figure 10.1 illustrates this process.

Figure 10.1: How customers, electricity retailers and distributors benefit from smart meters



Smart meters also capture power quality information, which can be used to manage the electricity distribution network more efficiently. For example, it can be used for remote analysis of customer power quality issues, detection of network issues for customer safety, and generation of regulatory compliance reports.

In Victoria, distribution network service providers are responsible for providing metering services for small customers. We own, install, and maintain the smart meters at customers' properties and provide the following metering services. Metering services:

- installation, operation, maintenance and replacement of smart metering installations (type 5, type 6 and AMI meters)[58]
- collection of meter data, processing and storage of meter data, and provision of access to meter data for type 5 and 6 metering installations, including AMI meters.

Only AMI meters connect to our mesh network; for type 5 and type 6 meters, we have dedicated meter reading staff that attend a customer's site to read the meters manually. Currently, 99.7 per cent of our meters are AMI meters.

Under the regulatory framework that applies to distribution network service providers, metering services are categorised as alternative control services.

10.2 Customers benefit from smart meters

When it comes to advanced metering infrastructure, we are constantly finding new and innovative ways to realise the benefits and will continue to embrace the technological advances that accompany them. We also plan to leverage the infrastructure to further develop a smart, robust and efficient network in conjunction with our future network strategy (see Chapter 3) to meet ever-changing customer needs. Table 10.1 provides a summary of the benefits smart meters provide to customers.

Table 10.1: Benefits of the advanced metering infrastructure smart meters

Group Type	Benefit
Jemena Customers	Remote meter reading - eliminates the need for manual meter readings, decreases the risk of human error and improves billing accuracy. This leads to more accurate energy bills and improved customer satisfaction.
	Remote connection and disconnection – we can connect and disconnect a customer's electricity supply remotely, reducing the cost and time required to provide these services.
	We can connect technology that connects new smart appliances to the meter to facilitate home energy management.
	Enable customers to access their energy consumption data via Jemena's Electricity Outlook portal and see how much electricity they are using and when they are using it. This allows customers to compare retail market offers.
	With real-time data on energy consumption, customers can make informed decisions about their energy usage, leading to increased energy efficiency. This helps lower energy bills and promote energy sustainability.
	Allows solar customers to monitor the amount of energy they export back to the electricity network. This provides an accurate measurement of their solar feed in tariff and enables better energy consumption management.
	Develop and apply smart technologies to the operation of and investment in the electricity network.

58 Type 5 manually read meters record electricity consumption in 30-minute intervals and are manually read by a meter reader. Type 6 meters record accumulated energy data only and are also read manually. AMI meters record customer usage multiple times each day and are remotely read.

Group Type	Benefit
JEN - Future Network & Planning	Provide information regarding consumption usage patterns, enhance the demand response, and improve electricity supply chain efficiency.
	Improved demand forecasts on the electricity distribution network allows Jemena to target our capital spending more effectively.
	Enable the integration of energy generated by customers through distributed generation to support the energy transition towards zero-carbon future.
	Advanced analytics – enabled by smart meter data provides Jemena with rich data on energy consumption, generation and voltage performance. This data can be analysed to identify patterns, trends, and opportunities for network improvement. This allows Jemena to make informed decisions about its operations and improve the overall network performance.
	Real-time monitoring will improve the health of the network, promote the safety to customers' supply services, and ensure ongoing conformance.
JEN- Network Operations	Outage management - Improve responsiveness to supply outages through automated outage notifications. This results in improved supply reliability for customers.
	Reduce hazards by remotely identifying poor connections. The AMI system allows us to detect if a customer has a faulty meter or overhead service that needs replacing.
	Planned switching activities- AMI data is used to verify and update Jemena's GIS mapping in its operating management system (OMS). This ensures the OMS accurately predicts the scope of Jemena's planned network switching activities.
	Enable Jemena to calculate outage times and durations. This information improves the calculation accuracy of our reliability metrics (SAIFI and SAIDI). It identifies the best and worst performing circuits enabling Jemena to develop the most cost-effective action plan for future grid modernisation investments.

10.3 Key developments that will affect our costs of providing metering services

There are several factors that impact the cost of providing metering services in the next regulatory period. Many of our smart meters will reach the end of their technical design life during the next regulatory period, which means they will need to be replaced. We also expect a new regulatory obligation that will require Jemena to inspect the meters on site. [59] Equally important is our customers' feedback on matters that may have direct or indirect implications on our costs of providing smart metering services in the next regulatory period.

10.3.1 Aging AMI meters and new obligations on meter inspections

The most significant driver of expected costs on metering services relates to our AMI meters. There are two key factors contributing to the increase:

Replacement of aging AMI meters

We deployed our AMI meters starting in 2009 when the Victorian Government mandated distribution network service providers to install smart meters at our small customers' properties. The design life of these AMI meters is 15 years, which means many of them are now reaching the end of their technical life. We expect to replace 96,558 ageing AMI meters (25 per cent of our total AMI meters) in the next regulatory period, if not, we expect they will fail by 2030. The 25 per cent failure assumption is informed by:

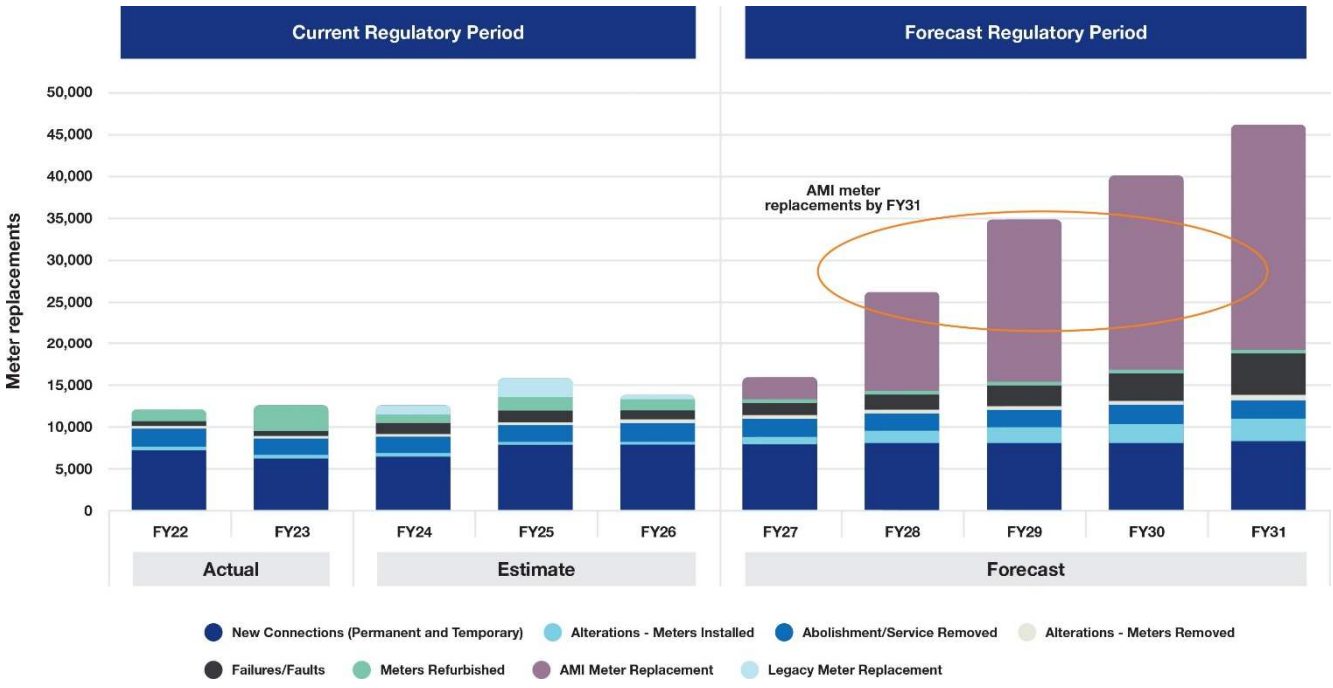
- discussions with meter manufacturers and other Victorian distribution network service providers
- Jemena's observed growth rate in the rate of failures (from sample testing and refurbishment lesson) and

59 AEMC, National Electricity Amendment (Accelerating Smart Meter Deployment) Rule, 4 April 2024

- the expected increase in failures when Jemena starts visual inspections of 15 year old Vic AMI meters (which is outlined in the section below).

Replacement forecasts include the expected supply upgrades from single to three-phase meters that we anticipate coming from the network transformation (see Chapter 3). We do not plan to rush out and replace all of our AMI meters on their 15th anniversary, Instead, we will target replacing those meters that need to be changed. This means we will extend the technical lives of the majority of our meters to get the most out of them and defer costs as a result. This approach balances the risk forecast cost risk between Jemena and our customers. Figure 10.2 shows historical and forecast meter replacements.

Figure 10.2: Historical and forecast meter replacements



Compliance with regulatory obligations on meter inspections

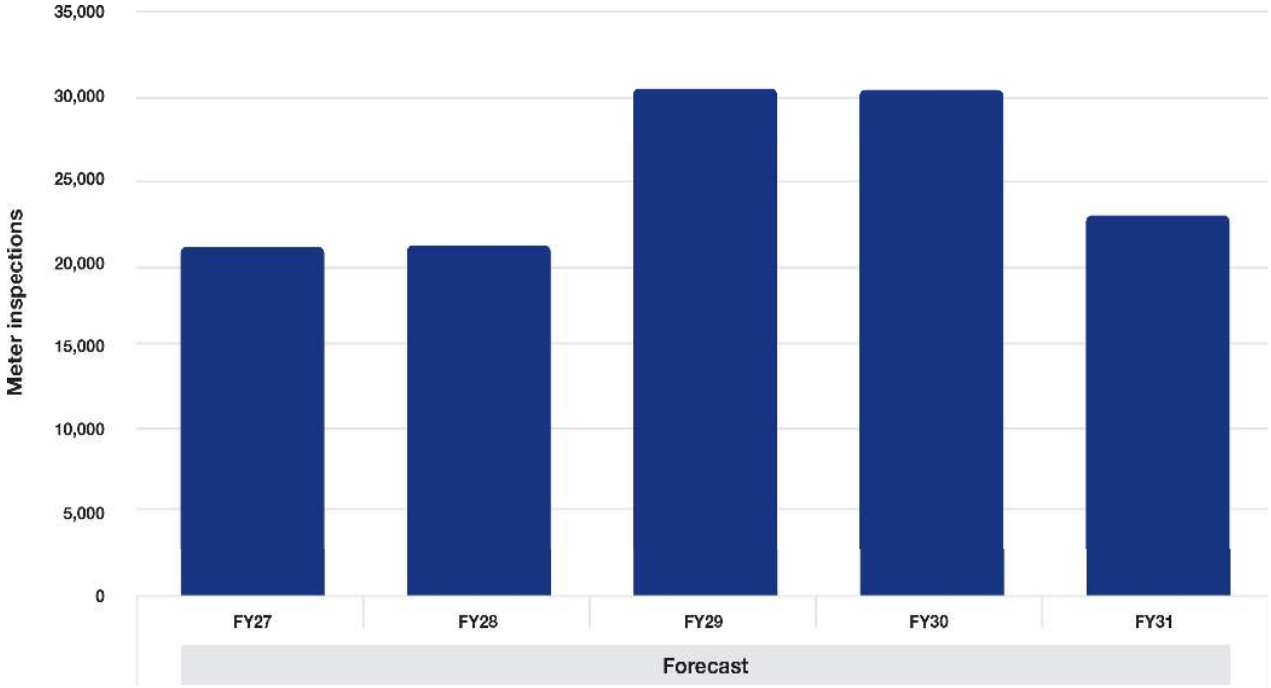
Jemena must undertake meter installations to ensure the integrity of the meter data being recorded. We do this when conducting routine meter testing (for example, during sample testing of meter accuracy) and through ongoing remote monitoring, all Jemena's meter installations[60] are subject to periodic time-based inspections. Specifically, all current metering installations will be physically visited and technically inspected within the five years following the 15-year anniversary of their original installation (unless the meter is scheduled to be replaced in that 5-year period) and every 15 years thereafter. This meter inspection plan is outlined in Jemena's Metering Asset Management Strategy (MAMS) document. This approach aligns with AEMO's position paper where it no longer views "inspections at the time of testing" as acceptable where meter testing is conducted through sample testing for testing the meter installation itself. In its position paper, AEMO has clarified that meter inspections reliant solely on remote monitoring are not an adequate substitute for a physical inspection of metering installations.

As noted in the replacement of the aging AMI meters section, Jemena's AMI meter population began operating life in 2009 when Jemena began installing AMI meters as part of the state-wide AMI rollout project. Based on this, the age profile of our AMI meters indicates that about 125,200 AMI meters are now due for visual inspection over the next regulatory period. This is calculated by deducting the number of meter replacements from the number of age-based inspections.

Figure 10.3 shows our forecast AMI meter inspections over the next regulatory period.

60 A metering installation comprises the assembly of components, including the instrument transformer, measurement element(s) and processes, recording and display equipment, and communications interface, that are controlled for the purpose of metrology and which lie between the metering point(s) and the point at or near the metering point(s).

Figure 10.3: Forecast AMI meter inspections



To increase efficiency, we have co-optimised physical meter inspections (operating expenditure) and replacement activities (capital expenditure). That is, we will not inspect a meter if it has recently been replaced through the 15 year replacement program.

10.3.2 New regulatory obligations to replace legacy meters

In April 2024 the AEMC published its accelerating smart meter deployment draft rule change which seeks to achieve universal uptake of smart meters across the National Electricity Market by 2030.[61] The draft rule change also requires that distribution network service providers work with retailers to develop a Legacy Meter Replacement Plan. The plan will set out the distribution network service provider's timing for replacing legacy meters over the 2025-30 period. The AEMC's final determination is scheduled to be released on 28 November 2024.

This impending new rule will impact the metering services we provide. While more than 98 per cent of our customers already have smart meters, around 3,000 customers still have type 5 or type 6 legacy meters. Once the rule change takes effect, we will be required to replace these legacy meters over the period 2025-30 (see Figure 10.2). The majority of this work may occur in the next regulatory period.

Once the rule change is finalised and the extent of work is known in Victoria, we will incorporate the cost of this exercise into our initial regulatory proposal.

10.3.3 Our customers' recommendations

While our customers did not have specific feedback in regard to metering services, several of their recommendations require our smart metering fleet to remain operational and reliable. These recommendations are outlined in detail in Chapter 2 and include support for digitisation and automation. Many of our future network initiatives, aimed at connecting our customers to renewable sources of energy and accommodating more CER into our network, are integrated with our Advanced Metering Infrastructure. We will only realise the benefits of those initiatives with our reliable and functioning smart meters. Given this, we consider that our proposed metering services and annual revenue requirements will address our customers' expectations on digitisation and automation and championing renewable energy generations.

61 AEMC, National Electricity Amendment (Accelerating Smart Meter Deployment) Rule, 4 April 2024



10.4 We are not proposing any changes to how we set our smart metering charges

Similar to our approach for calculating standard control services revenue requirements in the next regulatory period, we will use the AER's building block model to determine our annual revenue requirement for the provision of smart metering services. Our proposed annual revenue requirement is the sum of:

- return on capital (also known as the return on assets), which represents the benchmark financing costs of investing in our AMI system. The return on capital for a given year is calculated by multiplying the rate of return by our forecast metering asset base at the start of that year
- regulatory depreciation (also known as the return of capital), which represents the payback of our investment in our metering system
- operating expenditure allowance, which represents the estimated prudent and efficient costs of operating and maintaining our metering system
- corporate income tax allowance, which represents the estimated cost of corporate income tax for a benchmark firm providing electricity distribution services.

See Chapter 8 on annual revenue requirements for a more detailed discussion of the building block method.

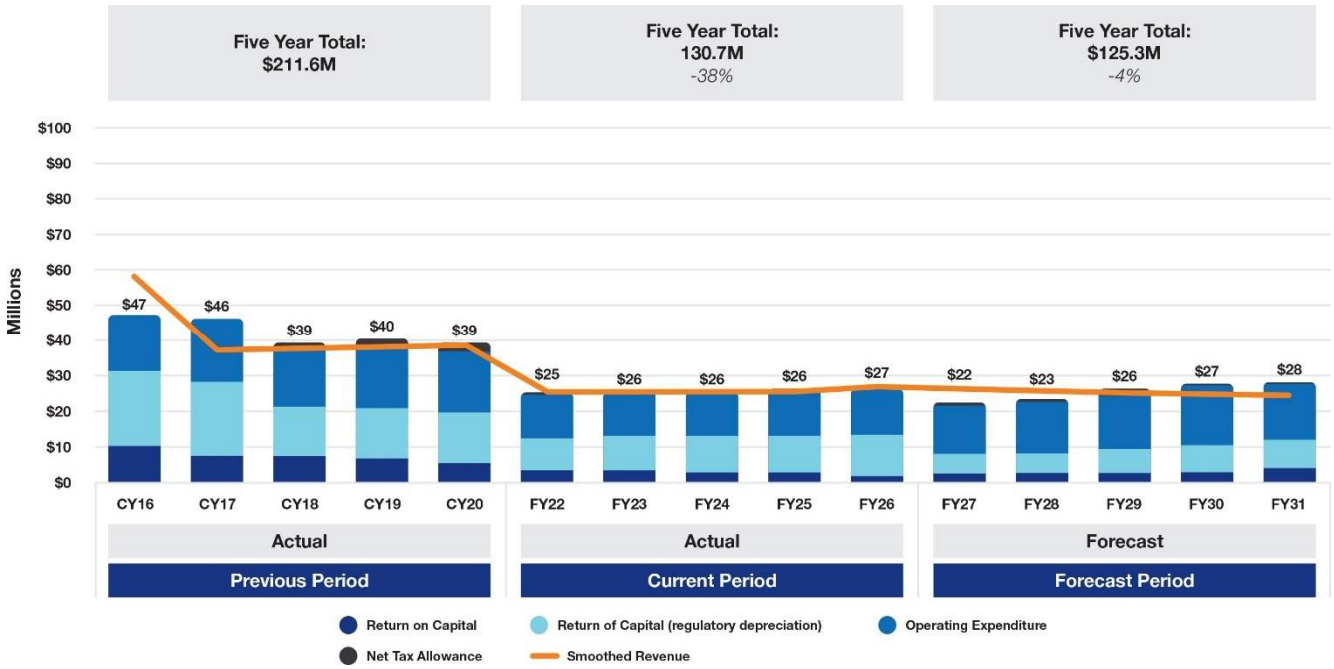
We propose to continue applying a revenue cap form of price control to our annual smart metering charges. Under this form of price control, our annual smart metering services revenue is capped for each year of the next regulatory period. If we under or over-recover our revenue in a regulatory year, we are allowed to adjust the revenue and prices for the following year to reflect the difference. The overall aim is to ensure that over the five-year regulatory period, annual prices may change, but the total revenue recovered for the regulatory period should not exceed the regulatory allowance.

Our approach to setting prices for metering services is relatively simple and follows the approach we have used in the current regulatory period. We take the revenue that we calculated we will require to provide metering services and allocate it across the different meter types that we provide.

10.5 Our proposed revenue requirements and what it means for customers

The revenue we need to provide metering services to our customers will decrease by 4 per cent in the next regulatory period. This will result in an equivalent decrease in prices for our residential and small business customers. Figure 10.4 shows our historical and forecast revenue requirements for our metering services.

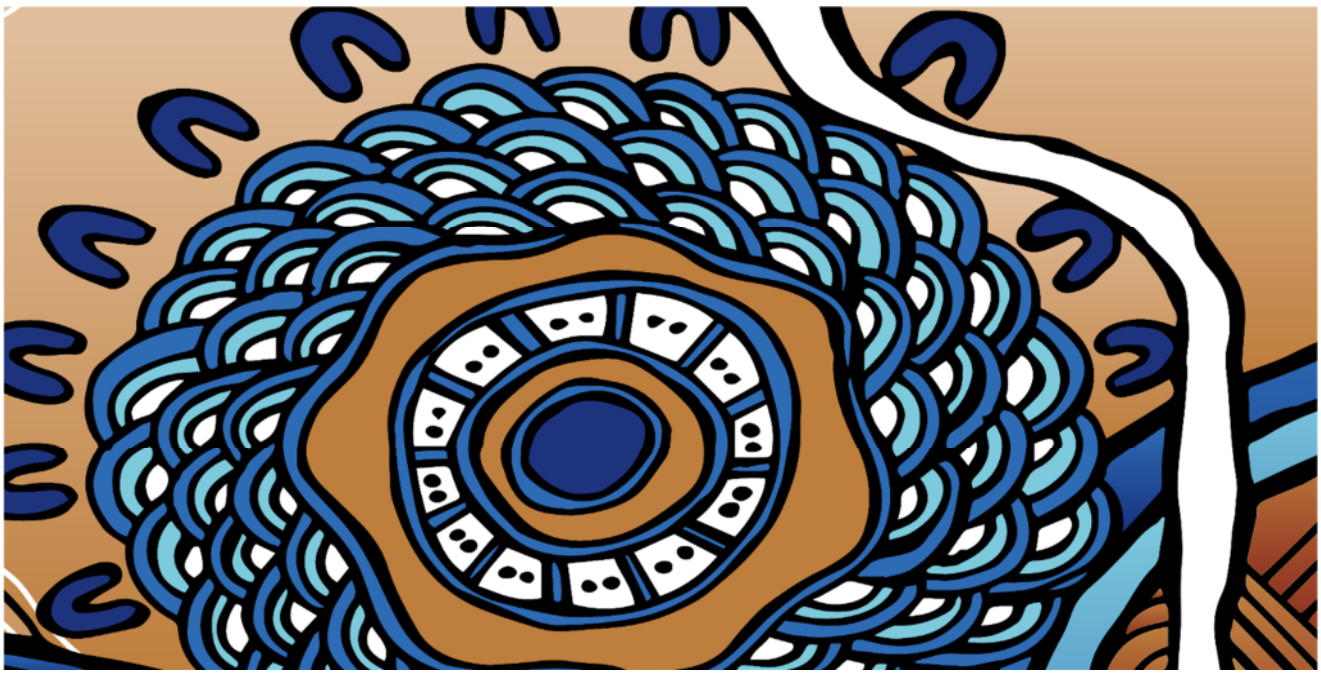
Figure 10.4: Revenue requirement for metering services, Real $2026, millions



The key drivers for our revenue requirement for metering services are meter replacements (capital expenditure) and in-person inspections of meters (operating expenditure). Despite the new obligations affecting our operating costs for metering, the average metering cost per customer across the five years is forecast to remain at the current level of $60 (in real terms) per customer.

Questions for your consideration

- What do you think about our proposed approach to meter replacement in the next regulatory period?
- Do you have other concerns about our metering services that you want us to address?



11. Other services



Highlights

- Other services include alternative control services other than smart metering services; it includes public lighting and ancillary services.
- We propose changing our approach to setting prices for public lighting services in the next regulatory period to use the AER's post-tax revenue model rather than the simplified building block model used in the current regulatory period. All else being equal, this change in approach should flatten public lighting prices over a longer period of time.
- We propose to maintain our bottom-up build of costs for setting other services pricing.

11.1 Overview

In this chapter we give an overview of what influences our prices for the following alternative control services:

- Public lighting services
- Ancillary network services, which include basic connection services and connection management services, among others. (Refer to Chapter 4 – Our services for a full list of services we propose to provide)

The costs associated with providing these services are recovered directly from customers who request them. Depending on the nature of the service, these services are either charged on a fee or quotation basis. We propose to continue applying fixed prices for some services where the scope and cost of providing the service are similar between jobs. For the remaining services, prices will be quoted by way of a cost pass-through using the labour rates, along with material and contractor costs.



11.2 Public Lighting Services

We provide the following public lighting services to 13 local councils, and VicRoads:

- operation, maintenance, repair and replacement of public lighting assets in line with the Public Lighting Code (Code) or the relevant legislation[62]
- alteration and relocation of our public lighting assets
- provision of new public lights, including in greenfield sites
- provision, construction and maintenance of emerging public lighting technology.

We propose changing our approach to setting prices for public lighting services in the next regulatory period to use the AER's post-tax revenue model rather than the simplified building block model used in the current regulatory period. All else being equal, this change in approach should flatten public lighting prices over a longer period of time.

Notwithstanding this change, we will continue to develop the operating expenditure component in the pricing model using a bottom-up cost approach.

11.2.1 Operating, maintaining and replacing existing lights

Currently, we have approximately 78,500 public lights, comprising 19 different light types, installed in our electricity distribution service area, and we are providing public lighting services. These public lights are attached to dedicated poles (usually in newer residential estates) and power poles that are part of our electricity distribution network.

Under our public lighting management program, we plan to replace all our T5 luminaires and mercury vapour luminaires with light emitting diode (LED) and photoelectric (PE) cells over the next regulatory period. We also plan to replace some of our metal halide and sodium high-pressure luminaires with LED luminaires. Our public lighting program and corresponding costs for the next regulatory period have been informed by the following:

Our compliance obligations

The Code prescribes specific timeframes for replacing, repairing and maintaining public lights. The objective of the Code is to ensure that public lighting provides a safe visual environment for pedestrian and vehicular movement during times of inadequate natural light. We support the Code and comply with it. Our proposed replacement of luminaires with standard LEDs and PE cells in the next regulatory period is consistent with the requirements of the Code.

In addition, we must comply with the Minamata Convention, which Australia adopted in 2022. The Minamata Convention is an international convention designed to reduce the use of mercury in all aspects of our daily lives. This has implications for our public lighting service because mercury is present in some of the globes we use. In 2024, we have started replacing our compact fluorescent luminaires (CFL), metal halide (MH) and mercury vapour (MV) luminaires with standard LEDs when they fail. This replacement program will continue into the next regulatory period. Based on our replacement program, there will be no more mercury vapour luminaries by the end of the next regulatory period.

We are also subject to guaranteed service level obligations under the Code, which impose a financial penalty on electricity distribution network service providers if we do not repair a public light within two business days of a fault being reported or a period otherwise agreed with the customer. As such, the guaranteed service level is an important consideration in the development of our replacement and expenditure programs and plans.

Technology and market developments

Many cities around the world are investing in "smart city" technologies for street lighting, with sensors, cameras, data analytics, and other advanced features integrated into lampposts to improve public safety, monitor air quality, and provide other services, such as EV charging.

LED street lighting has gradually been adopted as LED produces the same level of brightness as high-intensity discharge lighting.[63] LED lighting delivers benefits to customers as it is highly energy-efficient, reducing energy consumption by up to 70 per cent

62 Essential Services Commission, Public Lighting Code, Version 2, December 2015.

63 High-intensity discharge (HID) lamps operate by creating an electrical discharge in the ionised gas. They are generally used in commercial and industrial applications where high levels of light are required, such as warehouses, outdoor lighting, street lighting, and stadium lighting.

compared to traditional lighting technologies. LED lighting is also highly versatile, with the ability to produce a wide range of colours and lighting effects, and it can be easily controlled and dimmed when it is considered appropriate.

However, our approach to public lighting is customer-driven, which means we work with local councils and VicRoads to ensure that we embrace technological developments that meet our customers' needs. We will work closely with our public lighting customers to understand their preferences for adopting smart technologies and take these into account in our proposed programs and plans for the next regulatory period.

Our recent operating experiences

Our replacement program in the next regulatory period is also driven partly by emerging operational and performance issues with particular lamp types that have emerged during the current period, such as:

- MV lamps contain excessive quantities of mercury beyond the acceptable limits; therefore, manufacturing and installation of these products will cease in Australia.
- The demand for CFL has reduced, and, as a result, manufacturers are ceasing production of CFL lighting, terminating future supplies.
- MH lamps are being replaced, given their small numbers and inferior performance. Maintaining stock levels is also problematic, as small quantities prove difficult to source from suppliers.
- Latest information from suppliers also indicates that the market is phasing out T5 lamps. While the majority of our T5 luminaires are mid-way through their 20-year expected service life, we consider it prudent and efficient to take a proactive replacement approach, given the supplier issues. We plan to replace all our T5 luminaries with LEDs during the next regulatory period.

We currently have a bulk re-lamping program that schedules lamp replacement on a four-year cycle in accordance with the Code requirements. This timing ensures that lamp replacement occurs at a point-in-time when the light output from the lamp is nearing its minimum required output levels. Our approach is to replace CFL, MH, MV and T5 luminaires with LED when the lamps are due for replacement in the bulk re-lamping cycle. This approach is lowest cost for or public lighting customers as lights are replaced just in time and not replaced prematurely.

Feedback from our public lighting customers

We are strongly focused on understanding and responding to the public lighting needs of local councils and VicRoads. We had a productive workshop with them in June 2024. Their feedback is summarised in Table 11.1.

Table 11.1: Summary of our public lighting customers' feedback

Key topic	What our customers told us
Future opportunities	– Have greater standardisation of lighting levels – Explore LED replacements and technology upgrades of lights to realise savings and also given that traditional bulbs are becoming increasingly difficult to replace – Keep up with new technologies – Do not always implement the cheapest option and engage with councils about trade-offs – Explore pilot funding or grants for smart public lighting/controls (i.e. a shift from a default-on approach to task-based lighting) and consider partnering with council parks departments and capital works teams to explore opportunities – Consider other pole technologies, which include 360-degree lighting, solar panels, public address (PA) warning systems, CCTV, EV chargers (although noting that there are challenges with EV charging for councils)
Additional 'standard' options	– Consider offering additional 'standard' options for more wild-life friendly lighting or lighting for level crossing removals
Improvement in processes for maintenance	– Keep up to date with maintenance; make swifter updates in GIS – Provide a 'more workable' solution to decorative lighting, including a better process for replacing damaged lights

Key topic	What our customers told us
Information sharing and guidance to councils	– Share more information with customers about planned timeframes for installations, the lifecycle of current lights; more granular data about the nature of faults, decommissioned lights and light types; price differential between electricity distributors – Provide clearer explanations of who owns which light – Provide guidance to councils with unique, new and existing park lighting needs; communicate or prescribe footpath lighting standards – Help councils educate communities on what compliant public lighting standards look like to help councils set community expectations

Our customers have raised several suggestions on how we can improve the information we share with councils and our maintenance processes. We will review our internal processes and consider changes to address our customers' suggestions.

The general view seems to be that smart lighting is initially undertaken as a pilot. We have a role to provide, construct, and maintain emerging public lighting technology. However, as mentioned above, our approach to public lighting is customer-driven, which means we work with local councils and VicRoads to ensure that we embrace technological developments that meet our customers' needs. We are keen to explore the smart lighting opportunities further with our customers through this consultation.

Our customers also suggested that we offer additional 'standard' options for more wild-life friendly lighting (such as possibility of using 3000 Kelvin as default on local roads) and lighting for level crossing removals.

Changes in real input prices

"Help councils educate communities on what complying public lighting standards look like – to help Councils set community expectations." Local council representative

Our forecast expenditure for public lighting takes into account changes in the real cost of labour, changes in the costs of materials, the failure rate of lights, and an adjustment to the time taken to replace and maintain lights—to better reflect the actual duration of that work.

New public lights

We will make offers to customers requesting new public lighting consistent with the requirements of the Code.

Questions for your consideration

– Should we consider any other approaches to managing supply constraints on legacy public lighting types?

– Are there other factors that we need to consider in our public lighting program for the next regulatory period?

– Should Jemena seek public lighting trial funding through the price reset process to explore implementing new technologies?



11.3 Ancillary network services



The costs associated with providing ancillary network services are recovered directly from customers who request them, consistent with the AER's Electricity Distribution Services Classification Guideline.[64] Depending on the nature of the service, it is either charged on a fee or quotation basis. We propose to continue to apply fixed prices for some services where the scope and cost of providing the service are similar between jobs. For the remaining services, prices will be quoted by way of a cost recovery using the labour rates, along with material and contractor costs.

Consistent with our current approach, we will charge a fixed fee to cover the costs we incur in completing the work for basic connections, where little or no augmentation of the network is required. This is in line with our responsibilities under Chapter 5A of the National Electricity Rules and the AER's Connection Charge Guideline. We charge a fixed fee for basic connections because the work we must carry out and the costs we incur in doing so are relatively constant.

To develop ancillary service prices, we will adopt the AER's standard ancillary services model.

Questions for your consideration

– Are there any other considerations Jemena should take into account when developing prices for ancillary services?

64 AER, Electricity Distribution Service Classification Guideline: Final guidelines, August 2022.

12. Have your say





We invite customers and stakeholders to review our Draft Plan and share their thoughts and feedback with us.

Ways to give feedback include:

- Make a submission or complete the feedback survey on our **website link here.**
- Give feedback via **email:** GridTalk@jemena.com.au
- **Website:** GridTalk.com.au/DraftPlan

Submissions and feedback close on 16 September 2024.



Appendix A Classification of distribution services





Classification of distribution services

Table A.1 below outlines our service classification for the next regulatory period. It includes our newly classified electricity distribution services, which the AER has accepted as part of its final Framework for Victorian electricity distribution network service providers.[65]

Table A.1: Classification of electricity distribution services for the next regulatory period

Service group	Further description	Classification
Common distribution services (CDS) – use of the distribution network for the conveyance/flow of electricity (including the services relating to network integrity)		
Common distribution service	The suite of activities includes, but is not limited to, the following: – the planning, design, repair, maintenance, construction and operation of the distribution network – works to fix damage to the network[66] (including recoverable works to fix damage caused by a customer or third party) – support for another network during an emergency event – procurement and provision of network demand management activities for distribution or system reliability, efficiency or security purposes – activities related to 'shared asset facilitation' of distribution network service provider (DNSP) assets[67] – emergency disconnect for safety reasons and work conducted to restore a failed component of the distribution system to an operational state upon investigating a customer outage – establishment and maintenance of National Metering Identifiers (**NMI**s) in market and/or network billing systems, and other market and regulatory obligations – ongoing inspection of private electrical networks (not part of the shared network) required under legislation for safety reasons[68] – supply abolishment of basic connection – customer safety information, e.g. 'dial before you dig' services – bulk supply point metering – activities relating to monitoring the flow of electricity through the distribution network	Standard control

65 AER, Final Framework and Approach Papers for AusNet Services, CitiPower, Jemena, Powercor and United Energy 2026-31, July 2024.

66 May include the provision of temporary stand-alone power systems to restore supply.

67 Revenue for these services is charged to the relevant third party and is treated in accordance with the shared asset guideline. 'Shared asset facilitation' refers to administrative costs. It does not refer to the costs associated with providing the unregulated service itself.

68 Section 113F of the *Electricity Safety Act 1998* **(Vic)** requires Victorian DNSPs to inspect overhead private electric lines

Service group	Further description	Classification
	– third party initiated network asset relocations/re-arrangements, including under the Victorian Electricity Distribution Code of Practice (EDCoP)[69] – transmission network support – the relocation of assets that form part of the distribution network, but not – relocations requested by a third party (including a customer) – use of dynamic network capacity management capabilities (including communication of import and export limits) for distribution purposes – training internal staff and contractors undertaking direct control services investigation of customer-reported network faults – rectification of simple customer faults where: – the need for rectification work is discovered in the course of the provision of distribution services – the work performed is the minimum required to restore safe supply – the work can be performed in less than thirty minutes and does not normally require a second visit – work related to a regulated stand-alone power system (SAPS) deployment, operation and maintenance (including fault and emergency repairs)[70], and customer conversion activities; and – provision of basic electricity distribution network data, including data that is provided in accordance with legislative obligations, standardised or automated data sets.	
Mandatory provision of essential system services	Activities include: – interruption or curtailment of generation of embedded generating units connected to the distribution system at AEMO's direction to manage minimum system load risks, as part of Victoria's Emergency Backstop Mechanism – interruption or disconnection of supply to premises at AEMO's direction to manage under-frequency load risks.	

69 This classification applies where a customer contribution is calculated and applied in accordance with Essential Services Commission Victorian Electricity Distribution Code of Practice or where a customer contribution is calculated and applied in accordance with any other relevant Victorian legislation or regulation, including regulations made under the National Electricity (Victoria) Act, 2005. The party requesting such works under this classification must pay the net cost of the works, subject to any rebates specified in the Victorian Electricity Distribution Code of Practice or by any other relevant Victorian legislation or regulation.

70 Includes simple customer fault rectification on generation service of regulated SAPS.

Service group	Further description	Classification
Network ancillary services – customer and third party initiated services related to common distribution services		
Access permits, oversight and facilitation	Activities include: – a DNSP issuing access permits or clearances to work to a person authorised to work on or near distribution systems including high and low voltage – a DNSP issuing confined space entry permits and associated safe entry equipment to a person authorised to enter a confined space – a DNSP providing access to switch rooms, substations and other network equipment to a non-DNSP party who is accompanied and supervised by a **DNSP**'s staff member. May also include a **DNSP** providing safe entry equipment (fall arrest) to enter difficult access areas – specialist services (which may involve design related activities and oversight/inspections of works) where the design or construction is non-standard, technically complex or environmentally sensitive and any enquiries related to DNSP assets – facilitation of generator connection and operation of the network – facilitation of activities within clearances of DNSP's assets, including physical and electrical isolation of assets.	Alternative control
Sale of approved materials or equipment	– Includes the sale of approved materials/equipment to third parties for connection assets that are gifted back to become part of the shared DNSP network.	Alternative control
Notices of arrangement and completion notices	Examples include: – work of an administrative nature where a local council requires evidence in writing from the DNSP that all necessary arrangements have been made to supply electricity to a development. This includes but is not limited to receiving and checking subdivision plans, copying subdivision plans, checking and recording easement details, site visits, assessing supply availability, liaising with developers if errors or changes are required, and preparing notifications of arrangement – provision of a completion notice (other than a notice of arrangement). This applies where the DNSP is requested to provide documentation confirming progress of work. Usually associated with discharging contractual arrangements (e.g. progress payments) to meet contractual undertakings.	Alternative control
Network related property services	Activities include: – network related property tenure services such as property tenure services related to providing advice on, or obtaining: deeds of agreement, deeds of indemnity, leases, easements or other property tenure in relation to property rights associated with a connection or relocation – conveyancing inquiry services relating to the provision of property conveyancing information at the request of a customer.	Alternative control

Service group	Further description	Classification
Network safety services	Examples include: – provision of traffic control and safety observer services by the DNSP or third party where required – fitting of tiger tails, possum guards, and aerial markers; – high load escorts – site visit relating to location of underground cables/assets – third party request for de-energising wires for safe approach.	Alternative control
Customer requested network outage or rescheduling of a planned interruption	Examples include: – customer initiated network outage (e.g. to allow customer and/or contractor to perform maintenance on the customer's assets, work close to or for safe approach) – where the customer requests to move a distributor planned interruption and agrees to fund the additional cost of performing this distribution service outside of normal business hours.	Alternative control
Inspection and auditing services	Activities include: – inspection and reinspection by a DNSP, of gifted assets or assets that have been installed or relocated by a third party – investigation, review and implementation of remedial actions that may lead to corrective and disciplinary action of a third party service provider due to unsafe practices or substandard workmanship – auditing and inspection of a third party service provider's work practices in the field – re-test at a customer's installation, where the installation fails the initial test and cannot be connected or has been disconnected for more than 12 months or for safety reasons – customer or third-party requested inspection of privately owned low voltage or high voltage network infrastructure (i.e. privately owned distribution infrastructure before the meter).	Alternative control
Provision of training to third parties for network related access	Training services provided to third parties that result in a set of learning outcomes that are required to obtain a distribution network access authorisation specific to a DNSP's network. Such learning outcomes may include those necessary to demonstrate competency in the DNSP's electrical safety rules, to hold an access authority on the DNSP's network and to carry out switching on the DNSP's network. Examples of training might include high voltage training, protection training or working near power lines training.	Alternative control

Service group	Further description	Classification
Authorisation and approval of third party service providers' design, work and materials	Activities include: – authorisation or re-authorisation of individual employees and subcontractors of third party service providers and additional authorisations at the request of the third party service providers (excludes training services); – acceptance of third party designs and works – assessing an application from a third party to consider approval of alternative material and equipment items that are not specified in the DNSP's approved materials list.	Alternative control
Security lights	Provision of operation and maintenance of equipment mounted on distribution equipment used for security services, e.g. nightwatchman lights. Note: excludes connection services.	Alternative control
Provision of non-basic electricity network data	Data requests by customers or third parties for network data beyond the scope of Standard Control Service provision, including: – data requests by customers or third parties including requests for the provision of electricity distribution network data or consumption data outside of legislative obligations – customer or third-party requests for assistance to understand or interpret data, or to identify the data they require to meet their needs.	Alternative control
Third party funded network alterations or other improvements	Alterations or other improvements to the shared distribution network to enable third party infrastructure (e.g. telecommunications assets) to be installed on the shared distribution network. This does not relate to upstream distribution network augmentation.	Alternative control
Community network upgrades	Collective customer requested network enhancement. Activities related to community requests to augment the network to enable higher PV exports.	Alternative control

Service group	Further description	Classification
Metering services – activities relating to the measurement of electricity supplied to and from customers through the distribution system (excluding network meters)		
Type 1 to 4 metering services	Type 1 to 4 metering installations[71] and supporting services are competitively available.	Unregulated
Types 5 and 6 meter (including smart meter) services where the DNSP remains responsible	Includes: – recovery of the capital cost of type 5 and 6 metering equipment[72] including communications network (including meters with internally integrated load control devices) – testing, inspecting, investigating, maintaining or altering existing type 5 or 6 metering installations or instrument transformers – quarterly or other regular reading of a metering installation – metering data services that involve the collection, processing, storage and delivery of metering data, the provision of metering data from the previous two years, remote or self-reading at difficult to access sites, and the management of relevant NMI Standing Data in accordance with the NER.	Alternative control
Auxiliary metering services (type 5 to 7 including smart metering) where the DNSP remains responsible	Activities include: – requests to test, inspect and investigate, or alter an existing type 5 or 6 metering installation – testing and maintenance of instrument transformers for type 5 and 6 metering purposes – non-standard metering services for type 5 to 7 meters and any other meter types introduced – works to re-seal a type 5 or 6 meter due to customer or third party action (e.g. by having electrical work done on site) – change distributor load control relay channel on request that is not a part of the initial load control installation, nor part of standard asset maintenance or replacement – remote de-energisation and re-energisation – remote meter configuration – field based special meter read – office based special meter read – metering exit services.	Alternative control
Type 7 metering services	Administration and management of type 7 metering installations in accordance with the NER and jurisdictional requirements. Includes the processing and delivery of calculated metering data for unmetered loads, and the population and maintenance of load tables, inventory tables and on/off tables.	Alternative control

71 Includes the instrument transformer, as per the definition of a 'metering installation' in Chapter 10 of the NER.

72 Includes the instrument transformer, as per the definition of a 'metering installation' in Chapter 10 of the NER.

Service group	Further description	Classification
Connection services – services relating to the electrical or physical connection of a customer to the network		
Basic connection services	Means a *connection service*[73] related to a *connection* (or a proposed *connection*) between a *distribution system* and a *retail customer*'s premises (excluding a non-registered *embedded generator*'s premises) in the following circumstances: (a) either: 1. the *retail customer* is typical of a significant class of *retail customers* who have sought, or are likely to seek, the service; or 2. the *retail customer* is, or proposed to become, a *micro embedded generator*; and (b) the provision of the service involves minimal or no *augmentation* of the *distribution network*; and (c) a *model standing offer* has been approved by the AER for providing that service as a *basic connection service*.	Alternative control
Standard connection service	Connection services (other than a basic connection service) for a particular class (or sub-class) of connection applicant and for which a model standing offer has been approved by the AER.	Standard control
Negotiated connection	Connection services (other than a basic connection service) for which a DNSP provides a connection offer for a negotiated connection contract. This includes connections under Chapter 5 of the NER.	Standard control
Connection application and management services	– Connection application related services – Works initiated by a customer or retailer that are specific to the connection point. This includes, but is not limited to: – field based de-energisation[74] and re-energisation – non basic supply abolishment or reposition non-basic connection; – temporary connections (e.g. for builder's supply, fetes etc.) – overhead service line replacement – customer requests the existing overhead service to be replaced (e.g. because of a point of attachment relocation). No material change to load – protection and power quality assessment – supply enhancement (e.g. upgrade from single phase to three phase); – customer requested change requiring primary and secondary plant studies for safe operation of the network (e.g. change protection settings) – upgrade from overhead to underground service – rectification of illegal connections or damage to overhead or underground service cables	Alternative control

73 Italics denotes definitions in Chapter 5A of the NER.

74 De-energisation services related to business as usual activities and de-energisation services that may relate to changing over meter types.

Service group	Further description	Classification
	– calculation of a site specific distribution loss factor on request in respect of a generating unit up to 10 MW or a connection point for an end-user with actual or forecast load up to 40 GWh per annum capacity, as per clause 3.6.3(b)(1) of the NER – calculation of site specific loss factors when required under the NER; – power factor correction – embedded network management; – assessing connection applications or a request to undertake relocation of network assets as contestable works and preparing offers – processing preliminary enquiries requiring site specific or written responses – undertaking planning studies and associated technical analysis (e.g. power quality investigations) to determine suitable/feasible connection options for further consideration by applicants – liaising with groups representing multiple connecting parties (e.g. community group upgrades) – site inspection in order to determine the nature of the connection service sought by the connection applicant and ongoing co-ordination for large projects – registered participant support services associated with connection arrangements and agreements made under Chapter 5 of the NER.	
Enhanced connection services	Other or enhanced connection services provided at the request of a customer or third party that include those that are: – provided with higher quality reliability standards or lower quality of reliability standards (where permissible) than required by the NER or any other applicable regulatory instruments. This includes reserve feeder installation and maintenance; – in excess of levels of service or plant ratings required to be provided by the DNSP – management of export and load at a customer site that provides the customer greater network capacity than they would otherwise be eligible for.	Alternative control
Public lighting		
Public lighting	– Operation, maintenance, repair and replacement public lighting services – Alteration and relocation of public lighting assets – New public lighting services incl. greenfield sites & new light types (DNSP provided) – Provision, construction and maintenance of emerging public lighting technology.	Alternative control



To have your say on this Draft Plan,
visit **GridTalk.com.au/DraftPlan**

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