Table of contents

Foreword ................................................................................................................................. 5
Summary of our GN21 draft plan ......................................................................................... 7
1. About our GN21 draft plan ................................................................................................. 9
2. Background ......................................................................................................................... 12
3. A net zero emissions future ............................................................................................... 17
4. What we heard from our consumers ............................................................................... 22
5. Our network prices and revenue requirement ................................................................. 37
6. Our capital expenditure program ..................................................................................... 47
7. Operating costs .................................................................................................................. 53
8. Customer number and volume forecasts .......................................................................... 59
9. How to provide feedback ................................................................................................. 65
I am pleased to share with you our draft plan for Evoenergy’s submission to the Australian Energy Regulator (AER) for our gas distribution network in Canberra, Queanbeyan and Bungendore, for the period 2021 to 2026. A focus of our planning is the ACT Government’s climate change policy, which involves a legislated target for the ACT of net zero greenhouse gas emissions by 2045. Evoenergy supports a responsible transition to achieve this target, but significant uncertainty remains about the best pathway for the ACT energy sector to achieve it. We have prepared the plan for our gas network against this uncertain backdrop, taking on board what we have heard from consumers through our engagement program.

Decarbonising our gas network is a complex challenge. The gas network currently supplies a large proportion of the region’s energy requirements, particularly in the cold winter months. Substituting gas with electricity would require significant expansion of the existing electricity network and leave our investment in the gas network stranded.

Achieving net zero greenhouse gas emissions while providing energy to customers that is safe, secure, reliable and affordable, involves solving major strategic, technical, social and operational issues. We will continue to collaborate with the ACT Government, technical experts, the gas user community, and industry to thoroughly investigate available options and choose a pathway to net zero emissions that ensures consumers continue to have access to energy that meets their needs, minimises costs and ensures we are equipped for the future.

In preparing our formal regulatory proposal for submission to the AER in June 2020, we have engaged with a broad range of consumers to understand their diverse views and priorities. Central to our consumer engagement has been a Citizens’ Jury—an open and deliberative four-day process that brought together a representative panel of community members to look deeply at what consumers expect as Evoenergy transforms the gas network to meet the 2045 emissions target.

What we have heard throughout our engagement program is that consumers support environmental sustainability and want to know the costs and impacts of all future energy options before a decision is made on how best to achieve it. We heard that consumers are concerned about the potential impacts and want to ensure that vulnerable consumers are supported through the transition. We also heard that consumers are concerned about affordability and want to be kept informed.

While our network charges make up only around 25 per cent of the average residential retail gas bill, our draft plan aims to respond to consumer concerns by minimising our expenditure and maintaining network price stability while we assess potential decarbonisation pathways and develop a roadmap for achieving net zero emissions by 2045. While we undertake this important work, we will continue to provide the safe and reliable gas supply our customers want.

The publication of this draft plan is the next step in our engagement program and will inform our final submission to the AER in June 2020. We are seeking feedback on the draft plan, and whether it best serves consumers’ long-term interests.

We thank you for your interest and welcome your feedback.

Fiona Wright
 Acting General Manager
 Evoenergy

Foreword

Fiona Wright
Acting General Manager
Evoenergy
Summary of our GN21 draft plan

- Evoenergy owns and operates the gas distribution network in the ACT and in the adjoining Queanbeyan-Palerang local government area of NSW
- Our network charges account for around 25 per cent of your total retail gas bill
- We must submit our plan for the gas network (GN21 plan) to the Australian Energy Regulator by 30 June 2020

- The ACT Government has committed to achieving net zero greenhouse gas emissions in the ACT by 2045
- The ACT Government’s climate change policy is a focus of our planning but we are making sure we determine the right course of action that includes thorough community consultation and detailed assessment of alternative options
- While we work towards a roadmap for the future of the gas network, we propose to limit expenditure during the 2021–26 period

Our draft plan delivers lower costs

For customers our draft plan delivers:

- Safe and reliable gas supply while costs are minimised
- Stable network prices
- Time to progress our transition roadmap for achieving net zero emissions by 2045
- A declining regulatory asset base value
- Simplified tariffs
- A capital expenditure sharing scheme to further promote efficiency

Summary of our GN21 draft plan

Climate change policy

Our draft plan has been shaped by:

- Our draft plan has been shaped by:

Climate change policy

- Our draft plan has been shaped by:

Consumer feedback

- Our draft plan has been shaped by:

Consumer feedback

Consumers:

- want to understand costs and impacts of future energy options before decisions are made
- are concerned about the affordability of current supply, and transition impacts, especially for vulnerable customers
- have a range of views on expansions into new ACT developments

Our draft plan delivers lower costs

For customers our draft plan delivers:

- Safe and reliable gas supply while costs are minimised
- Stable network prices
- Time to progress our transition roadmap for achieving net zero emissions by 2045
- A declining regulatory asset base value
- Simplified tariffs
- A capital expenditure sharing scheme to further promote efficiency

Let us know what you think

The draft plan is available for comment on our website or email us at consumerfeedback@evoenergy.com.au
Comment on the GN21 draft plan is open until 2 April 2020.
1. About our GN21 draft plan

This GN21 draft plan is an important part of the development of the 2021–26 gas network plan (GN21 plan) for the five year period from 1 July 2021 to 30 June 2026. The GN21 plan will propose how much we need to spend to operate, maintain, and invest in our gas network in the ACT and Queanbeyan-Palerang, and how these costs should be recovered from gas network customers. The final GN21 plan must be submitted to the Australian Energy Regulator (AER) no later than 30 June 2020.

Engagement with energy consumers is central to the development of this plan so we can ensure that it reflects our consumers’ expectations. Publishing this draft plan enables our consumers to provide further input before we submit the final plan. After it is submitted, the AER will provide the opportunity for stakeholder submissions as part of the formal review process. Figure 1.1 shows the key dates in the development of the plan and the opportunities for engagement and stakeholder input.
To allow us to publish our draft plan as early as possible and allow maximum opportunity for feedback, we have included some placeholder estimates which are based on the most up to date information available at the time of preparing this GN21 draft plan and may change as we respond to feedback and refine our estimates. Such estimates include volume forecasts, which affect operating costs and prices, and financial market information, which will affect the rate of return allowed by the AER.

Unless otherwise stated, all financial information in this draft plan is presented in real 2020–21 dollars, that is, in current dollar values, excluding the effect of inflation. We do this so that financial information such as expenditure forecasts can be compared on a like-for-like basis.

Table 1.1 below provides an outline of this GN21 draft plan.

### Table 1.1 GN21 draft plan outline

<table>
<thead>
<tr>
<th>Section 2</th>
<th>Background provides an overview of Evoenergy, the gas supply chain and regulatory framework in which we operate.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 3</td>
<td>A net zero emissions future explains the environmental policy context in which we have prepared this GN21 draft plan.</td>
</tr>
<tr>
<td>Section 4</td>
<td>What we heard from our consumers details the engagement journey we have been on with our consumers and what we have heard from them.</td>
</tr>
<tr>
<td>Section 5</td>
<td>Our network prices and revenue requirement presents the impact our draft plan is likely to have on the average residential gas bill and provides details of the total revenue we require to cover our costs.</td>
</tr>
<tr>
<td>Section 6</td>
<td>Our capital expenditure program details what we expect to spend on building and replacing network assets over the 2021-26 access arrangement period, including some examples of major projects.</td>
</tr>
<tr>
<td>Section 7</td>
<td>Operating costs explains what we expect to spend over the period to operate and maintain the network so that we can continue to provide safe and reliable gas network services.</td>
</tr>
<tr>
<td>Section 8</td>
<td>Customer number and volume forecasts explains how we have forecast what the demand for gas network services will be over the 2021-26 access arrangement period.</td>
</tr>
<tr>
<td>Section 9</td>
<td>How to provide feedback provides details of how you can provide your feedback to our draft GN21 plan.</td>
</tr>
</tbody>
</table>
2. Background

2.1 About Evoenergy

Evoenergy owns and operates the gas distribution network in the ACT and in the Queanbeyan-Palerang local government area of NSW.

Natural gas, extracted and processed by gas producers in remote gas fields, is transported through high pressure transmission pipelines to local distribution network ‘city gate’ facilities. For Canberra and surrounding areas, these facilities are located at Watson and Fyshwick. There, the gas pressure is lowered from transmission pressure and the gas is injected into Evoenergy’s network. We then transport the gas through our distribution network to our customers’ homes and businesses, where gas usage is measured through gas meters.

Energy retailers operating in the network area purchase our distribution services and combine them with the other components in the supply chain, such as the purchase of wholesale gas, to deliver a final gas service to consumers.

In the total supply chain—from the initial gas production through to energy retailers—Evoenergy’s services make up only around 25 per cent of the retail gas bill for an average residential customer in the ACT. Evoenergy’s role in the gas supply chain and the contribution of each part of the supply chain to a typical household gas bill is shown in Figure 2.1.

In addition to distributing gas through our network, we also connect new customers to the network, respond to emergencies, read meters and receive and resolve customer enquiries.

Figure 2.2 provides some facts about the network and its operation.
Gas supply chain

Gas production
Gas is sourced from gas fields and processed for transportation.

Gas transmission
High pressure pipelines transport gas to large industrial customers, LNG plants, gas powered electricity generators and city gates.

Gas distribution
At city gates, gas pressure is lowered and gas is injected into local distribution networks for transport to customers.

Energy retail
Energy retailers buy gas from gas producers and pipeline capacity from gas transmission and distribution businesses to supply customers.

Gas customers
Typical annual household gas bill**

$1,727

Contribution to typical ACT gas bill

42%

9%

25%

22%

2%

Other*

Offshore gas platform

Onshore gas platform

Gas processing plant

Large industrial customer

Gas powered generator to electricity market

City gate

LNG plant and export to Asia

Authorised or licensed energy retailers

Residential

Small industrial

Commercial

Figure 2.1: Gas supply chain and contribution to a typical residential gas bill

* Other costs include costs associated with storage and the costs of participating in AEMO-operated Wholesale markets

Our network delivers around 8,000 terajoules of gas each year—equivalent in energy to over 18 million 9kg LPG gas bottles! It is one of the most reliable energy networks in Australia with reliability at over 99% in 2019.

To operate and maintain the network in 2019, there were:

- 50 full time employees in Canberra
- 5–20 contractor employees (depending on work program activity)
- Over 250 customer callouts responded to within 30 minutes
- Over 600,000 meter reads

Our gas network has:

- over 150,000 customer connections
- over 4,000 kilometres of mains pipeline
- 95 district regulation stations
- 7 high pressure gas receiving/pressure reduction stations
2.2 Regulatory framework

The AER is responsible for economic regulation of Evoenergy and most other energy distribution businesses in Australia. This means the prices we charge for distribution network services are approved by the AER.

Every five years we submit a regulatory proposal (in this case, our GN21 plan) to the AER. The proposal sets out our plans for the network, estimates of how much we will spend implementing them, how much revenue we require and the proposed prices we plan to charge to recover this revenue.

As part of assessing our GN21 plan, the AER will consider a range of factors including:

- the extent and quality of customer engagement we have undertaken during in developing the plan;
- evidence that what we are proposing reflects the outcomes of that engagement process; and
- that our approach complies with the requirements set out in the National Gas Law and the National Gas Rules.

The AER will either approve our proposal or specify changes we must make. Once approved, we must set prices for our services in line with the AER’s decision.

Central to our planning, and the AER’s decision on our plan, is the National Gas Objective as set out in the National Gas Law, which is:

“to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.”

A key regulatory assumption is that “[a] service provider should be provided with a reasonable opportunity to recover at least the efficient costs [it] incurs” in providing services. An important issue for Evoenergy in the current policy environment (see section 3) is that there is a real possibility that gas network assets will become obsolete before the end of their engineering useful lives. This GN21 draft plan goes some way towards addressing this risk by assuming shorter lives for new assets, and assuming no roll out of the gas network into new ACT developments.

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1 National Gas (South Australia) Act 2008, as adopted in the ACT
2 National Gas Law, Section 24–Revenue and pricing principles.
3.1 Leading the way on climate change action

The ACT Government has legislated to achieve net zero greenhouse gas emissions for the ACT across all sectors by 2045, with a number of interim targets set along the way. The ACT Government’s 2016 legislated target of sourcing 100 per cent renewable electricity in the ACT by 2020 was achieved in 2019.

In September 2019, the ACT Government released its Climate Change Strategy 2019–25. The strategy reflects the need for urgent action to reduce greenhouse gas emissions and outlines the work currently underway and planned to investigate opportunities for embedding climate emergency considerations across government operations and decisions.

The ACT Government has committed to three actions to reduce emissions from gas, as set out in Table 3.1. Timeframes have been stipulated by the ACT Government’s Environment, Planning and Sustainable Development Directorate.

Decarbonising the network will require a multifaceted approach that factors in major strategic, technical, social and operational considerations. These issues must be considered carefully and include thorough community consultation; and quantified costs and benefits of alternative options and how the costs associated with the transition will be funded.

As we work with the ACT Government to achieve net zero emissions by 2045, we must continue to provide safe, secure, reliable and affordable energy services.

### Table 3.1: ACT Government actions to reduce emissions from gas

<table>
<thead>
<tr>
<th>Action No</th>
<th>Action</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.3</td>
<td>Amend planning regulations to remove the mandating of reticulated gas in new suburbs</td>
<td>By 2020</td>
</tr>
<tr>
<td>4.4</td>
<td>Conduct a campaign to support the transition from gas by highlighting electric options and savings opportunities to the ACT community</td>
<td>From 2020</td>
</tr>
<tr>
<td>4.5</td>
<td>Develop a plan for achieving zero emissions from gas use by 2045, including setting timelines with appropriate transition periods for phasing out new and existing gas connections</td>
<td>By 2024</td>
</tr>
</tbody>
</table>

Source: ACT Government, ACT Climate Change Strategy 2019–25, p.10
3.2 Potential future pathways for achieving net zero emissions

When we consider how our gas distribution network will meet the region’s future energy needs and achieve the ACT Government’s 2045 net zero emissions target, there are broadly three potential pathways:

- a gradual transition away from gas, with all of the region’s energy needs being met by renewable electricity by 2045;
- continuing to use the gas network with a gradual transition away from carbon-emitting natural gas to renewable gas options; or
- a ‘hybrid’ of the above two pathways, where renewable electricity becomes the preferred energy source but the existing gas network continues to be utilised to distribute renewable gas, such as hydrogen.

These pathways are discussed in more detail in Box 3.1. There may also be other alternatives or combinations that come to light as we consider the future of our energy networks.

Box 3.1 Potential future pathway scenarios

Meeting the region’s energy needs with renewable electricity only

This pathway would involve the gradual disconnection of all gas customers until the network becomes inactive by 2045. As customers disconnect from the gas network, their energy needs would be completely met by renewable electricity.

Without a gas network, the demands on the electricity network would increase significantly, as around 75 per cent of all households in Canberra use gas. As shown in the figure below, each year, gas provides over 40 per cent of Canberra’s total energy needs. In winter, this increases to between 55 and 60 per cent—providing more energy than electricity.

Figure 3.1: 2018 ACT energy demand (GWh) showing gas and electricity use over the year, including winter peak demand

![Graph showing energy demand](image-url)
Transferring residential customer load to electricity for all their energy needs would significantly increase the demand on the electricity network. This would require substantial investment to upgrade capacity of the electricity network and would leave our relatively young gas network and customers’ appliances unused. This would come at a high cost to consumers. In addition, this pathway would leave a large proportion of Evoenergy’s existing gas network investment unrecovered.

**Gradually transition ACT gas supply to renewable gas**

This pathway would see the continued use of the gas network but the supply of natural gas would be gradually replaced with renewable gas.

Reticulated gas supply was first made available in the ACT in 1982 and the network has been progressively expanded since. Most gas network assets have a long life (50–80 years), so Evoenergy’s gas network still has a considerable amount of useful life remaining.

Renewable gas, supplied over the existing gas network, has the potential to play an important role in the net zero emissions future. Renewable gas is a combustible fuel gas that is obtained from renewable sources and does not add carbon to the atmosphere. Renewable gas is greenhouse gas neutral.

Three examples of renewable gas options are:

- hydrogen: produced when renewable electricity is used to split water into hydrogen and oxygen via electrolysis. This renewable hydrogen then becomes a combustible fuel gas;
- bio-methane: extracted from waste streams that would otherwise go to landfill or from existing landfill sites;
- renewable hydrogen and carbon dioxide: combined to make renewable methane; or
- a combination of all three options.

These renewable gas options are proven technologies overseas and Evoenergy is currently working in partnership with the Canberra Institute of Technology, Australian National University and Deakin University to research and test the use of hydrogen and bio-methane in the existing gas network.

### 3.2.1 What is the best pathway to net zero emissions for our region?

In short, we don’t know yet. While there is a common goal of achieving net zero emissions by 2045, we need to first determine the pathway that has the lowest possible cost and impact. This is a complex issue and assessing the options to determine the best way forward requires thorough consideration of the long term practicalities, costs, benefits and impacts of each scenario. This will take time.

We support the ACT Government’s commitment to develop a plan for achieving net zero emissions from gas use by 2045. However, we think it is premature for this to include transition periods for phasing out existing gas pipes and connections which will be needed if renewable gas is determined to be the right course of action.

Consistent with the feedback from our consumers of the need to reach a better understanding of options and costs, we will continue to work closely and collaboratively with the ACT Government, industry, climate change experts, and the community to comprehensively understand the options as we work to prepare the roadmap for achieving net zero emissions by 2045.
3.3 Setting our GN21 plan in the midst of uncertainty

While we continue over the next five years to prepare a roadmap for achieving net zero emissions by 2045, we must now set our GN21 plan to cover a period of uncertainty. We must make assumptions within the plan to estimate the operating and capital costs of the business as well as our expectations of what the demand for gas will be, both in terms of customer numbers and customer usage.

It is clear our plan cannot simply reflect a ‘business as usual’ situation, however until we have clarity on how we will meet the target, we have made the following key assumptions:

- reflecting the ACT Government’s strategy to remove the mandating of reticulated gas in new suburbs, the gas network will not be expanded into new suburbs in the ACT;
- that following campaigning by the ACT Government for a transition away from gas, we will see a significant reduction in average gas usage per customer and an increase in gas disconnection rates beyond historical trends; and
- that we will need to accelerate depreciation for new capital expenditure by adjusting the asset lives of new investment.

An alternative scenario would be a plan that more closely reflects ‘business as usual’, with continued expansion of the gas network into new ACT suburbs and a more muted reduction in gas volumes. We do not consider such a scenario to be consistent with likely outcomes of the ACT Government’s climate change strategy or the sentiment of ACT consumers, whose feedback included strong support for achieving environmental sustainability. However, in the interest of transparency and for completeness, we have included key components of our draft plan under this alternative scenario in section 5.2.6.

We are seeking your feedback on the assumptions we have made on how ACT Government policy will impact the use of gas in the ACT and surrounds. What are your expectations of how the use of gas will change in the next 5 – 10 years?
4. What we heard from our consumers

Evoenergy has a long-standing commitment to the local community we serve. We strive to operate every day with our consumers’ interests at heart. For us, engagement is about two-way communication with stakeholders.

In preparing our GN21 draft plan, we tapped into existing community relationships and a range of additional channels to understand our consumers’ expectations and to ensure we are responding to the challenges and opportunities they identify.

Table 4.1 below provides a high level summary of the key themes we heard through our engagement and how we are responding. We provide more information on the key themes in section 4.2.
What we heard | How we are responding to what we heard
--- | ---
**Environmental sustainability**
Supporting environmental sustainability is a key driver for many consumers. This includes some support for halting the expansion of the gas network in new ACT suburbs. | In the short-term, we are responding to consumer feedback on environmental sustainability by assuming that the gas network will not be extended into new ACT suburbs while we develop our transition roadmap for achieving net zero emissions by 2045.
We have also assumed that average gas usage per customer will gradually decline, reflecting consumer sentiment and the expected response to ACT Government policy.
Over the longer-term, our roadmap will set out a pathway for achieving net zero greenhouse gas emissions consistent with the ACT Government’s legislated target.

**Research into options and costs**
Consumers want to gain a better understanding of the costs associated with various future energy options and how to transition to them.
Consumers want us to undertake research and invest in understanding what the future energy options are. | We will continue to investigate the options and their costs as we develop our roadmap to 2045, and share what we find with stakeholders.
In the meantime, we have focussed in this draft plan on minimising our costs, and we will continue initiatives, such as our Hydrogen Test Facility in Fyshwick.

**Transition impacts**
Consumers are concerned about impacts that a transition away from natural gas would have on their appliances and costs that would be incurred in replacing or upgrading these appliances. They want continuing reliable services during the transition. | In the short-term, our draft plan reflects our commitment to investing only what we need to maintain the safety and reliability of gas supply as we develop a transition roadmap.
Based on consumer feedback, an important part of our roadmap will involve working with stakeholders to understand and fully consider transition impacts.

**Affordability and tariffs**
Consumers are concerned about affordability and are seeking reduced network charges. These views were often coupled with feedback that consumers seek price stability and certainty related to their gas supply. | In the short-term, we have focussed on minimising costs so that our draft plan delivers stable prices across 2021-26 access arrangement period. (See section 5 for more details on bill impacts.)
Over the longer-term, as we develop our roadmap, the costs of achieving the net zero emissions target will be a key consideration in determining the future pathway.

**Support for vulnerable customers**
Consumers advocate support for vulnerable consumers, including through all elements of a transition. | We will work with stakeholders to understand and consider the needs of vulnerable customers and what we can do to help as we develop our transition roadmap.

**Communication and ongoing involvement**
Consumers want to be kept informed and involved at all stages of the research, planning and transition towards a net zero emissions future. | Our consumer engagement program to date and this draft plan are part of our mission to communicate with and involve our consumers. We will continue to keep consumers informed and involved throughout the 2021-26 period and as we develop our roadmap to 2045.
4.1 How we engaged with consumers

Evoenergy’s GN21 plan consumer engagement strategy consists of three main phases as set out in Figure 4.1. This section outlines the activities undertaken in the understanding phase and what we heard from our consumers during this phase.

Figure 4.1 GN21 plan engagement phases

<table>
<thead>
<tr>
<th>Phase 1: Understanding</th>
<th>Phase 2: Consulting</th>
<th>Phase 3: Embedding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding</td>
<td>Consulting</td>
<td>Embedding</td>
</tr>
<tr>
<td>consumer values</td>
<td>consumers on the</td>
<td>consumer feedback</td>
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<tr>
<td>around gas to inform</td>
<td>draft plan</td>
<td>in the final plan</td>
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<tr>
<td>the draft plan</td>
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<td>and evaluating</td>
</tr>
<tr>
<td></td>
<td></td>
<td>our performance</td>
</tr>
</tbody>
</table>

4.1.1 Engagement activities

To encourage widespread participation, our engagement activities were designed to suit the level of interest and available time of the people taking part in the conversation—from participating in a short online survey through to being a part of our Citizens’ Jury.

Another key part of our engagement approach was to create and employ activities that were not always specific to one stakeholder group, including Evoenergy’s Energy Consumer Reference Council (ECRC) and the Citizens’ Jury. Having a diverse group of participants in the room encouraged more robust conversations and enabled cross pollination of ideas and feedback.

Table 4.2: Summary of stakeholder groups engaged and engagement tools used

<table>
<thead>
<tr>
<th>CITIZENS’ ENGAGEMENT ACTIVITIES</th>
<th>Household consumers</th>
<th>Small to medium business consumers</th>
<th>Vulnerable consumers</th>
<th>Major customers</th>
<th>ACT Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citizens’ Jury</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>ECRC meetings</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>GN21 web page and social media</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>ACTGOSS partnership</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Energy Matters Gas 2019</td>
<td></td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Actsmart Business Expo</td>
<td></td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Surveys</td>
<td></td>
<td></td>
<td></td>
<td>●</td>
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</tr>
</tbody>
</table>
4.1.2 Citizens’ Jury

The centrepiece of our engagement program was our Citizens’ Jury which provided advice to us on consumer views and expectations on the future of gas network.

Representatives of our local community were randomly selected through an independent recruitment process to create a Jury that reflected the diversity in our community.

Over 24,000 invitations were issued across the ACT, Queanbeyan and Bungendore communities.

The final panel makeup is shown in Figure 4.2 below. One of the hallmarks of a Citizens’ Jury is that it brings together a broad and diverse range of people to ensure a mixture of knowledge, background, and experience in the membership.

The Jury ran over two weekends in October and November 2019, totalling more than 750 hours of deliberation by Jury members.

![Figure 4.2: Composition of the Citizens’ Jury](image-url)
The jury was given the following question to consider:

**The ACT Government has legislated for net zero greenhouse gas emissions by 2045.**

**Evoenergy is committed to transform the gas network to meet this target. As part of this transition, what are our consumers’ expectations of the service provided to them?**

The Citizens’ Jury, received presentations from a range of individuals and organisations to help the jurors understand local, national and international issues relating to gas.

The jurors’ deliberations produced a [Citizens’ Jury recommendations report](#) which has been used to inform the development of this draft plan. It will also be used to inform Evoenergy’s medium and long-term planning for a network that meets the ACT’s net zero emissions target.

### 4.1.3 Energy Consumer Reference Council

The ECRC is an independent forum made up of representatives of the ACT community that provides considered input into the operations and long-term planning of Evoenergy.

The ECRC members also play an ambassadorial role distributing information and promoting participation in Evoenergy engagement activities to their representative communities and sectors. Current membership is shown in Figure 4.3.

During 2019, the ECRC spent more than 10 hours over four meetings considering information about the GN21 plan and providing their feedback to Evoenergy.

Figure 4.3 Current membership of the ECRC

- ACT Council of Social Services (ACTCOSS)
- ACT Council on the Ageing
- Engineers Australia
- Canberra Business Chamber
- Conservation Council ACT Region
- Urban and Regional Futures (CURF)
- Better Renting Representative of the Community Councils
- Australian National University Property Council (ACT)
- Master Builders Association
- Business sector (infrastructure investment)
- Business community (small business representative)
- Business community (large customer representative)
- Construction industry
- Residential customers/community with a focus on environment
- Residential customers/community
- Community sector
4.1.4 Web page and social media

A dedicated web page for the GN21 plan was created on the Evoenergy website. This webpage contained information on the various ways people could provide their feedback and provided further information on the transition to a net zero emissions gas network.

4.1.5 Energy Consumer Advocacy Workshop

The ACT Council of Social Service (ACTCOSS) was commissioned by Evoenergy to run an Energy Consumer Advocacy Workshop as part of ensuring that energy consumers in the ACT and Queanbeyan-Palerang region who are on low incomes, experiencing disadvantage, or at risk of hardship can actively contribute to the GN21 process.

The workshop brought together Evoenergy representatives, energy consumer experts, and representatives from a range of community organisations that work with and/or represent people within the region who are living on low incomes, experiencing disadvantage, or at risk of hardship.

The workshop provided an initial opportunity to learn about the GN21 process and gain insights from experts with extensive experience as energy consumer advocates, including experience in engaging in other energy network planning processes.

4.1.6 Energy Matters 2019

Energy Matters is Evoenergy’s flagship event for our major customers and allows us to consult on a range of topics.

The topic for the 2019 event was the future of the gas in the ACT. The event included presentations by Evoenergy, the ACT Government and the University of Canberra. A facilitated workshop allowed for feedback on Evoenergy’s expenditure and the future of gas in the ACT.

4.1.7 Actsmart Business Expo

Our display at the Actsmart Business Expo, an ACT Government event designed to showcase businesses with a sustainability focus, enabled engagement with individuals from the small and medium sized business sectors, many of whom completed our survey.
4.1.8 Online survey

We ran an online survey from September to November 2019 and received 118 responses. The survey sought to understand consumer values on gas and identify information to help shape the draft strategy around future focus areas for Evoenergy and priority areas for our consumers.

Figure 4.4 Survey fast facts:

Respondents were:

56% Male 43% Female 1% Other

respondents were spread across age groups and geographic locations.

10% of respondents identified as having a disability or being low-income earners.

75% owned their own property
25% rented
20% were landlords

6% were small to medium business owners

60% + of respondents used gas for cooking, heating and hot water;
60% of respondents expected to use the same or more gas in the next 5 to 10 years; and
40% of respondents expected to use less or no gas in the next 5 to 10 years.
4.2 Key themes of what we heard from our consumers

This section highlights what we heard during our engagement activities. As discussed in Box 4.1, our engagement program corresponded with a time of heightened interest and discussion around climate change action in the ACT and surrounding region. Over 50 per cent of the feedback we received related to the longer term future of the gas network and concerns relating to the transition issues. While some of this feedback will not have a direct impact on our GN21 plan, it will prove invaluable as we work to develop a roadmap to 2045.

Box 4.1 Engagement environment

The timing of the understanding phase engagement aligned with the release of an update to the ACT Government’s Climate Change Strategy 2019–25, as discussed in section 3.1.

Release of the climate change strategy significantly increased community discussion relating to the future of gas in Canberra. It was clearly a significant topic for many stakeholders, becoming a dominant feature in engagement feedback. Questions arose that related to planning, timing, future options and a desire to understand what these options mean for consumers.

The engagement environment that framed our consultation was very different from previous regulatory periods. Consequently, it was important that we tested previous consumer feedback to see if it still held true against this new backdrop.
Environmental sustainability

Supporting environmental sustainability was a key driver for some respondents. It was highlighted by nearly 35 per cent of survey respondents as the number one thing that Evoenergy should be focusing on as we develop a transition roadmap for net zero emissions by 2045.

This feedback was more prevalent than reducing network charges and maintaining reliable supply. It was suggested the best way to achieve favoured environmental outcomes would be to electrify the network. Feedback relating to environmental outcomes was not often linked to renewable gas options.

An example of environmental sustainability being important to many consumers is the discussion and views put forward on whether or not the gas network should be expanded into new ACT suburbs. This followed the ACT Government’s announcement that the existing requirement for gas infrastructure to be installed in new property developments would be removed, allowing developers to decide if they wanted to install the infrastructure. This announcement generated a large amount of discussion and feedback about whether Evoenergy should continue to expand network infrastructure into new developments.

Halting the expansion of the gas network into new suburbs was supported by some consumers as it would prevent potentially unnecessary spending until a future direction is decided. However, some consumers voiced concern about the practicality and cost of potential retrofitting in the future.

Major customers told us they wanted to know how developers in new estates would make the choice to install gas or multi-energy connections if this was not mandated. The Citizens’ Jury was unable to reach agreement on whose role it was to decide that Evoenergy should cease installing gas infrastructure in new developments.

Residents’ views

“Do not connect gas to new suburbs.”

“Restrictions on gas in new housing is a strategically short-sighted approach as households must have the option of both electricity and gas to cover unexpected longer-term breakdowns in service delivery of either gas or especially electricity.”

Conflicting feedback from online survey respondents

Citizens’ Jury recommendations

Recommendation 4: Evoenergy to advocate strongly to the ACT Government to cooperate with other jurisdictions, with a view to creating an emissions offset market for gas similar to that in operation for electricity. This recognises that climate change requires a national perspective.

Supplementary recommendation 2: That Evoenergy suspend expanding the gas network into new developments until low emissions sources of gas become available. This is for the purpose of limiting emissions in the immediate period while work continues on alternative energy options. Evoenergy can thus contribute to the immediate goal of reducing emissions in the 2021-26 period.

The jury did not reach consensus on:

- whether this was ACT Government or Evoenergy’s role to make this decision; and
- whether this was in the jury’s remit.
Research into options and costs

Many stakeholder groups—including the ECRC, Citizens’ Jury and major customers, wanted to gain better understanding of the costs associated with different future energy options and how to transition to them.

Consumers told us they had a strong desire to fully understand the options to reaching net zero greenhouse gas emissions by 2045 and what each option would involve. While feedback was also received that indicated support for renewable gas or electrification, there was no clear preference across the board.

Feedback was also received that Evoenergy should be undertaking research and investing in understanding the range of future energy options.

Around 76 per cent of survey respondents agreed or strongly agreed Evoenergy should invest in gaining a better understanding of renewable gas.

The Citizens’ Jury recommended Evoenergy actively seek to be a ‘research partner’ in the process. This included specific suggestions about understanding overseas renewable gas examples, through to undertaking research specific to Canberra and the region.

“It will be important to ensure there is a just transition to the 2045 net zero emissions target to ensure that gas consumers on low incomes or at risk of hardship do not bear a higher proportion of costs in terms of either staying on or moving off gas.

Ideally, these households will be ‘winners’, and in a better position than at present as a result of the decisions that are made.”

Online survey respondent

Citizens’ Jury recommendations

Recommendation 1: We expect that Evoenergy will work proactively and collaboratively to invest in and pursue funding opportunities for its role to become a research partner, including but not limited to:

• working with partners such as ActewAGL, ACT Government, Icon Water and research institutions to explore new/better options; and
• consider new models for integrating waste management emissions into the gas network.

Recommendation 6: A full cost benefit analysis for each option (full electrification or continuation of the gas network) be considered reflecting the community cost drivers, including but not limited to:

• infrastructure cost (new and retiring);
• household refit costs; and
• social and environmental benefits.
Transition impacts

Consumers were concerned about impacts that a transition away from natural gas—either to renewable gas or electrification—would have on their appliances and costs that would be incurred in replacing or upgrading these appliances. This was particularly noted amongst retirees responding to the survey.

Major customers were looking for certainty relating to diversity of supply and wanting to ensure that their supplies would remain reliable, particularly during a transition. This was echoed by small and medium business respondents who expressed concern about transitioning away from their current uses of gas.

The need for support and assistance during the transition period was articulated by major customers and formed part of the Citizens’ Jury recommendations.

The Citizen’s Jury also recognised the risk of stranding some consumers if a mass exodus from the gas network were to occur. Evoenergy considers that its proposal to shorten asset lives for the depreciation of new investment goes some way toward bringing forward the recovery of network costs, thereby reducing the cost burden on customers in the future.

Citizens’ Jury recommendations

Recommendation 5: Evoenergy, in consultation with relevant parties (including Government, retailers and consumers), to develop consumer-centred policy to protect consumers from unexpected transition issues; consumers being stranded if critical mass exodus occurs. The purpose of this recommendation is to give consumers certainty.

Recommendation 8: Continue to maintain infrastructure and value of infrastructure and make a decision on the future of the gas network at the end of the 2021-26 regulatory reporting period. This time period is to provide direction to consumers and the energy market.
4.2.1 Affordability and tariffs

Consumers are concerned about affordability and are seeking reduced network charges. This feedback was received across household consumers, vulnerable consumers and small to medium business consumers.

These views were often coupled with feedback that consumers seek price stability and certainty related to their gas supply.

Over 50 per cent of survey respondents felt the current price of gas was not reasonable and nearly 20 per cent felt reducing network charges should be a prime focus for Evoenergy going forward.

Major customers indicated concerns about pricing that related to the affordability of transitioning appliances and networks to a changed energy source.

Consumers told us consumer network pricing plans (known as tariffs) work best when they are:

- simple and easy to understand;
- structured to promote efficient use of the gas network; and
- communicated clearly so consumers understand what they mean for them.

4.2.2 Support for vulnerable customers

Consumers also valued support for vulnerable consumers. This support ranged from delivering lower network charges, to providing support or subsidies to vulnerable customers to meet network charges. Consumers also spoke of the importance of supporting vulnerable customers through all elements of a transition.

The Citizens’ Jury recommendations included consideration of a ‘fair and equitable’ transition and development of consumer-centred policy to protect vulnerable customers. The ECRC also advocated better support for vulnerable customers.

Citizens’ Jury recommendation

Recommendation 7: In the context of either decommissioning or alternative uses of the network, Evoenergy to negotiate with ACT Government to arrive at a fair and equitable outcome for the ACT and NSW community.

4.2.3 Communication and ongoing involvement

The uncertainty around the future of natural gas in the ACT also resulted in heightened levels of feedback requesting that consumers be kept informed at all stages of research, planning and transition. This request was repeatedly heard from household consumers and vulnerable consumers, as well as from small, medium and large business customers.

The importance of ensuring that all consumers can understand the impacts of the pricing proposal was highlighted through engagement with vulnerable consumer advocates, as well as household consumers. Evoenergy has worked to ensure that the content of this draft plan is presented in terms that are easy to understand and that impacts on consumers are easily identified.

“We need to understand the viability of gas usage and whether we need to plan on replacing gas systems.”

Online survey respondent
Do these themes reflect your views and priorities as we plan for the 2021–26 access arrangement period and beyond?

Citizens’ Jury recommendations

**Recommendation 2:** Evoenergy and the ACT Government will jointly collaborate with other stakeholders to develop a communication plan to inform the ACT and NSW consumers about the transition.

**Recommendation 3:** Evoenergy to develop a communications plan which will provide comprehensive and timely information to the community using a variety of methods over the lifetime of the transition, including, but not limited to:

- a reliable, constant reasonably affordable/cheap, environmentally friendly source of power;
- maintain choice – not trapped by limited options (not ACT only);
- ensure information about required appliances is readily available and retro-fitting is straightforward;
- meeting peak flow needs;
- protection of vulnerable customers;
- impact on property values and availability of rental housing stock;
- impact on strata is understood as is the ability and barriers to transition;
- responsible management of community assets; and
- benefits to consumers.
We are acutely aware of the pressure energy prices put on household and business budgets for many of our customers. Throughout our engagement program we heard our consumers concerns relating to their gas bills and the potential costs associated with transitioning to zero net emissions, particularly for vulnerable customers.

In response to these concerns, our plan involves minimising expenditure where possible to deliver stable network prices over the five year plan period. However, our distribution network charges account for only around 25 per cent of the average retail residential gas bill and so, while our plan will have some impact on the average residential gas bill, there are several other elements that will influence the level of your gas bill over the five year period of the plan (see Figure 5.1).

In this section, we first present the impact our draft plan is likely to have on the average residential gas bill and then provide the details of the total revenue we need to cover our costs. We finish with a short discussion of our proposed tariff structure.

Figure 5.1: Breakdown of a typical residential retail gas bill

*Other includes costs associated with storage and the costs of participating in AEMO-operated wholesale markets
5.1 Bill impacts

To provide an indication of how our proposed network charges are likely to impact the average retail bill, we have adjusted the distribution component of the bill and held all other components constant in real terms. In reality, other elements of the retail bill are also likely to vary over the 2021–26 period and impact the final retail bill. However, this analysis is focused on isolating the impact of the distribution component of the bill.

We have adopted the same approach as used by the AER. This involves dividing the annual revenue requirement by forecast usage to arrive at an indicative price path for our distribution network. Figure 5.2 shows the indicative price path for our draft plan over the 2021–26 period.

Figure 5.2: Indicative real price path for the distribution network

We have adopted an average usage assumption of 105.6 MJ per day, which is the average usage for a medium-sized residential customer (a two to three person household) used by Energy Made Easy. We have applied ActewAGL Retail’s 2019–20 standard residential gas retail prices to these volumes to arrive at a starting price for 2019–20. Each year, the distribution component of the bill is adjusted in line with the price path shown in Figure 5.2 above.

As can be seen from Table 5.1 below, the estimated real bill impact is minimal over the 2021–26 period. The average residential bill is forecast to decline by 0.4 per cent in real terms in 2021–22, followed by zero real price changes in the remaining four years.

Table 5.1: Real indicative bill impacts for residential customers

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<td>Distribution component</td>
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<td>393</td>
<td>393</td>
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<tr>
<td>Residual component</td>
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<td>1,155</td>
<td>1,155</td>
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<td>1,155</td>
</tr>
<tr>
<td>Annual change $</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Annual change %</td>
<td>-0.4%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

It is important to note the retail bill analysis above assumes no decline in average usage per customer. In reality, we expect that average usage will decline in response to the ACT Government’s net zero emissions policy and, if this is the case, bills will be lower than estimated in this analysis.
5.2 Our revenue requirement

Our proposed network charges are set to allow us to earn just enough revenue to cover our forecast costs. The AER assesses our proposed network charges against the following ‘building block’ cost categories:

- **return on capital**, which is a return to the asset owners on their network assets;
- **depreciation**, which is the cost of our assets spread over their useful lives;
- **efficient operating and maintenance costs**, including taxes and levies imposed by the ACT Government;
- **a net tax allowance** to cover our corporate tax liabilities; and
- **revenue adjustments**, which captures the penalties or rewards from implementation of the AER’s incentive schemes.

The building block costs are added together to determine our total revenue requirement. This is then spread over forecast volumes to determine gas distribution network charges, as shown in Figure 5.3 below.

This section discusses each of the building block costs in turn and then provides a summary of our total proposed revenue requirement.
5.2.1 Return on capital

The return on capital building block is calculated by multiplying the value of our regulated asset base (RAB) by the rate of return.

**RAB**

Our RAB is forecast to decrease by three per cent in real terms over the 2021–26 regulatory period as shown in Figure 5.4 below. The RAB is calculated for every year of the regulatory period by adding new capital expenditure and deducting depreciation. Our approach to forecasting new capital expenditure is discussed in section 6 and our approach to calculating depreciation is discussed below in section 5.2.2.

**Figure 5.4: Regulated asset base ($ million, real 2020–21)**

RATE OF RETURN

The rate of return is set according to the AER’s rate of return instrument. A placeholder value of 4.88 per cent has been used in this draft plan and will be updated for the latest financial market information prior to submission to the AER.

5.2.2 Depreciation

In the regulatory case, this building block includes a component referred to as depreciation, which is an amount equal to the asset value divided by its expected useful life. In normal operating circumstances, we typically use long asset lives reflecting the assumption that the network will be used for many decades.

We do not consider the current policy environment to be consistent with normal operating circumstances. The ACT Government’s climate change strategy for 2019–25 includes the development of a plan for achieving net zero emissions from gas use by 2045, including an action to set timelines with appropriate transition periods for phasing out new and existing gas connections. While Evoenergy is committed to working with the ACT Government and other stakeholders to develop a transition roadmap for the future of the gas network, including the consideration of renewable gas, the future is uncertain.

If the ACT Government decides to implement policy measures that result in the gas network being phased out, then Evoenergy’s gas network assets will become obsolete before the end of their engineering useful lives. This is particularly the case for new investment, where engineering asset lives can be 50 to 80 years in length—well beyond the ACT Government’s target date of 2045 for achieving net zero emissions. This would leave significant investments unrecovered, an outcome inconsistent with the objectives and principles of the regulatory framework, which seeks to provide businesses with a reasonable expectation that they will recover their costs.
In this environment of uncertainty, we consider it prudent to shorten the useful lives of some new, long-lived assets for calculating regulatory depreciation to reflect the likelihood that they may become obsolete before the end of their engineering lives. We have in this way shortened the lives of three asset groups for new investment. Specifically we have:

- reduced the asset lives for new investment in high pressure mains from 80 years to 50 years;
- reduced the asset lives for new investment in medium pressure mains from 50 to 30 years; and
- reduced the asset lives for new investment in medium pressure services from 50 to 30 years.

The impact of shortening asset lives on the revenue requirement for the 2021–26 period is minimal ($0.7 million).

5.2.3 Operating and maintenance costs

Operating and maintenance costs represent the single largest building block and we have outlined our approach to estimating these costs in section 7.

5.2.4 Tax expenses

We have calculated net tax expenses in line with the AER’s final tax decision and rate of return instrument.

5.2.5 Incentive schemes

Under the regulation framework, network businesses can be subject to one or more incentive mechanisms to encourage efficiency in the provision of services. Such schemes can help us find better ways of delivering services, and reduce costs, which can ultimately benefit customers through better service quality and lower bills.

Currently, Evoenergy is subject to just one incentive scheme for its gas network, the efficiency carryover mechanism (ECM), which applies to operating expenditure. In the 2021–26 period, we are proposing to continue the ECM, and also introduce a new incentive scheme applying specifically to capital expenditure, a capital expenditure sharing scheme (CESS).

EFFICIENCY CARRYOVER MECHANISM (ECM)

Evoenergy is currently subject to an ECM. The scheme provides a continuous incentive throughout the access arrangement period for Evoenergy to achieve operating cost savings. Under the scheme, Evoenergy retains underspends or overspends (relative to the allowed operating cost forecast) for a fixed period of five years, before they are passed to customers (subject to the AER agreeing the costs are prudent and efficient). This results in any savings we make being shared with our customers in a ratio of approximately 70 per cent (customers) and 30 per cent (Evoenergy).

Without the ECM, Evoenergy can only retain any efficiencies for the remainder of the regulatory period. This means that our ability to invest in better ways of delivering service diminishes as the regulatory period progresses. An ECM makes sure that the incentive we receive is the same, regardless of the timing of efficiency gains or losses. It does so by allowing our performance in the current period to impact the amount of revenue we receive in the next.

Schemes like the ECM have a long history of being successfully applied to electricity and gas networks around Australia. We believe that retaining this incentive scheme for the 2021–26 access arrangement period is in the long-term interests of our customers, and will help us to deliver ongoing efficiencies.

CAPITAL EXPENDITURE SHARING SCHEME

Currently, Evoenergy receives a limited incentive to reduce its capital expenditure during the regulatory period. If we spend less than our allowance, we can keep the benefit of doing so until the end of the period. Similarly, if we spend more, we incur any additional funding costs. At the end of the access arrangement period, the benefits and costs are shared with customers (subject to being approved by the AER). However, this creates an uneven incentive over time, where Evoenergy is most incentivised to find savings...
at the start of the period so that we can retain
the benefit for longer, while the incentive falls
to zero at the end of the period.

To provide a stronger and more uniform
incentive to find efficiencies, the AER introduced
a capital expenditure sharing scheme (CESS)
for electricity distributors in 2013. However, until
recently, a CESS has not been implemented for
gas distribution businesses.

In May 2016, Australian Gas Networks (AGN) in
South Australia was the first gas distribution
business to propose a gas CESS to apply
for its 2016–21 regulatory period. AGN’s
proposal was not accepted by the AER, which
considered that a CESS required further
consultation before being applied to gas.

Subsequently, the Victorian gas distribution
businesses initiated an extensive consultation
process on a gas CESS, including with
stakeholders from the AER and Australian
Energy Market Commission (AEMC). The
consultation process identified a general
consensus that the gas incentive framework
would be strengthened by a CESS, subject
to providing appropriate customer service
incentives to ensure service standards were
maintained despite any reductions in capex.

Following this, the AER accepted a proposal
for a gas CESS by the four gas distribution
businesses in Victoria (including Albury
NSW) for the 2018–22 regulatory period.
Jemena Gas Networks in NSW proposed a
similar CESS as part of its proposal for the
2020–25 regulatory period.

The general operation of the CESS
mechanism, as implemented for Victorian
gas distribution businesses, is similar to
the electricity distributor CESS, but with
the addition of a contingent payment
mechanism to reduce payments if service
quality falls below historical targets. In
particular, the CESS works as follows:

- any capex underspends or overspends are
  shared between customers (70 per cent)
  and the network business (30 per cent)
- the scheme applies to capex net of
  contributions and disposals, and
  incorporates adjustments for capex deferrals
  and ex post capex reviews, as well as cost
  pass throughs and capex re-openings; and
- any rewards under the CESS are
  adjusted according to a sliding scale,
  which reduces rewards to zero if service
  performance decreases by a certain
  amount below historical levels.

The scheme approved by the AER in Victoria
helps businesses find efficiencies in capital
expenditure, while addressing concerns
that this might encourage businesses to
reduce investment at the expense of service
standards. An important part of achieving
this objective is identifying ways in which
network health can be measured. Any such
performance measures should be strongly
linked to service outcomes that matter most
to customers and are within the distributor’s
control. These are likely to vary depending on
the circumstances of each distribution network.

We intend to propose a CESS for the ACT
and Queanbeyan–Palerang network as part
of our GN21 plan. We believe that this is in the
long term interests of customers and will help
us further improve our efficiency, keeping
downward pressure on bills. However, further
work still needs to be done to determine
how to best measure network performance,
reflecting the preferences of our customers,
and our unique operating environment.

Given the policy uncertainty over the future
of gas in the ACT, we are proposing that any
capital expenditure associated with new
connections should be excluded from the
operation of the scheme. This will help to
ensure that there is no reward or penalty if
the expenditure on new connections is lower
or higher than forecast.

We plan to engage with stakeholders,
including customer groups and the AER, over
the next few months to identify what other
factors we should take into account when
introducing a CESS, including the appropriate
measures of service performance.

What are your views on
our proposal to adopt a
CESS? What factors should
we take into account in applying
the scheme to the ACT? Email us at
consumerengagement@evoenergy.
com.au if you would like to help shape
the measures of service performance
for the CESS.
5.2.6 Summary of revenue requirement

The forecast value of each of the building blocks discussed above and the resulting revenue requirement are summarised in Table 5.2.

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<tbody>
<tr>
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<td>18.08</td>
<td>17.88</td>
<td>17.55</td>
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<td>59.93</td>
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<td>62.56</td>
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Table 5.2: Revenue requirement building blocks

Our proposed revenue requirement is five per cent¹ below the AER’s final decision for the current five year period, mainly due to recent AER decisions on the rate of return and taxation (see Figure 5.5). On a per customer basis, our proposed revenue requirement is 10 per cent lower than the AER’s final decision for the current period, as total customer connections are forecast to be higher.

In addition to forecasting the building block costs, we must also determine how revenue is recovered in each year of the 2021–26 period. We are proposing to pass on all of the real price reduction to customers in the first year of the regulatory period, followed by zero real price changes in the following years. Given the feedback we have heard from our customers around affordability concerns, we believe it is appropriate to pass on lower prices to our customers as early as possible.

Figure 5.5: Difference between 2016–21 AER final decision and GN21 draft plan revenue requirements ($millions, 2020–21)

¹ In unsmoothed terms.
Revenue requirement under alternative scenario

As outlined in section 3.3, we also considered a scenario closer to ‘business as usual’ under which the gas network continues to grow in new ACT suburbs. Under this scenario, relative to our proposed scenario discussed above:

- we would need to invest an additional $23.5 million in capital;
- our operating costs would be $2.9 million higher; and
- there would be over 11,000 more customers connected to the gas network by the end of 2025–26 and average consumption per customer per year would be about 1 GJ higher.

The outcome of this would be that our total costs would be higher. The final price impact would depend on the volume assumptions adopted under this scenario. If we assumed that the consumer response to the ACT Government’s climate change strategy was more muted than in our proposed scenario then this alternative scenario could result in slightly lower prices.

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<tbody>
<tr>
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<td>18.18</td>
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<td>60.76</td>
<td>62.61</td>
<td>64.39</td>
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Table 5.3: Revenue requirement building blocks under an alternative scenario

5.3 Tariff structure

Our proposed tariff structure for the 2021–26 access arrangement period has been designed to offer more simplified and streamlined options for our residential and business customers.

We split our customers into two main groups: volume customers and demand customers. The volume group includes our residential and small business customers who are charged according to the volume of gas they use, while the demand group includes our largest commercial customers who are charged based on the capacity they require (see Figure 5.6).

Evoenergy’s network gas tariffs for these groups are made up of the following components:

- a fixed supply charge—an annual charge which customers pay for their gas connection;
- a variable usage charge—a charge that applies to the volume of gas a customer uses (typically measured in dollars per gigajoule), or in the case of large (demand) customers, the customer’s required capacity. Evoenergy has declining usage rates, meaning the price per unit falls the more gas is used. This helps encourage utilisation of the gas network, and minimise the bill impacts of higher usage during peak times of the year; and
- ancillary charges—fees for specific services that may be needed by a customer, including special meter reads or disconnections.

Most customers pay a fixed and variable charge, and benefit from the declining usage charges for higher levels of gas usage. A smaller number of customers pay ancillary charges depending on their specific circumstances and requirements.

We propose to keep the same general tariff structure for our 2021–26 access arrangement.
5.4 Simplifying tariffs

For the 2021–26 access arrangement period, Evoenergy is proposing to simplify its tariffs by removing those which have had low rates of up-take, partly due to the fact that gas retailers did not reflect the tariffs in their retail offers, and the broader policy environment in the ACT which has impacted investment in gas generation facilities. We plan to abolish the unused tariffs. This will reduce complexity and administrative costs associated with managing tariffs with very few customers, help make Evoenergy’s tariffs easier for customers to understand, and better align gas network tariffs to existing retail offers.

These changes are not expected to have an impact on end-customers given the network tariffs are not currently reflected in retail tariffs, and there is only a very small number of customers currently assigned to the tariffs proposed to be abolished.

Simplifying charging arrangements for demand customers

At the start of the 2021–26 period, Evoenergy proposes to reset demand customers’ chargeable demand to the highest of:

- the contracted maximum daily quantity;
- 10 times the contracted maximum hourly quantity; and
- the ninth highest withdrawal over the period 1 July 2020 to 30 June 2021.

This will provide all customers with the same opportunity to reset their chargeable demand at the commencement of the new regulatory period, and prior to the introduction of new charges on 1 July 2021. We will work with retailers and our large customers to encourage them to maximise the benefits of the reset.

We will also relax the requirements for customers to lower their chargeable demand, and remove some of the conditions currently in place. These changes include:

- allowing customers to request a lower chargeable demand if there is a significant change in their demand, rather than a ‘permanent and material’ change currently;
- removing the 10 per cent materiality threshold for resets; and
- simplifying the requirements surrounding the timing for the request.

These changes are expected to help streamline and simplify charging arrangements for our large customers.

We are seeking your views on our proposed approach to simplifying tariffs.
6. Our capital expenditure program

Capital expenditure (capex) is spending on the building and refurbishment of assets. We have developed our gas network capex program for the next five years taking on board consumer feedback, by minimising expenditure and prioritising projects focussed on the safety and reliability of the network.

Our capex program can be broken down into four distinct categories. Each category contains a suite of measures or projects that are tailored to address a variety of consumer and regulatory requirements. These investment categories are outlined in Figure 6.1.

**Figure 6.1: Capex investment categories**

- **Market expansion**
  This relates to spending on new services, mains, and meters to connect new customers. These include new homes, medium/high density residential developments, and commercial and industrial customers. Market expansion lowers costs for all consumers by spreading fixed costs across a larger number of consumers.

- **Capacity development**
  This is expenditure on services, equipment, and facilities to improve the integrity of services provided to ensure the quality and reliability of supply. In particular, the gas network may require strengthening in order to ensure continuity of supply to greenfield developments in the Canberra region, such as the Molonglo Valley district.

- **Stay in business**
  This expenditure involves replacing assets that are no longer performing and the upgrading of network infrastructure including the rectification of inlet piping to improve safety of services, and the replacement of meters as they reach the end of their useful life to ensure that they remain accurate and within regulatory requirements.

- **Non-system capex**
  This is spending on technology services and facilities which enhance or maintain Evoenergy’s capabilities to deliver gas pipeline services. An example of previous expenditure includes developing Evoenergy’s Geographic Information System (GIS) through connection of data to mobile devices (including use of GPS integration at the point of data capture). No expenditure is forecast under this category for the next regulatory period.
6.1 Planning our capital program in the midst of uncertainty

Section 3.3 of this draft plan discusses the uncertain future of our gas network as we consider the best approach to achieving net zero greenhouse gas emissions by 2045.

In response to these changing policy environment, we have tailored our capex forecasts based on our expectations of how gas usage trends and ACT Government policy will impact the future of the network.

We estimated the costs of our routine programs (such as connecting new customers to the network) by multiplying expected connection numbers (from our demand forecasts) by the cost per connection (based on our estimate from historical experience). For non-routine projects, costs are estimated using Evoenergy’s experience in undertaking similar projects in the past.

6.2 What capital investment do we need to make?

Evoenergy will invest in assets only when consumer benefits will be realised within short timeframes. This has resulted in a substantial reduction in actual and forecast capex in recent years and for the 2021–26 access arrangement period.

Over the current 2016–21 regulatory period, we expect to spend less capex than the AER allowed (Figure 6.2), and we are forecasting similar levels of capex in the forthcoming regulatory period (2021–26).

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**Figure 6.2: Capex allowance, actual and forecast ($million, 2020–21)**

- **Capex allowance**
- **Actual/estimated capex**
- **Capex forecast**
Table 6.1 shows the proposed capex program broken up by capex category. Our capital program is primarily driven by market expansion capex, which is mainly the cost of connecting new homes and multi-unit developments in established suburbs and outside of the ACT. This capex category would be $25.3 million higher if we included expansion into new ACT suburbs.

The stay-in-business capex forecast reflects our continuing commitment to consumers to maintain reliability and safety (two examples of such projects are shown in Box 6.1 and Box 6.2 below). It also reflects our desire to extract as much value for customers as possible, such as in our meter replacement strategy, which aims to extend meter service lives via statistical sampling.

### Table 6.1: Net* capex by category, forecast 2021–26 period ($millions, 2020–21)

<table>
<thead>
<tr>
<th>Capex category</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Market expansion</td>
<td>34.8</td>
</tr>
<tr>
<td>Capacity development</td>
<td>0.8</td>
</tr>
<tr>
<td>Stay-in-business - network renewal</td>
<td>8.8</td>
</tr>
<tr>
<td>Stay-in-business - meter renewal</td>
<td>21.7</td>
</tr>
<tr>
<td>Non-system</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>66.2</strong></td>
</tr>
</tbody>
</table>

* Net of customer contributions where applicable.
Box 6.1 Maintaining compliance of our high pressure pipelines as new developments encroach on the pipeline corridors

Sections of the Canberra high pressure pipeline from Gungahlin to Phillip were first commissioned in the mid-1990s. The pipelines were constructed around the outskirts of the city and are generally laid in corridors running alongside major roads and previously well clear of urban development. As Canberra has expanded, some surrounding developments have begun to encroach onto the pipeline alignment and we anticipate that urban planning policies will continue to drive encroachments into the future.

We operate the gas pipelines to the current Australian Standard. The Standard requires us to review adjacent land use near the pipeline and to review engineering and other controls that ensure the pipelines’ integrity. Although they are buried below ground and protected against third-party damage by concrete slabs along most of their length, our reviews have indicated that it is prudent to reduce the operating pressure of the pipeline. This will ensure that if any third-party damage were to occur in the vicinity of encroaching land-use developments, it will be suitably contained.

The Canberra gas network currently receives gas from the north near Watson and from the east near Fyshwick. The gas from the north is received into the network at a pressure dictated by that of the upstream transmission pipeline.

To achieve lower than current pressures in the network, we plan to build a high pressure limiting station near our current Watson gas facility. This new station would maintain a lower pressure on receipt of the gas, restricting the Canberra pipeline to a maximum operating pressure of approximately 4,500kPa, down from its current maximum operating pressure of 6,895kPa.
Box 6.2 Ensuring the safety of employees by relocating our secondary district gas regulators

In designing the gas network, we aim to construct infrastructure away from populated and high traffic areas. However, over time, roads get upgraded or widened to serve new areas and our infrastructure may be affected.

Secondary District Regulator Sets (SDRS) reduce pressure from the high pressure steel network and transport gas to the medium pressure plastic networks that supply all residential and small commercial customers. These SDRSs are relatively small gas facilities at medium pressure installed in underground boxes. There are currently approximately 95 SDRSs in service in the Canberra gas network.

Two of these SDRSs, in Lyons and Hume, have become located in the median strip of major arterial roads. These specific regulator sets also have integrity issues such as water ingress, deep pit and heavy steel lids that need to be rectified for easier access by field staff to maintain them. Over the 2021–26 access arrangement period, we intend to relocate these two SDRSs to suitable nearby locations to improve safety for gas technicians.

Do you have any feedback about our proposed capex program? Does our approach seem reasonable? Are there any specific elements you would like to know more about?
7. Operating costs

7.1 What our operating costs cover

Our operating costs (opex) are generally those costs that recur every year. They include day-to-day expenses such as staff, equipment and training. Over a quarter of our operating costs are made up of costs Evoenergy has no control over, including ACT Government charges and levies.

The level of operating costs is determined by considering the services to be provided (e.g. meter reading, maintaining network assets, and other customer services), and the level of quality, safety and reliability customers expect from our distribution service, as well as our regulatory and operational obligations including unaccounted for gas (UAG), which is a small amount of gas that enters our network but is ‘lost’ through the transmission process and metering inaccuracies.

7.2 How our operating costs benefit customers

The operating cost forecast for our gas network business reflects the feedback we have received from consumers on what is important to them and will allow us to continue to:

- provide safe, reliable and secure supply of gas services through integrated long-term asset management planning and investment in maintenance programs that manage risk and meet customer service standard expectations;
- respond to emergencies so that we can minimise service interruptions and keep the community safe;
- undertake detailed assessment of long-term options for the use of our gas network in consultation with the ACT Government and the community to develop a transition roadmap to achieve net zero emissions by 2045; and
- meet our regulatory and operational obligations.
7.3 Our operating costs in the current period

The revenue approved by the AER for the 2016–21 regulatory period included an operating cost forecast of $171 million. We expect to incur $159 million in opex over the 2016–21 period, which is 7 per cent lower than the allowed amount.

Figure 7.1 gives a breakdown of the costs to maintain, operate and support a safe and reliable gas network during the 2016–21 period.

Figure 7.1: Indicative breakdown of operating costs

For every $100 of operating costs

<table>
<thead>
<tr>
<th>Amount</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$43</td>
<td>To operate and maintain the network</td>
</tr>
<tr>
<td></td>
<td>Keeping your gas supply safe and reliable requires 24 hour 7 day a week monitoring and control, as well as regular maintenance to ensure the network is in good condition. Much of this work involves responding to customer enquiries.</td>
</tr>
<tr>
<td>$27</td>
<td>To Government charges</td>
</tr>
<tr>
<td></td>
<td>As a gas network provider, we are liable for a number of government charges including the ACT Government Utilities Network Facilities Tax and miscellaneous government levies.</td>
</tr>
<tr>
<td>$19</td>
<td>To support the business</td>
</tr>
<tr>
<td></td>
<td>Business support costs include legal and secretariat, marketing, finance and business systems.</td>
</tr>
<tr>
<td>$11</td>
<td>To other operating costs</td>
</tr>
<tr>
<td></td>
<td>These expenses include regulatory expenditure associated with preparation of the access arrangements as well as the purchase of a small amount of additional gas to account for metering inaccuracies.</td>
</tr>
</tbody>
</table>

These figures are based on the averages of expected expenditure for the five year period 2016–2021

7.4 Forecast operating costs for the 2021-26 period

We have used the AER’s preferred approach to forecasting operating costs for the majority of costs for the 2021–26 access arrangement period, which is known as the ‘base-step-trend’ method. For government charges and UAG we have prepared our forecast using a ‘bottom-up’ category specific approach.

Figure 7.2 shows these forecasting methods against the operating cost categories we use.
The base-step-trend method starts with the operating costs from a base year. It then applies a rate of change (or trend) to this to account for changes in output and cost inputs as well as expected changes in productivity, and adjusts this with any 'step changes' to account for future changes in our circumstances and operating environment which will attract additional or lower costs.

Details on our operating cost forecast is provided below in Figure 7.3. This forecast includes several ‘placeholder’ assumptions which will be updated prior to finalising the forecast for the June 2020 proposal to the AER.

### Figure 7.2: Our operating cost categories

<table>
<thead>
<tr>
<th>Forecasting approach</th>
<th>Level 1 category</th>
<th>Level 2 category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base-step-trend forecasts</td>
<td>Operating and maintenance</td>
<td>Management services fee</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Asset services fee</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Information technology support</td>
</tr>
<tr>
<td></td>
<td>Other operating costs</td>
<td>Corporate overheads</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marketing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regulatory operations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer engagement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ancillary services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other direct costs</td>
</tr>
<tr>
<td>Annual category specific forecasts</td>
<td></td>
<td>Utilities Network Facilities Tax</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Energy Industry Levy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unaccounted for gas</td>
</tr>
</tbody>
</table>

We are proposing 2019–20 as our efficient base year for forecasting purposes. The rate of change we apply to trend base opex includes:

- real labour price growth
- network growth including the number of customers we serve and length of our gas mains
- expected improvement in productivity

To change treatment of pigging activities from capex to opex we have forecast using specific forecasts for each category and include:

- Utilities network facilities tax of $44.5 million
- Energy Industry Levy of $3.1 million
- Unaccounted for gas of $8.7 million

### Figure 7.3 Operating cost forecast

<table>
<thead>
<tr>
<th>Total operating costs forecast of $173.5 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>$112.2 million base operating costs</td>
</tr>
<tr>
<td>$2.5 million to trend base operating costs</td>
</tr>
<tr>
<td>$2.5 million for a step change</td>
</tr>
<tr>
<td>$56.3 million category specific forecasts</td>
</tr>
</tbody>
</table>

Costs that we have forecast using specific forecasts for each category and include:

- Utilities network facilities tax of $44.5 million
- Energy Industry Levy of $3.1 million
- Unaccounted for gas of $8.7 million
Our operating costs forecast is $15 million (9 per cent) higher than the operating costs we expect to incur over the 2016–21 access arrangement period. The main drivers of this increase are as follows:

- We have included an adjustment for an increase in the scale of our network. To account for this growth, our forecast includes an additional allowance of $3 million over the period.
- We have included an adjustment of $2 million to account for forecast growth in wages above inflation.
- We have included an adjustment for an increase in the scale of our network. To account for this growth, our forecast includes an additional allowance of $3 million over the period.
- We have included an adjustment of $2 million to account for forecast growth in wages above inflation.
- We have included an adjustment for an increase in the scale of our network. To account for this growth, our forecast includes an additional allowance of $3 million over the period.
- We have included an adjustment for an increase in the scale of our network. To account for this growth, our forecast includes an additional allowance of $3 million over the period.
- We have changed the way we treat pigging costs (see section 7.4.1).
- We expect category specific costs to be $3.5 million higher than for the current period mostly due to our UNFT forecast.
- We offset some of these increases by forecasting productivity gains of an estimated 0.74 per cent per year, totalling savings of $2.5 million over the period.

We expect our average annual operating cost per customer to increase slightly because we expect our customer base will grow at a lower rate than in the past.

**Figure 7.4: Actual and forecast operating costs**

![Operating Costs Graph](image)

**7.4.1 Changing the treatment of our pigging costs**

Pigging is a maintenance activity performed on gas pipelines to ensure that the line is running smoothly. Devices known as ‘pigs’ go through the pipelines to perform various cleaning, maintenance, and inspection functions.

We are proposing to change the way we treat pigging costs so these costs are expensed (that is, included in our operating costs forecast) instead of treating them as a capital cost—which is how they are currently included. This is because this activity does not result in the extension of a pipeline asset’s useful life but is undertaken to ensure the asset is maintained in good working condition. We therefore consider treating this cost as an operating expense more accurately reflects the nature of these activities. This will be offset by a corresponding reduction to our capital investment program.

Additionally, this change will result in these costs no longer being added to our regulatory asset base. Given the current degree of uncertainty regarding the future of the gas network, we believe it is in the best interest of customers to limit the amount of capital investment added to the asset base.

We expect to spend $2.5 million on pigging activities over the period.
We are interested in your views on our proposed operating costs. Does our approach seem reasonable? Are there any specific elements you would like to know more about?

7.5 How we ensure we are operating efficiently

Operating costs are a major part of the charges our customers pay for use of the gas network, and so we are acutely aware of the importance of operating efficiently to help keep costs and prices down.

To assess how efficiently we are performing, we look at:

- benchmarking of our costs over time and compared to our peers;
- the impact of incentives under the efficiency carryover incentive mechanism; and
- our actual operating costs compared with the amount approved as efficient by the AER for the current regulatory period.

7.5.1 Benchmarking performance

We engaged Economic Insights to benchmark our performance over time and against our peers. The results of this analysis were broadly consistent with previous studies that have been done, and support other evidence that our costs are efficient relative to other gas businesses in Australia.

To assess our performance, Economic Insights uses two broad methods:

- Index based method—comparing annual productivity levels between network businesses as well as over time. It assesses efficiency at the total cost level, as well as assessing operating and capital efficiency in isolation.
- Ratio method—measures average cost performance over five years on individual cost drivers. This measure compares a business’s performance on total costs, as well as operating and capital costs, separately. It assesses each business’s costs per customer, or per pipeline length, and ranks them accordingly under these cost drivers.

7.5.2 Efficiency carryover incentive mechanism

Under incentive-based regulation, a business’s actual costs are expected to provide the efficient level of operating costs because the business responds to the incentives in place to act efficiently.

During the current access arrangement period, we have been operating under an efficiency carryover incentive mechanism for operating costs as set out in the access arrangement. This mechanism provides us with a continuous and consistent incentive to efficiently lower costs. This incentive is achieved as we retain the efficiency gains (or losses) for the length of a carryover period regardless of the year of the regulatory period in which the gain (loss) occurs.

7.5.3 Actual operating costs compared with the amounts approved by the AER

As noted in section 7.2, we expect our operating costs this period to be below the amount approved as efficient by the AER for the current access arrangement period.
Customer number and volume forecasts are an important input into our GN21 plan. They are used to determine our operating and capital expenditure requirements, as well as the prices we charge for using the gas network. The demand forecasts are also important for our decision-making as a business—they help us to plan investments in the network by better understand the behaviours and choices of our customers, and ensure our pricing structures continue to meet customer requirements.

We commissioned expert consultants, the Centre for International Economics (CIE) to develop an independent and detailed forecast of demand and customer numbers for our gas distribution network for the 2021–26 period. CIE has in-depth experience in providing robust and trusted forecasts for energy markets, including having undertaken forecasting work for the AEMC, and other electricity and gas distribution businesses in Australia and overseas.

### 8.1 Forecasting methodology

We split our customers into two main groups:

- **volume customers**, which include around 150,000 residential and small business customers who use less than 10 terajoules (TJ) of gas a year and are charged based on the volume of gas they consume; and
- **demand customers**, which include around 40 of our largest commercial and industrial customers who use more than 10 TJ of gas a year, and are mainly charged on how much capacity they require.

For both groups, CIE has forecast total gas usage by combining two components: a forecast of customer numbers and a forecast of usage per customer. CIE’s approach to forecasting each component is summarised in Figure 8.1, for both volume and demand customers.

The number of volume customers was forecast by CIE based on projections of new dwelling construction and population growth. However, not all new dwellings choose to connect to gas, and therefore the forecast was adjusted based on the historical proportion of dwellings that have connected. The forecast was also adjusted to take account of expected new gas connections in existing dwellings as well as the number of customers disconnecting from the gas network.

A different approach was applied to forecasting our demand customer numbers, given the relatively small size of this group. The number of demand customers has remained relatively stable over the past 18 years, with approximately 40 customers connected over this period. CIE projected the number of demand customers to remain flat throughout 2021–26, with only a small
increase from some large volume customers transitioning to the demand market.

To forecast usage per customer, CIE developed an econometric model based on various drivers of gas demand, as shown in Figure 8.1. The forecast takes into account historical trends, the effects of weather on gas usage, and the impact of gas prices on consumption.

For residential customers, gas usage was forecast separately based on dwelling type (including detached dwellings and medium/high density dwellings), and was adjusted to reflect the fact that newer dwellings tend to be more energy efficient and hence use less gas. By taking into account historical usage patterns, the forecast implicitly captures evolving customer preferences for gas use over time. They also implicitly assume the continuation of the policy environment observed in the recent past. However, being based on historical data, this does not take into account any future expected changes in energy policy and customer behaviour. This is discussed further in the next section.

**Figure 8.1: Forecasting approach for customer numbers and usage**

- **Customer numbers forecast** x **Usage per customer forecast** = **Total gas usage forecast**

**Key customer number drivers**
- Historical connection rates
- Population growth
- Rates of new electricity-to-gas connections
- Rates of permanent disconnections

**Key usage drivers**
- Dwelling type (new or existing; detached or medium / high density)
- Historical trends in usage (e.g. energy efficiency improvements)
- Weather
- Prices

**Volume Customers**

**Demand Customers**

- Historically stable customer numbers, with no significant changes
- Customers transitioning from volume to demand tariffs (using more than 10 TJ per year)

- AEMO usage projections for industrial customers
8.2 Forecasting impacts of ACT Government policy

The most significant source of uncertainty in forecasting Evoenergy’s gas demand relates to the impact of the ACT Government’s target of net zero greenhouse gas emissions by 2045. Natural gas and transport are the main sources of emissions in the ACT, now that the target relating to net zero emissions from electricity has been achieved.

The ACT Government’s recently released Climate Change Strategy 2019–25 outlines the government’s commitment to explore alternatives to natural gas to meet emissions targets. As one outcome, the strategy contemplates mass disconnection of customers from the gas network by 2025. 5

The goals set out in the strategy have the potential to impact the gas forecast in a number of important ways. These include potentially reducing the rate of gas connection for new dwellings, increasing disconnections by existing dwellings, and reducing overall usage per customer.

CIE has taken some of this uncertainty into account by explicitly modelling two scenarios for its gas demand forecast:

1) a scenario which assumes a continuation of existing ACT Government policy

2) a scenario which assumes no new gas connections in new ACT suburbs as part of the ACT climate change strategy.

While these scenarios take into account the number of new gas connections, it is more difficult to capture how the ACT Government’s policy will impact the volume of gas used. It is clear that the climate change strategy, including the ACT’s campaign to encourage a transition from gas to electric options, will have a real impact on how new and existing customers use the gas network. However, these changes are not reflected in historical data, and therefore do not form part of the econometric models developed by CIE. There is also significant uncertainty about the size of the expected impacts, and little evidence that can be used to reliably model how the ACT Government’s campaign will impact customer usage.

At the same time, excluding these impacts from the demand forecast would be an unrealistic response to the goals set out in the climate change strategy. Therefore, we have adopted a set of post-model adjustments to the demand forecast to reflect a conservative expectation of decreasing gas usage and a higher number of disconnections over the 2021–26 period as a result of the ACT Government’s campaign.

The demand forecast we have used for the GN21 draft plan assumes the following:

- no new connections in new ACT suburbs;
- usage per customer 10 per cent lower by 2025–26 than modelled without an adjustment to account for the impacts of policy changes; and
- rate of disconnections three times higher than modelled without an adjustment to account for the impacts of policy changes.

5 ACT Climate Change Strategy 2019-25, p.39
8.3 Usage and customer number forecasts

Figure 8.2 shows the customer number forecast for 2021–26. The forecast reflects a continuation of the historical trend of increasing customer numbers, primarily driven by increasing population and construction of new developments.

By 2025–26, there are forecast to be 164,000 volume customers.

**Figure 8.2: Customer number forecast for volume market**

The forecast usage per customer is shown in Figure 8.3. The forecast for 2021–26 is based on the trend of falling consumption seen over the historical period, particularly in recent years, and results in an average consumption of 35 GJ per customer.

**Figure 8.3: Usage per customer forecast for volume market**
We are interested in your views on our proposed customer number and volume forecasts. Does our approach seem reasonable in light of the ACT Government’s Climate Change Strategy and commitment to explore alternatives to natural gas?

Figure 8.4: Total gas usage forecast for volume market

We are interested in your views on our proposed customer number and volume forecasts. Does our approach seem reasonable in light of the ACT Government’s Climate Change Strategy and commitment to explore alternatives to natural gas?
9. How to provide feedback

We want to hear your feedback to make sure our GN21 plan accurately reflects the priorities and views of our consumers, and promotes their long term interests.

Throughout this draft plan, you will see callouts that provide guidance on specific questions we are seeking your views on. However, your feedback is welcomed on any part of this draft plan.

To have your say contact us directly at consumerfeedback@evoenergy.com.au or visit https://www.evoenergy.com.au/about-us/about-our-network/gas-five-year-plan/gas-network-consultation-program to get involved with one of our engagement activities, speak to the people who have developed the plan and have your questions answered.

We welcome submissions on this GN21 draft plan and ask that they be lodged by email to consumerfeedback@evoenergy.com.au by 5pm 2 April 2020.
Approx Water Temp.

Hot water temp.

Transfer

On/Off

WARNING
- Check the transfer 'on indicator' light is lit before turning on tap.
- Please read the 'Operation/Installation Manual' carefully to ensure safe and correct operation.