

Gas Networks 2050

Small Business Forum



Welcome

to the Jemena Gas Networks 2050 Small Business Forum

I would like to thank you for your involvement in Jemena Gas Network's incredibly important conversation about our energy transition to net zero carbon emissions and the future of gas.

The energy transition before us is not only one for business, and governments to solve. The challenge, conversation and the response must actively involve and consider customers and communities.

This is complex. But this complexity should not deter us from meeting the challenge head on, with a critical, questioning mindset.

Spending time with customers is always insightful. It's great to understand the issues which are front of mind for many at the moment. What we've heard so far are things like rising cost of living pressures, energy affordability and reliability.

The outcomes from our engagement with you are important as they will directly impact the future of our business, and ultimately, all of our customers. Your feedback will directly feed into our next price and service plan we will submit to the Australian Energy Regulator for approval.

I thank you for committing to join our Forum. We've held many sessions with customers and stakeholders from September 2022, asking them to consider what the energy challenge means to our 1.5 million customers. In March 2024, we will reconvene with as many of these customers as possible will to determine what is in the best interest of customers as we make key decisions about our future.

This pack provides you with useful background and contextual information. I encourage you to get familiar with this content so you can rigorously and enthusiastically launch this round of conversations. While you absorb the material, note down what questions and thoughts come up for you around the future of gas and the challenges that customers might face.

I look forward to what we learn from you through this journey we are taking together.

Yours sincerely,

David Gillespie
Acting Managing Director
Jemena



David Gillespie,
Acting Managing Director
Jemena

The brief

Introduction

Australia is moving rapidly to reach net zero carbon emissions by 2050 – a target mandated in legislation and policy at both the State and Federal level.

We exist in a world of rapid change, with exciting developments to meet our energy needs.

Governments around the world are developing and implementing different energy policies under a common theme: transitioning towards a zero carbon energy future.

The transition of the gas sector, what it looks like, and consumers, technology and policy will influence the role it plays. Some people think the future should be entirely electric. Others consider that renewable alternatives to natural gas must play a role in the transition. What we do know is that the move to electrification for households, in terms of connections and energy supply, is currently more advanced. However, the development of Australia's renewable gas sector is progressing, with increased research into technology, interest from large customers and retailers, and infrastructure investment by Jemena and other parties.

The uncertainty for the future is around how the energy transition will happen, at what pace, and what [a sustainable economy will look like](#).

Gas Networks 2050 is a forum created by Jemena for us to collaborate with stakeholders and customers to work through the energy challenge together.

This collaboration has become all the more important as we start to prepare a pricing and services plan covering the period between 2025 and 2030. We have established four key groups as part of our Gas Networks 2050 engagement process.

1. an Expert Panel of energy experts who have now developed plausible future scenarios for the NSW energy system, including the role of gas under each scenario. The Customer Forum will examine the future scenarios in their sessions.
2. an Advisory Board of customer advocates who have advised Jemena through the regulatory process, and have developed a range of response options that Jemena might implement to best prepare for the future, keeping in mind customers. The Customer Forum will examine the response options in their sessions.
3. a Customer Forum of household customers who will ensure our business decisions over the next five-year price period and towards 2050 are truly shaped by customer perspectives.
4. Key voices to ensure Jemena adequately reflects priorities of specific hard-to-reach customers. This includes a diverse group of young people (aged 18–24) and educators and community leaders who represent culturally and linguistically diverse communities.

About this pack

Reading this pack will set you up with a foundation of knowledge to participate in the Small Business Forum. Inside you will find information to read as well as links to other content including videos.

Contents

1. About Jemena Gas Networks
2. About the engagement process
3. The energy transition
4. The energy challenge

Acknowledgement of Country

We acknowledge the Traditional Owners of the land on which we operate and recognise their continuing connection to land, waters, and culture. We pay our respects to their Elders past and present.

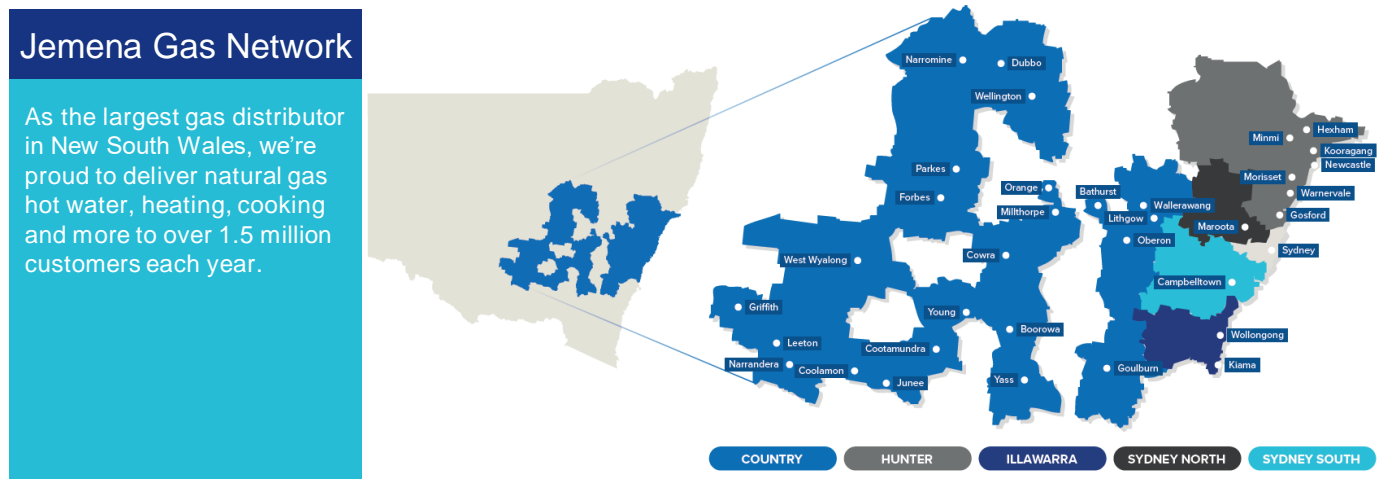
About Jemena Gas Networks

Jemena Gas Networks started in 1837 when we were created to light Sydney using gas. In 1841 the first gas lamp was lit and within 2 years 165 gas lamps had been installed. Fast forward 185 years, where today, we are the largest gas distributor in New South Wales.

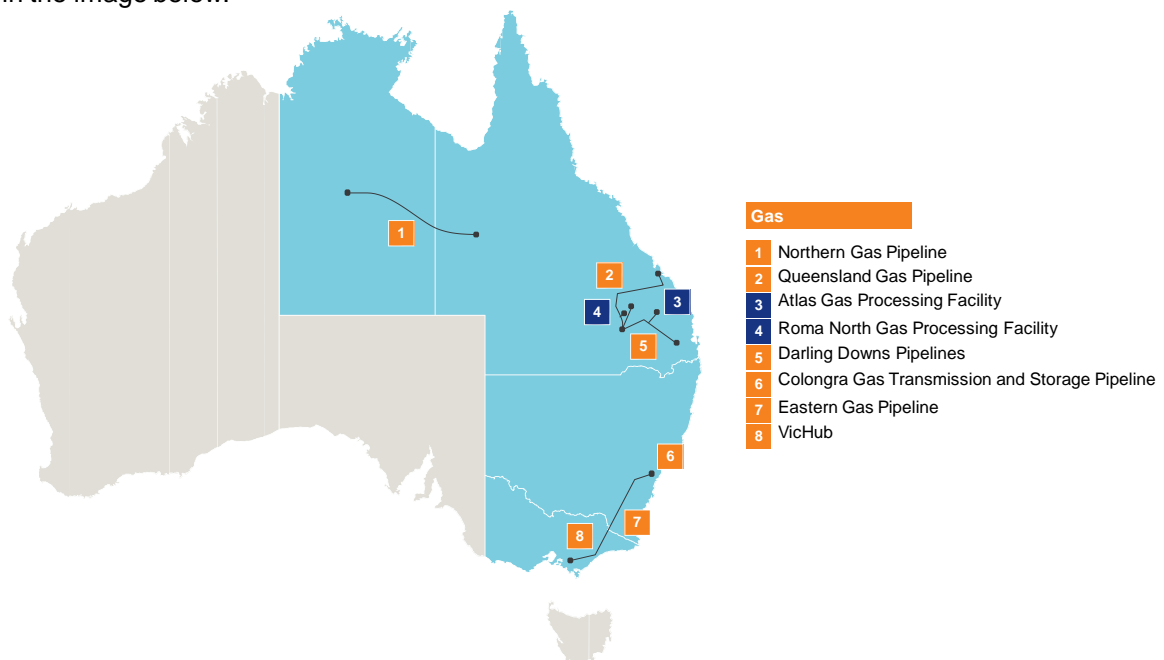
We are not a gas producer; we own and operate the infrastructure and network that supplies natural gas to homes and businesses.

Our gas network is over 25,000 kilometres in length and distributes natural gas hot water, heating, cooking and more, to over 1.5 million customers each year. The network connects gas from major points of supply to residential, business, and industrial sites in Sydney, Newcastle, the Central Coast and Wollongong.

It also covers over 20 regional centres, including the Central West, Central Tablelands, South Western, Southern Tablelands, Riverina and Southern Highlands regions of New South Wales.



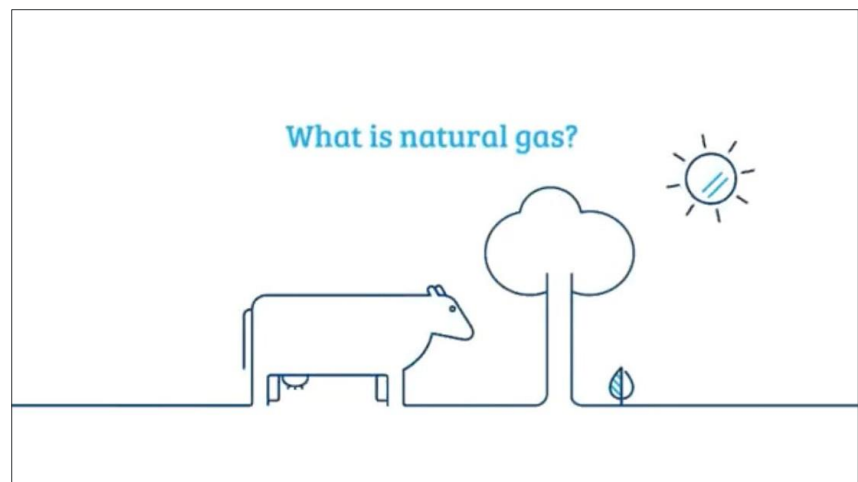
Jemena owns and operates some of Australia's most important gas transmission pipelines shown in the image below.



Video link...

Learn about natural gas from another gas network company (00:59 seconds)

youtube.com/watch?v=0Rc0SMAIr3A&t=59s

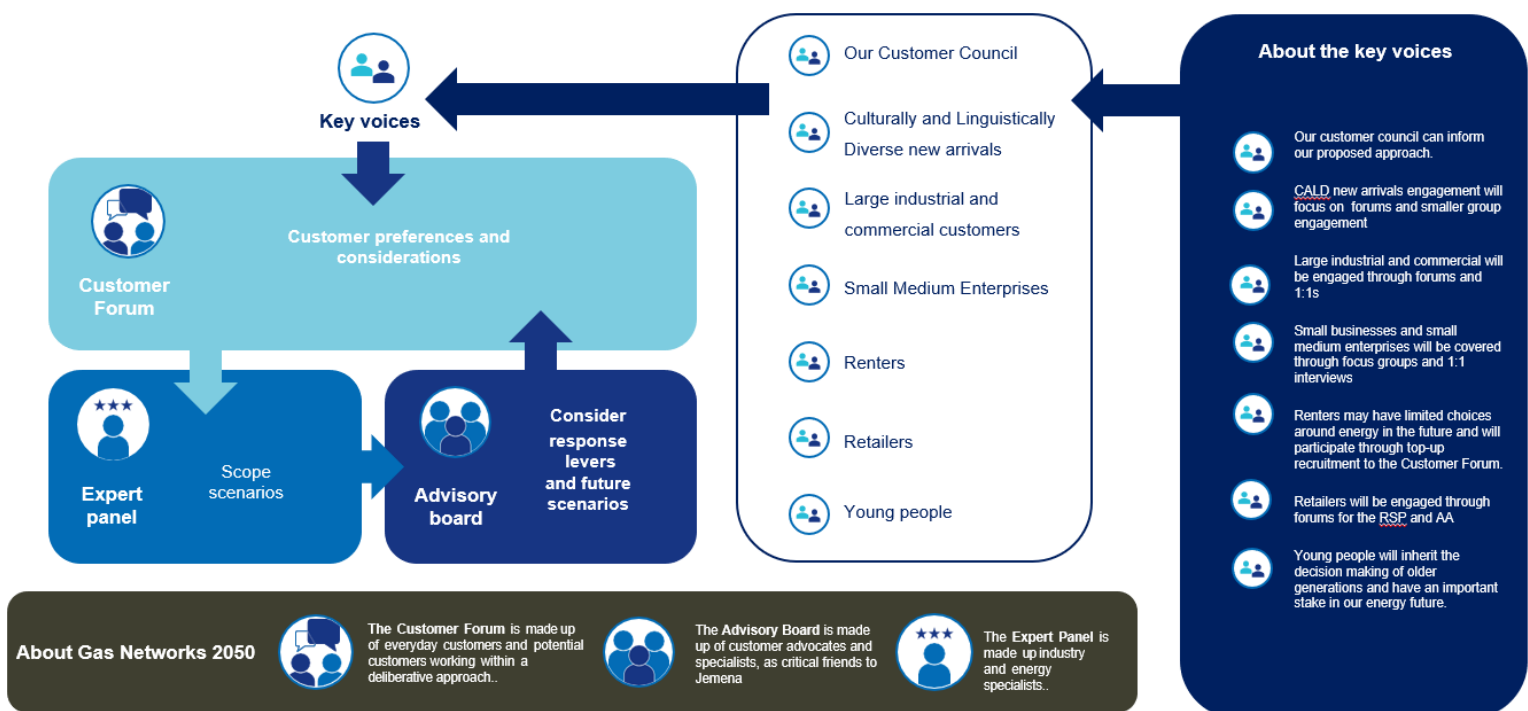


Jemena's engagement process

Overview

Your views and active contribution in the Customer Forum will help Jemena shape the future of its business. Together, we will consider the energy transition and how decisions can be made in the best interests of customers, now and into the future.

As well as the Small Business Forum and other key voices, we called together a Customer Forum, an Advisory Board and Expert Panel, and other groups such as large users. Each group has a distinct purpose but there are connections between them as shown in the graphic below.



What is a regulatory reset?

Every five years, we must prepare a costed business plan for the review and approval of the Australian Energy Regulator (AER). We refer to it as a regulatory reset. The regulatory reset gives us direction on how much we can recover from our customers over a five-year period. While we do not directly bill household customers, a portion of your gas bill is revenue for us.

As a gas distribution company, we make up approximately 31% of a typical household gas bill. What we charge, and the service we provide you, is reviewed every five years as part of a regulatory process which requires us to submit a plan to the national energy regulator.

Because we are a sole provider, our plan and process is highly regulated including what we can and can't charge our customers.

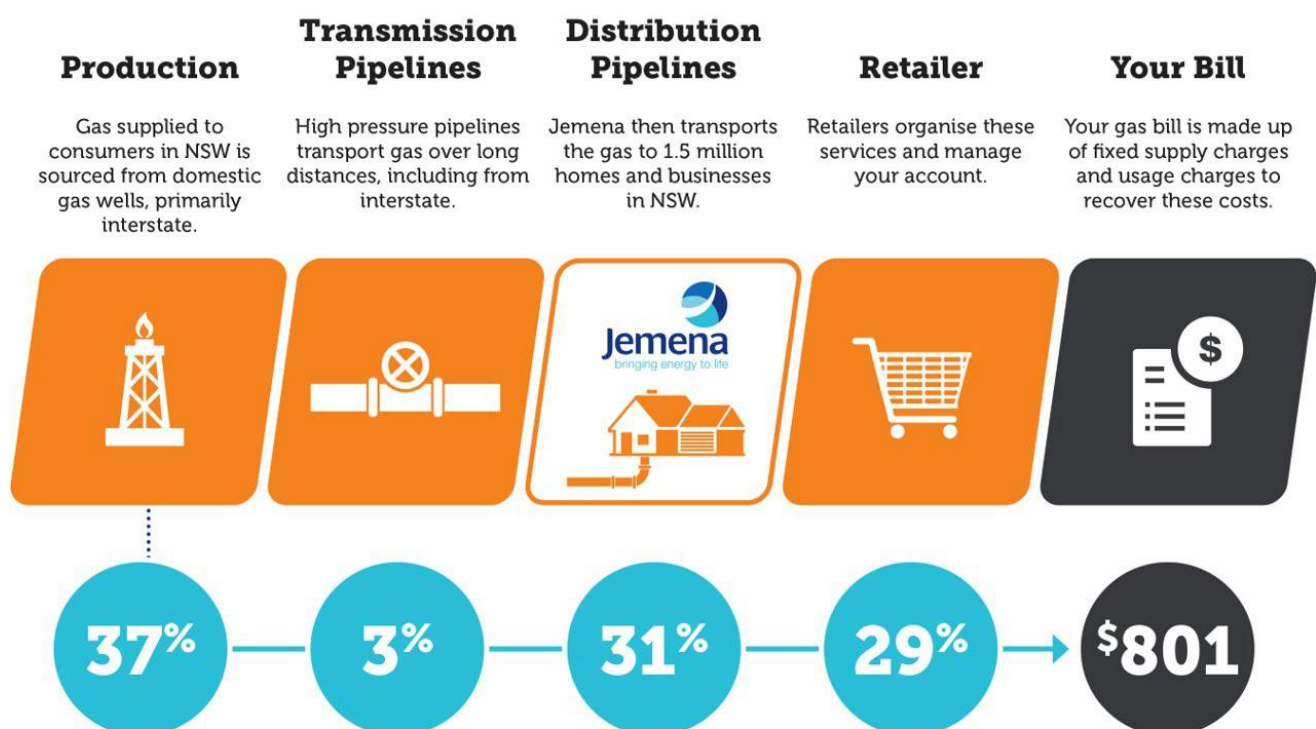
The regulators' review focuses on whether our plan is consistent with the rules and in the long-term interests of customers.

The level of service we need to provide influences how much we invest in the network, also helping us understand how you would like us to prepare for the future.

You can shape our thinking by helping us understand your gas supply preferences. By better understanding the service levels required by you, and the community, we can plan for the future, and ensure you're accessing the services you want.

Your role in the Small Business Forum is to work through what regulatory responses are in the best interests of customers for Jemena to take over the next five years and beyond, including relating to customer bills. This will be considered as Jemena prepares their regulatory reset (business plan).

The next regulatory reset, or business plan, will cover the period from 2025-2030. It is due for submission to the AER in mid 2024.

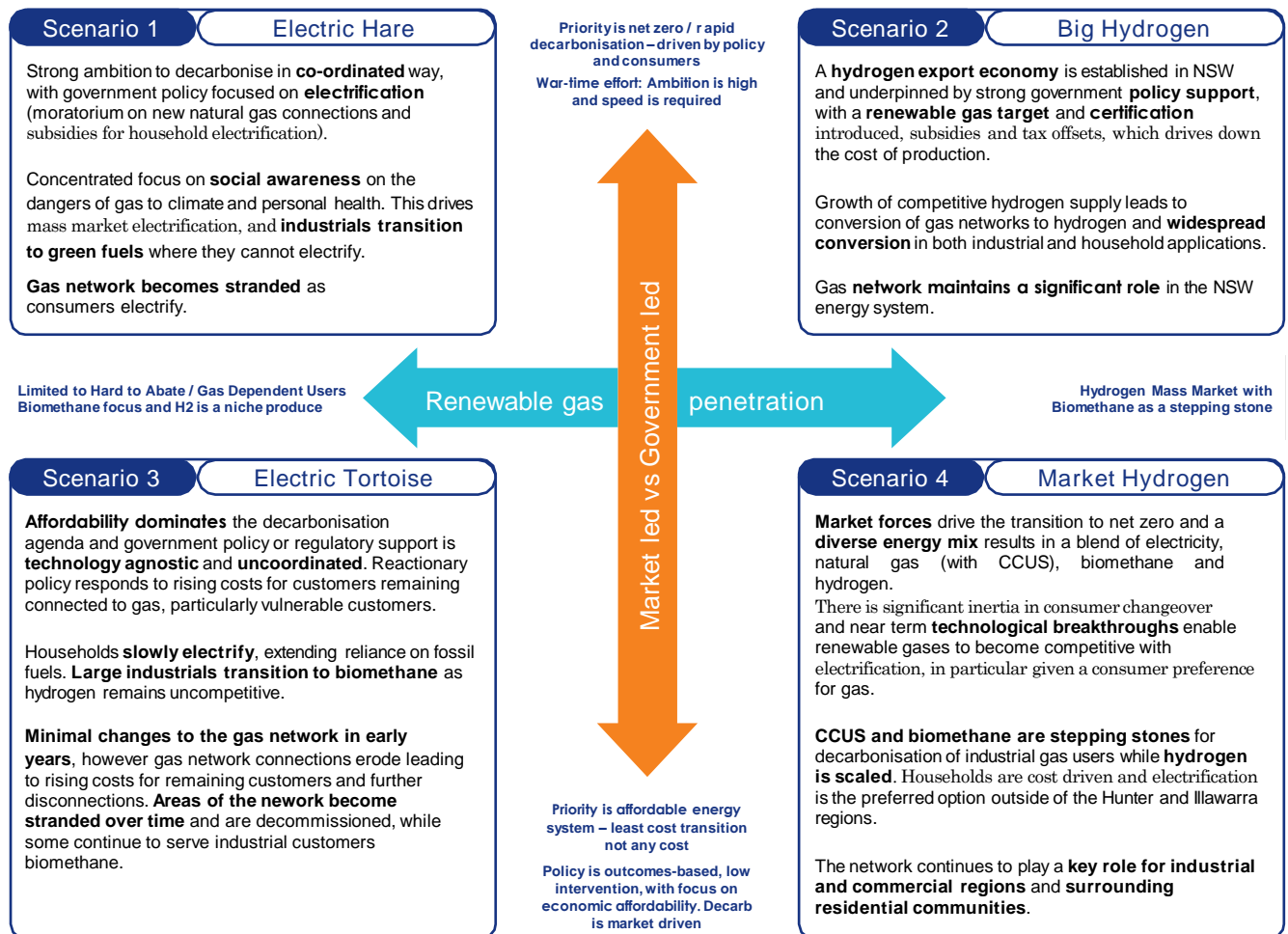


* Based on a customer with gas heating, cooking and hot water appliances using 15,000MJ per year. Calculated using assumed wholesale price of \$17GJ.

About the Expert Panel and future scenarios

The Expert Panel have completed its work to develop scenarios that describe what the future could hold for energy. These scenarios are not predictions. They are merely tools for helping us plan for the future and navigate the uncertainty around timing, customer readiness, technological developments and government policy.

The future scenarios, as produced by the Expert Panel are shown below. We will get to know more about them in the Small Business Forum sessions and be exploring them in slightly different ways, too.



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About the Advisory Board and the response options

The Advisory Board has also completed its work to consider the regulatory responses or actions that we could take in the context of possible future scenarios. You will learn more about the response options in the Forum sessions.

Response options

1. Moving towards gas alternatives:
 - a. Education about renewable gas
 - b. Increasing hydrogen capability of the network
2. Managing a contracting network
 - a. Asset replacement speed
 - b. Capital contributions – how much Jemena invests in the network
3. Managing Jemena's financial risk
 - a. Shorten or maintain asset life (time before replacement)
 - b. Capital recovery – the timeframe over which Jemena recovers its investments from customers
4. Supporting customers
 - a. Digital metering
 - b. Vulnerable customer policy
 - c. Abolishment (this means permanent disconnection)



Your involvement

To maximise your input and role in this project, we've put together some principles of involvement for online, in person and digital engagement:



Be present.

Whether it's online or in person, make space and remove any distractions for the time period you've committed to.



Get curious.

There are no silly questions. The point of this is to interrogate the subject matter, and critically question the scenarios and options available. Don't hesitate to ask.



Have your say.

We have established a group that can represent Jemena's customer base. Your voice is important in the conversation, and your unique experience and insight is what we are here to hear.



Respect each other.

While we support and encourage all views being shared, even opposing ones, we must draw the line at any behaviour that might cause others distress. Treat each other with respect and make space for other's diverse views otherwise we may have to ask you to leave.

Other important points to note:



Filming and photography

– we will be filming and photographing each of the in-person sessions. We've asked you to sign a permission form to cover the use of images and video that we take.



Posting to socials and talking to media

– please feel free to speak from your point of view (not on behalf of the group or Jemena) about the process and discussions. We'll also be posting about the process to our social media accounts and website.

The Energy Transition

Australia has committed to net zero carbon emissions by 2050. Burning natural gas for energy produces carbon dioxide, so meeting this target means decarbonising gas, or as recent research* indicates, customers moving away from gas to electrification. The energy sector is already shifting away from producing and consuming non-renewable fossil fuels, like natural gas, and towards using low carbon, renewable energy sources, including solar power and renewable gas.

This is a complex and an ongoing process – it's often referred to as the energy transition and is characterised by uncertainty, market volatility, rapid change, and unpredictability.

At the heart of the transition is the net zero emission target by 2050, to curb global warming and limit the catastrophic and irreversible impacts of climate change.

The Paris Agreement

At the 21st Conference of Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC) in December 2015, almost all participating countries agreed – for the first time ever – to enter a legally binding and universal treaty strengthen the global response to climate change.

196 countries agreed to reduce global greenhouse gas emissions to limit the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C and achieve net-zero emissions in the second half of this century.

Australia is party to the Paris Agreement and a requirement is to submit emissions reduction commitments. These were updated in 2022, committing Australia to reducing emissions to 43% below 2005 levels by 2030.

Learn more about The Paris Agreement
unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

What's driving the energy transition?

People are driving the energy transition. Customer expectation is rising, with a higher awareness of climate change, and a growing opposition to carbon emitting energy sources. Technologically, we are seeing continuing advances in renewables, improvements in energy storage, and digitalisation of energy. In the environment, we are seeing frequent, intense weather events, and awareness of pollution levels and carbon footprints. There are political drivers as governments are needing to deliver on their COP21 commitments, alongside increasing regulation and efficiency standards as well as policy support for renewable energy.

What is the future of gas networks?

As gas networks currently transport natural gas, a fossil fuel, the future is uncertain.

The future will depend on many factors such as consumer preferences, policy and regulation, technological developments and the economics of different options.

What is clear is that in any net-zero future, the status quo for gas networks cannot remain the same.

We believe that gas networks have a crucial role to play in tomorrow's energy system through a transition to renewable gases such as biomethane and green hydrogen.

Biomethane is a carbon neutral gas – it harnesses the energy potential from organic materials such as landfill gas, agricultural waste and wastewater.

Green hydrogen is produced using water and renewable electricity, through a process called electrolysis, meaning the entire process is free from carbon emissions.

We believe that renewable gases have the potential to:

1. Provide an alternative decarbonised source of energy with many of the natural gas characteristics such as instantaneous heat as well as the reliability and security of a dual source of energy.
2. Avoiding costly upgrades to the energy network and generation fleet providing a lower cost whole of system decarbonisation pathway.
3. Supporting the decarbonisation of other sectors such as transport or providing a role in supporting the electricity grid.

However, there are challenges and the renewable gas future is not guaranteed. As a result, many believe that gas networks will or should play a much smaller or even no role as homes and businesses electrify.

Examples include:

- The Australian Energy Market Operator. In all of the 2050 net-zero scenarios used in its forecasting and planning publications assume that residential gas loads will be entirely (or almost entirely) electrified by 2050.¹

¹ 2021 AEMO, 2021 Inputs, Assumptions and Scenarios Report, July, p.41. Available here: aemo.com.au/-/media/files/major-publications/isp/2021/2021-inputs-assumptions-and-scenarios-report.pdf

- The ACT Government that advises customers to switch away from gas, see here: climatechoices.act.gov.au/energy/switching-from-gas

- The Victorian Government also encourages customers to switch away from gas, see here: premier.vic.gov.au/new-victorian-homes-go-all-electric-2024

- Saul Griffith, an Australian-American inventor, who believes we should electrify everything. See here: youtube.com/watch?v=Qg-p4ZbQ1HU (video 3min 14 seconds)

Video link...

This video provides more information about what Jemena is doing to develop renewable gas alternatives
(3:26 minutes)

<https://youtu.be/hOeFztDmgm4>



Contact us

If you have any questions about the program please get in touch with Merryn Spencer, Engagement Lead, Jemena on 0401 021 560 or GasNetworks2050@jemena.com.au

