

# Gas Networks 2050

## Access Arrangement

### Small Business Forum 1 (group 2)

## Outcomes Report

25 October 2023

6.00 pm-7.30 pm



# Methodology: What we did in the session



## Objectives

Our session objectives were to introduce Jemena, provide an overview of the future scenarios developed, update customer feedback, and get small businesses' initial thoughts and questions on specific response areas within the 2025-30 Access Arrangement.



## Attendees

Six randomly recruited representatives from small businesses attended, recruited through an independent market research company. They're all mains gas users and the primary decision-makers on energy in their business, ranging across various industries, including motor vehicle, accommodation and hospitality, retail trade, arts and recreation and information media and communications from across mostly Western Sydney and also Greater Sydney (see the breakdown page 17). Participants were paid stipends to attend and complete the pre-reading in line with industry standards.

## Format

The session ran for one and a half hours online on Microsoft Teams. Participants were sent a 13-page pre-reading booklet as background material. To ensure coverage of in-depth topics and time to consider all the options, we ran two forums with the same group – one on 25 October and one on 8 November. This is the first forum report.



## Overview Summary

### Section 1: Introductions and about Jemena (30min)

This section was dedicated to attendees introducing themselves via an icebreaker activity and a short presentation about Jemena. Afterwards, participants responded to what they'd heard with questions, a discussion about what they value about gas and any insights on whether they were stopping or continuing their gas use in future.

### Section 2: Explore (40min)

In this section, we introduced the regulatory response options that Jemena can act on and asked small businesses a series of questions to explore the response options in more detail.

### Section 3: Conclusion (10min)

To conclude, we asked small businesses what they thought about the details discussed so far, their general feedback on the session, and what we would make them feel that Jemena had listened to small business voices.



# Playback: what small businesses said



**All agreed that affordability is a key concern, especially with interest rates and the inflationary environment, and choice is a big factor for this group.** Many are reliant on gas, some have noticed market shifts, and others are interested in keeping options open to both gas and renewable electricity sources as technology improves: the price of gas and affordability is of primary importance to this group, and many are looking closely at their costs. Most agree gas is still cheaper than electricity currently, however, the group is split on choice for the future – although some are heavily reliant on gas, others are interested in shifting to renewable electricity sources and many are interested in the leaps in technology with induction cooking and electric hot water. However, some are installing both and hedging their bets either way as they feel they need a back-up or a choice.



**Interest in the renewable gas role in the transition:** because of their reliance on gas as a fuel source, this group is interested in accessing renewable gas in future. This group is concerned about whether appliances would still work and what the costs would be of potential appliance replacement would be. Others are interested in whether developers are still connecting to gas and monitoring changing trends.



**Response options:** participants are most interested in hearing about renewable gas, speeding up recovery, a new approach to connections, permanent disconnections, and digital metering in the next session.

**Small businesses expressed appreciation at being consulted and learning more about the future of energy and the gas network through this process:** satisfaction was expressed at being presented with all the information so transparently and listening to small business voices.



*"Bills have gone up but at the same time (...) the consumption is more or less the same."*

*"For our business, the revenue has gone down a bit. So less people coming to our business. Then the interest rates are going up, inflation etc. So then we are trying to reassess all of our bills on our side."*

*"I suppose my opinion is that I want both."*

*"Gas heating versus air conditioning, chalk and cheese. Gas wins every time."*

*"I think gas plays a very vital role, whether it's business or personal life. It's an essential part of our everyday routine."*

*"The fact you're trying to work with us now to do this."*

*"So the chefs, I'm not sure like the other restaurants, but they still prefer gas over electricity any day, like probably because of the background they are from, and bit more comfortable working with gas. (...) but definitely gas is the cheaper option when it compares in the restaurant side of it."*

*"You're actually putting us first before making a decision. You're acknowledging our existence."*

*"My electricity bill is much higher than my gas bill."*

*"I actually love my gas. If it was to eventually disappear, I think I would die. (...) When I bought my house I had an electric stove top. I ripped it out and put a gas one in."*

*"Something that will take say 20 minutes on a gas stove might take an hour on an electric stove."*

*"If you are using the induction hot plates. If I'm making tea on a gas stove, it takes me about 7 minutes, on the induction it takes me like 4 minutes. Induction cook top is way faster."*

*"When I got gas connected as well, the thought was to keep the price down. (...) but now I'm a little bit into the business in a position where I'm reviewing different utilities, gas still is cheap. So that's the reason I kind of like to keep both."*

*"I'd die without my gas cooking (...) but having said that, most of the restaurants and all the top chefs in Sydney use induction cooking and they're saying they're you know, it's better than gas. (...) I think it's just this mindset that I have that gas is better for cooking."*

# Introduction: Initial questions and reactions from small businesses

**Government policy:** The initial questions from participants focused on government policy and any grants received both to Jemena or any potential to small businesses to assist with the transition. Jemena noted grants from the federal government (Australian Renewable Energy Agency) for the pilot renewable gas project Western Sydney Green Hydrogen Hub and Malabar Biomethane Injection Plant.

**Construction pain:** others commented on the pain of installation to connect gas and also perceived the construction teams or plumbers that do the installation work are not customer-focused. They could be more thoughtful in their approach. Others are interested in which developers are choosing to shift off the gas.

**Balancing cost factors and meeting sustainability goals:** participants are interested in supporting the environment but are also looking at prices.

*My question is that because obviously this initiative to be to have a net zero emissions by 2050 is an initiative driven by the federal government right now, considering that you being the monopoly in the NSW, what sort of a government grants Jemena is getting from the federal government?"*

*"It will come back to us as the as the end customer or the end consumer of gas or electricity to reduce the ongoing increasing cost."*

*"I don't know what sort of contractors do this job, but whenever this new connection comes, I had got a very bad experience. Like twice when the new connection was set up, the neighbours were complaining about the gas leakage."*

*"A business perspective from gas versus electricity, just going through a nightmare process. (...) the gas company was responsible for the connection to the property, but it was then doing all the piping work."*

*"I think gas is pretty reliable in the sense like if everything shuts down, gas comes in and becomes reliable for everything."*

*"It's important to be sustainable and at the same time looking at the cheaper price with given with given scenario where the prices are going up."*

*"I've learned a bit just reading the materials sent through as well, because I've never thought about that side of the process."*



# Explore: small business insights and questions about the response areas

- We presented the seven response areas and asked for some initial thoughts from small businesses attending on these areas to customise our presentation for the next session.
- Some were interested in how Jemena would be adapting to government policy or 'pivoting' to survive. Some also questioned the relevance of a five-year plan given how quickly things change and suggested a two or three-year plan.
- Good interest in digital metering from the group.
- Participants are interested in also learning more about renewable gas and using existing infrastructure. Several participants noted cost and affordability play into these response areas and decision making. Some are interested in how this may assist their own businesses with their sustainability goals.
- Attendees also expressed an interest in new connections and permanent disconnections. For example, one participant was concerned about the charges at both the beginning and end of the infrastructure lifecycle, for example at the new connection, and the permanent disconnection stage. However, they do understand there would be less customers on the network to share the costs.

*"I can feel the pain for Jemena given that there is a deadline by 2050 and if everybody goes off, how is Jemena going to survive? What sort of steps required to be sustainable?"*

*"I think about the cost before anything in any decision I make, because how is it going to benefit my family?"*

*"And also I guess even with the buildings happening at the moment, if it's known that you might charge for it to be taken away, down the track builders will pass on that information. So then you'll lose customers."*

*"Getting better at using the current resources is the thing to do."*

*"And something else go through the pipes."*

*I would say like still like moving to a renewable gas would be a better option to be honest.(...) a better way to utilise the existing network you already have."*

*"Where I'm trying to come here is that if that higher cost of you doing the business is passing on to once the customers as you mentioned that people are already started leaving the network, they just pay one off like 1200 and see. (...) So you will they be ending up more cost to recover from the less customers, which means at the end of the day it is more cost to the end customers."*

*"On digital metering I really feel like that's very important from a business perspective because if a human is coming to do the meter reading and it's a very prone to human error and if it's digital then obviously if it is proper controls in place (...) you can login to those Jemena app or AGL app or whatnot to see what's the usage and you can always match with the bills you get it so that gives a more control from that perspective.."*

*"I say pivot"*

*Well, I I think it's a bit mean charging on the on the way in and the way out, I think it's one or the other."*

*"With the pricing you mentioned you have to do a 5-year plan, but can that be reassessed based on the unknown as well to do it more often? Like fight for a three or two year plan."*

# Reflection: listening to small business voices

- Participants felt being presented with all the information, and options without any decisions made yet for discussion by them was very powerful.
- The fact that Jemena is working to listen to the voices of small businesses in this forum was compelling.
- Making sure everyone's voices are heard is a real bonus to participants.
- Others felt that taking small business operators' views into account is a great starting point for this process.

*"Listening to the Small Business Operators and getting their opinion is a great start in the right direction. Thanks."*

*"The fact you're trying to work with us now to do this."*

*"Taking the people's opinion and conducting the service means they are really serious into this project and they want to make it sustainable and probably more useful."*

*"You're actually putting us first before making a decision. You're acknowledging our existence."*

*"I feel as though you've done all the research and the market analysis, and what you've put to us is just about every option that's possible without making any decisions."*

*"And making sure that everyone's voice is heard and probably they can take a feedback or suggestion from this and get better at what they want to do."*

# Session slides

Wednesday 25 October 2023



# Acknowledgement of Country

We acknowledge the Traditional Owners of the lands upon which we operate and recognise their continuing connection to land, waters, and culture.

We pay our respects to their Elders past, present, and emerging.

Pictured: artwork by Aboriginal artist Chern'ee Sutton from Mount Isa for our Group's Reflect Reconciliation Action Plan





# Welcome!

01

Purpose and context,  
introduction to  
Jemena



02

Exploring concepts,  
topics and your  
preferences on the  
response areas



03

Thank you, feedback  
and next steps.



## Your guides for today



**Andre Kersting**

Gas Networks  
Regulation Manager  
Jemena



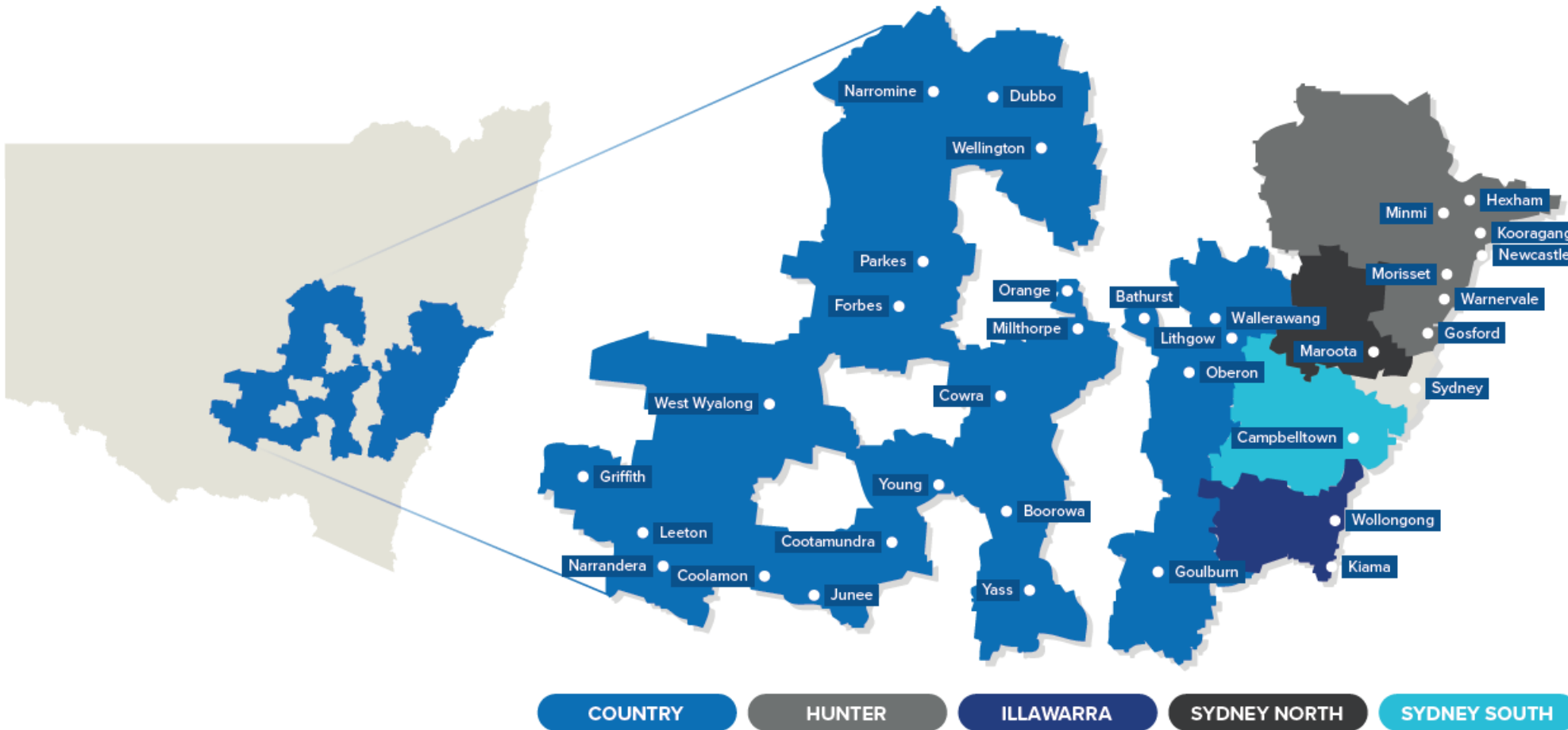
**Merryn Spencer**

Engagement Lead  
Jemena

This session is being recorded

# About Jemena Gas Networks

## Our area of operation



- Founded in 1837 to light Sydney using gas.
- The largest gas distributor in New South Wales.
- More than 25,000 kilometres of pipe distributing natural gas to over 1.5 million customers each year.
- Supplies residential, business, and industrial sites in Sydney, Newcastle, the Central Coast and Wollongong.
- Network covers over 20 regional centres, including the Central West, Central Tablelands, South Western, Southern Tablelands, Riverina and Southern Highlands regions of New South Wales.





# About the rules we operate under



The Australian Energy Regulator (**regulator**) regulates gas pipelines in all states except Western Australia and Tasmania.

The rules ensure that networks do not favour their own businesses to the disadvantage of competitors, or use money from regulated services to fund their own businesses.



Our shareholders fund the investments required to run, grow and maintain the gas network, with the expectation of a return on that investment.



The **regulator** sets a 'rate of return' (return on investment) for capital investments. This rate of return is a benchmark rate of return, which is applied to all regulated gas and electricity networks.



**Every five years**, we provide information on the costs of our investments to the regulator. The regulator reviews our investments to ensure that they are prudent and efficient.

# Net Zero: government and industry are responding

## Government commitments to net zero

### AUSTRALIA

- » Committed to Paris Agreement
- » 23.5% of large-scale renewable electricity generation by 2020
- » National Hydrogen Strategy

### NT

- » Draft aspirational target for net zero emissions by 2050
- » 50% renewable electricity by 2030
- » Northern Territory Renewable Hydrogen Strategy

### WA

- » Net zero emissions by 2050
- » Renewable hydrogen is distributed in a WA gas network by 2022
- » 10% hydrogen in gas pipelines and networks by 2030
- » Western Australian Renewable Hydrogen Strategy

### SA

- » Net zero emissions by 2050
- » Net 100% renewable electricity target in the 2030's
- » South Australia's Hydrogen Action Plan

### VIC

- » Net zero emissions by 2050
- » 50% renewable electricity generation by 2030
- » Victorian Hydrogen Investment Program

### QLD

- » Net zero emissions by 2050
- » 50% renewable electricity generation by 2030
- » Queensland Hydrogen Industry Strategy 2019-2024

### NSW

- » Net zero emissions by 2050
- » 35% emission reduction by 2030
- » Aspirational 10% hydrogen in gas networks by 2030

### ACT

- » Net zero emissions by 2045
- » 100% renewable electricity by 2020
- » ACT Sustainable Energy Policy

### TAS

- » Net zero emissions by 2050
- » 100% renewable electricity by 2022
- » Tasmanian Renewable Hydrogen Action Plan

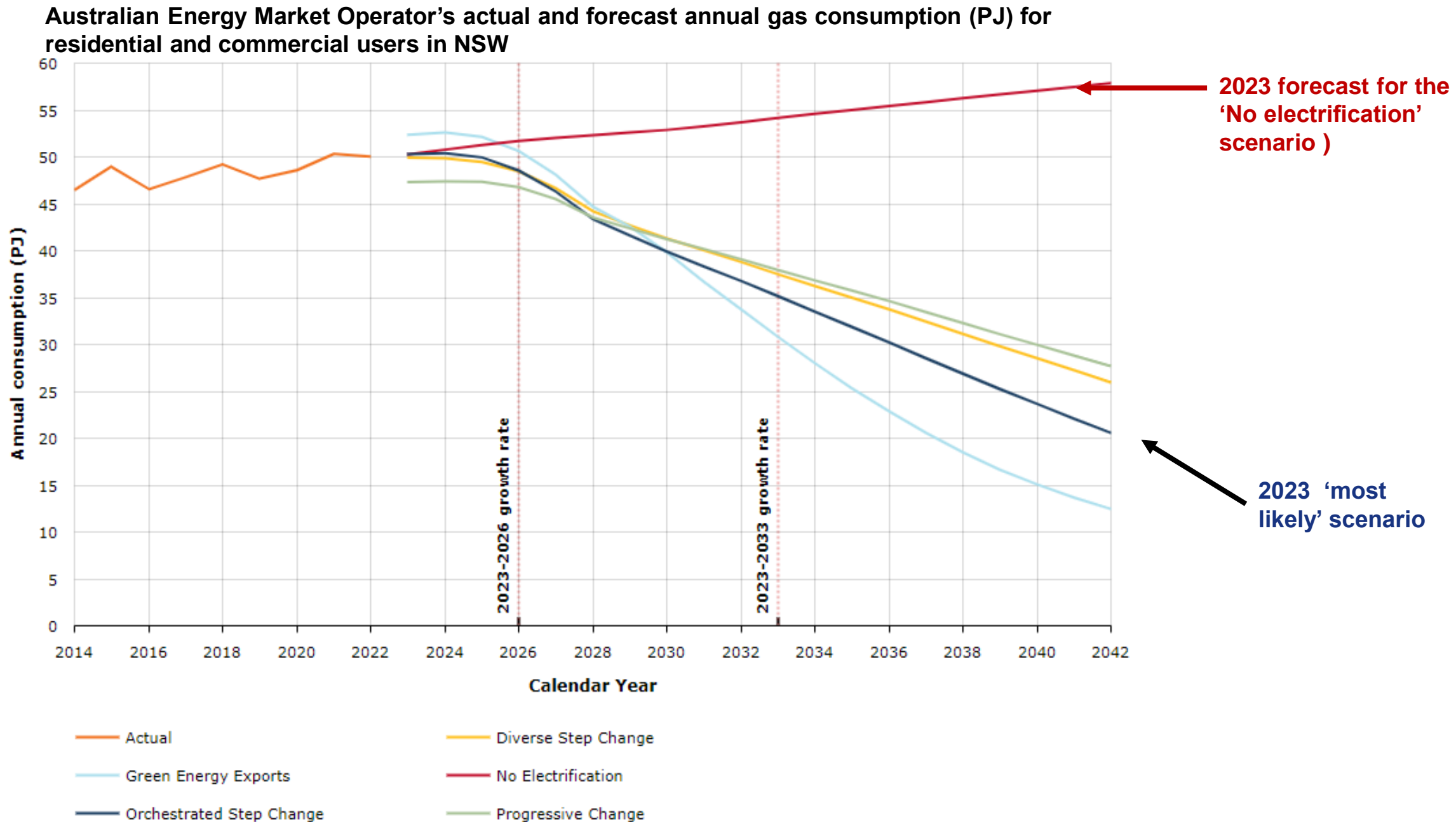
Source: Energy Networks Australia analysis (2020)

## Two-thirds of the ASX 200 have emission reduction targets



*"This Bill records the Government's ambition to take the country forward on climate action – and it reflects our determination to bring people with us. It will help open the way for new jobs, new industries, new technologies and a new era of prosperity for Australian manufacturing."*

# The future is uncertain





# Expert Panel scenarios

*War-time effort, with ambitious policies for net zero and rapid decarbonisation, supported by customers*



## Scenario 1: Electric Hare

Decarbonisation is supported by strong government policy driving electrification across industry and residential customers, with limited use of green fuels for hard to abate sectors



## Scenario 2: Big Hydrogen

Government policy support underpins a hydrogen export economy with a renewable gas target and certification, subsidies, and tax-offsets, driving down the cost of hydrogen production

*Biomethane focus limited to gas-dependent users and Hydrogen is a niche product.*



## Scenario 3: Electric Tortoise

Residential customers slowly electrify and industrial users transition to biomethane, as hydrogen remains not commercially viable. Transition is market-led and is less centrally coordinated

*Biomethane is a stepping stone to the Hydrogen mass market.*



## Scenario 4: Market Hydrogen

A near-term technological breakthrough driven by the market results in renewable gases becoming competitive with electrification, creating a diverse energy mix.

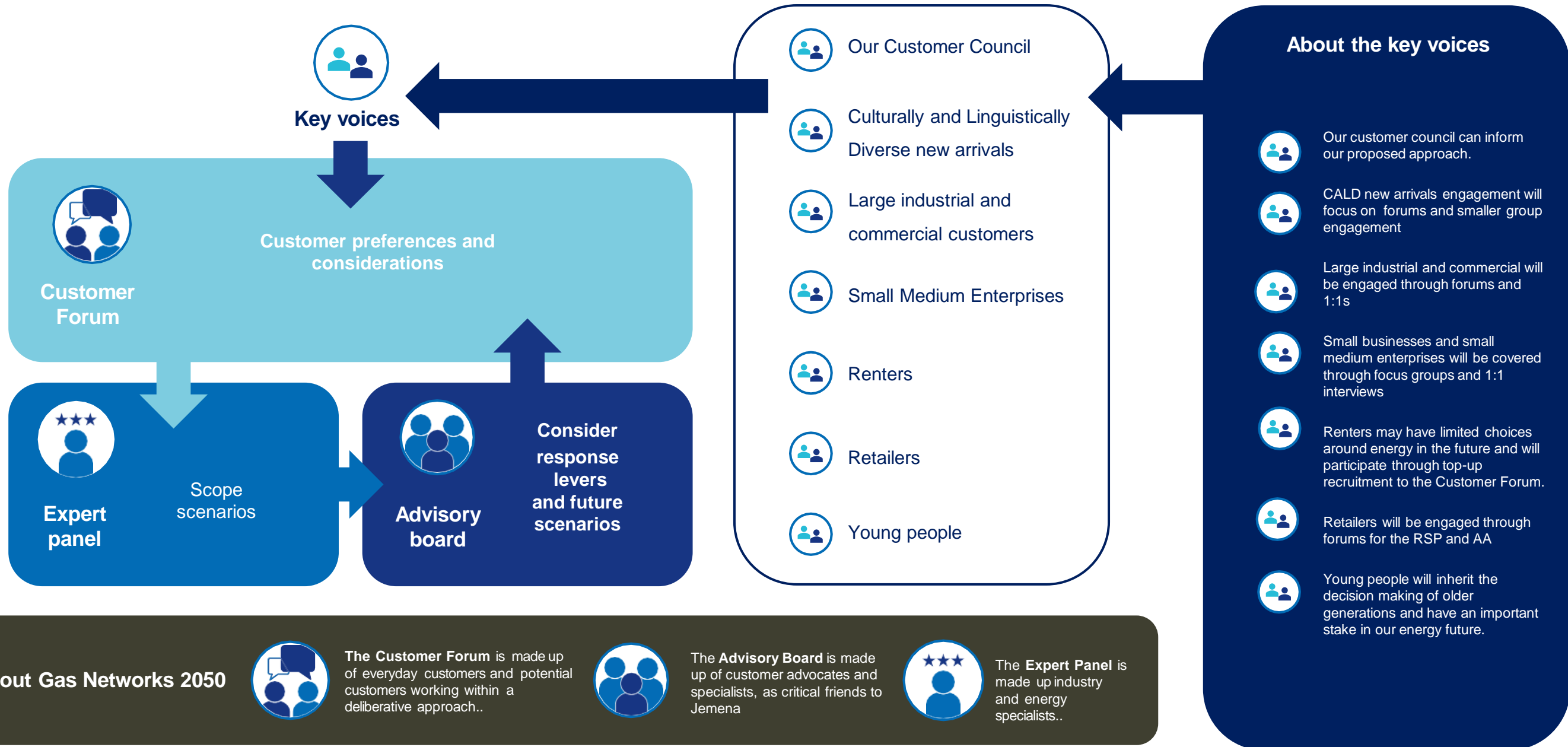
**Renewable gas penetration**

**Market led vs Government led**

*Policy is outcomes-based and low intervention, with a focus on economic affordability. Decarbonisation is driven by the market.*

## Who we're engaging

Engagement for Jemena's access arrangement will be authentic, and rich to really listen to the diverse needs of our customers.



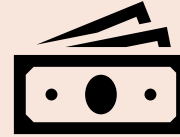
# Your initial thoughts (survey results)

## About you



*What customer values are most important to you?*

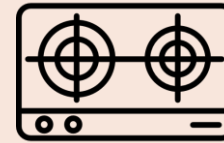
- Reliability
  - Safety
  - Choice
- Environment
- Planning for the future
  - Fairness
  - Affordability



*You are the joint or main decision maker about utilities and use mains gas*



*Gas for hot water*



*Gas for cooking (cooktop)*



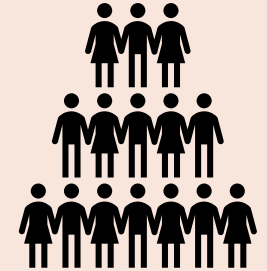
*Gas for a fireplace*



*Gas for a heating system*



*Gas for  
Cooking  
(oven)*



*From across the Greater Sydney area, a diverse mix of employee numbers and sectors including retail, arts and recreation, accommodation and food, information media and telecommunications*

*Q: Are you aware your Council area has introduced a ban on new gas connections?*

*"Yes."*

*"No."*

*"It's better for the environment and sustainable as well."*



# Our questions for you:

What questions do you have for Jemena?

What do you value about gas?

Are you thinking about leaving the gas network? Why or why not?

How do you see your gas use in future?

# What response options are available to Jemena?

- 1) Moving towards renewable gas
- 2) Accelerating capital recovery
- 3) How Jemena manages its assets
- 4) A new approach to connections
- 5) Supporting vulnerable customers
- 6) Digital metering
- 7) Permanent disconnections





# The parable of the coffee shop

Imagine you are a coffee shop owner.

You have a monopoly of the street you operate in so the prices you charge customers needs to be approved by the regulator.

You invest in a coffee machine every 7 years. You just invested in one this year.

The government then announces that there may be a phasing out of coffee in the future. Some people think coffee is unhealthy which is starting to gain momentum via social media and published expert reports!

There is a risk that customer's may start reducing their demand for coffee causing uncertainty on what the future looks like for the coffee shop.

## Hummingbird coffee shop



How do you invest your money and set prices to address the uncertainty caused by the possible decline on coffee demand?

1. **Increase prices** immediately (before customers stop drinking coffee), to recoup your investment in the coffee machine
2. **Re-vamp your coffee machine and shop** into a tea and coffee café and start introducing customers to teas.
3. **Both?**



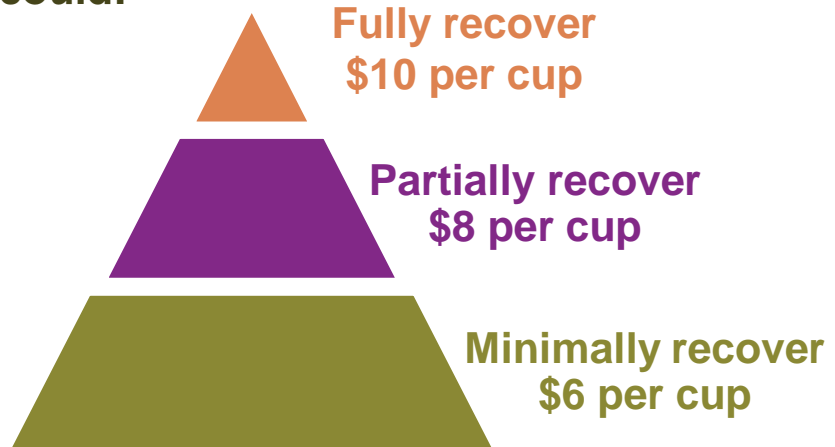
# Making coffee under uncertainty

## Recovering the cost of the coffee machine

As the Coffee shop owner, you currently charge \$5 per cup of coffee as approved by the regulator. Would you increase prices now, before customers stop drinking coffee, to recover the cost of your coffee machine?

### Hummingbird coffee shop

Subject to regulatory approval you could:



## Revamping to tea

As the Coffee shop owner. Would you start investing in revamping your coffee shop and equipment to provide tea and coffee? And start introducing customers to teas?

### Sip 'n' Petals tea house

*Do people like tea?*

*What's the competition?*

*Will I recoup my costs?*

Partially revamp

Fully revamp

Don't revamp



## How do you decide?

Would you just do one? Or both?  
Are there other measures you would take?



# Contextualising the short and long-term

As a gas network, we can take a range of short-term and long-term actions to address risk. There are pros and cons of anything we do to address uncertainty. We need your help deciding what we should do.



## Managing financial risk

### Coffee shop

Recovering the cost of the coffee machine by charging more for a cup of coffee

### Natural gas network

Increase network prices now, before customers leave, so that we can recover our costs (and future customers avoid a price shock)



## Re-vamping our network to carry renewable gas

Redesigning the coffee machine to make coffee and tea

Re-vamp our network so that it can carry renewable gases



## Reducing maintenance

Repair the coffee machine once a year instead of once every 6 months

Maintain ageing pipelines less often

# What is renewable gas?

## Biomethane

Biomethane is a form of renewable methane which is captured from decomposing organic materials such as agricultural waste, landfill and sewerage. It has the same properties as natural gas, and therefore it requires no customer appliance changes.

### Malabar Biomethane Injection Plant

Demonstration project where gas is generated by anaerobic digestion of sewage sludge at Malabar, Sydney.



## Green Hydrogen

Green hydrogen is made when renewable electricity is used to split water into hydrogen and oxygen through a process called electrolysis.

### Western Sydney Green Hydrogen Hub

Demonstration project and storage trial



## Synthetic Methane

Synthetic methane is a variety of natural gas alternatives that have the same properties as natural gas. Depending on the fuel source, Synthetic Methane can be a low-carbon or even carbon-free substitute for fossil fuels e.g., Methanation

### CSIRO Methanation Trial

Supporting a project testing the methanation of green hydrogen





# Coffee shop parable: accelerating capital recovery

Every **7 years**, you invest **\$7,000** in a new coffee machine



La Pavoni Commercial Volumetric  
2 Group Espresso Machine

You sell **200 cups** of coffee per year...  
at **\$5 per cup**.

Each year, you get **\$1,000** in revenue  
(\$5 X 200 cups)

It takes **7 years** to recover your coffee machine.  
(\$1,000 X 7 years)



However, the government has announced that:

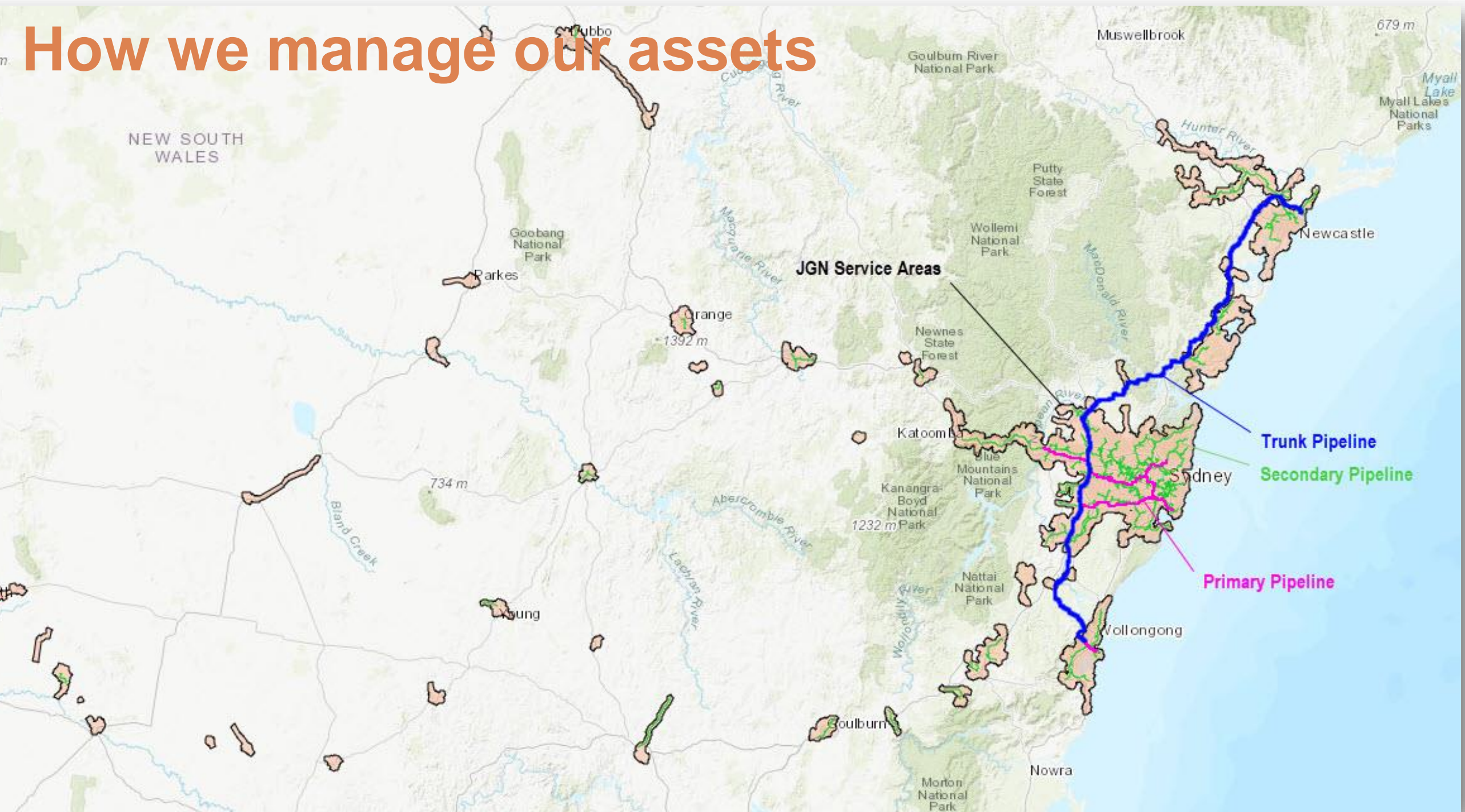
- There may be a phasing out in coffee in the future
- There is a risk that demand for your coffee will start declining in the next 7 years.

**How do you price your coffee after the government announcements?**

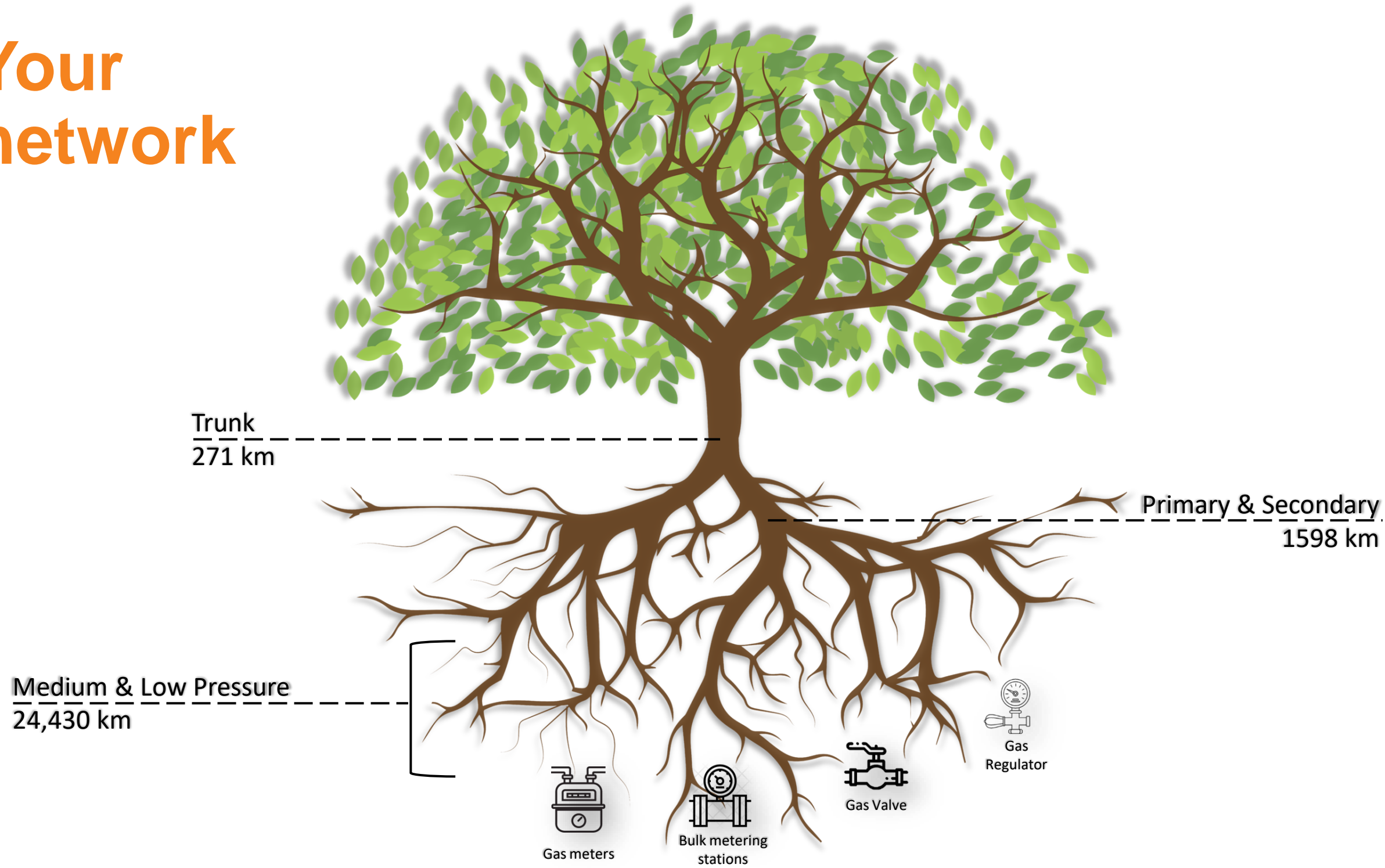
With the challenges resulting from the uncertain future role of gas networks how fast should we speed up our recovery of assets?



# How we manage our assets



# Your network



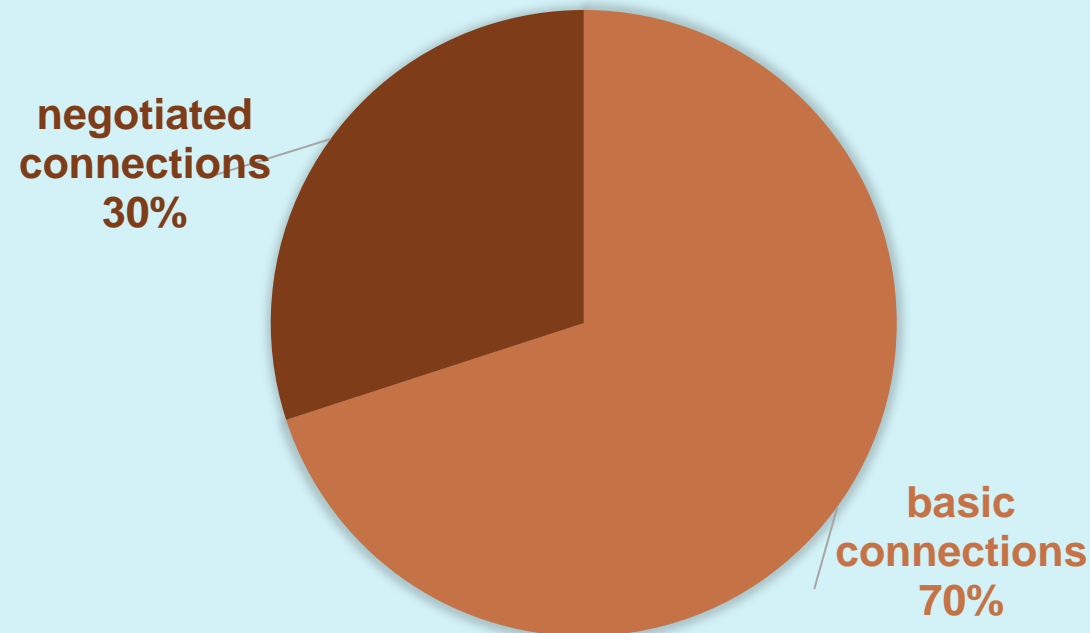


# A new approach to connections – connecting to our network

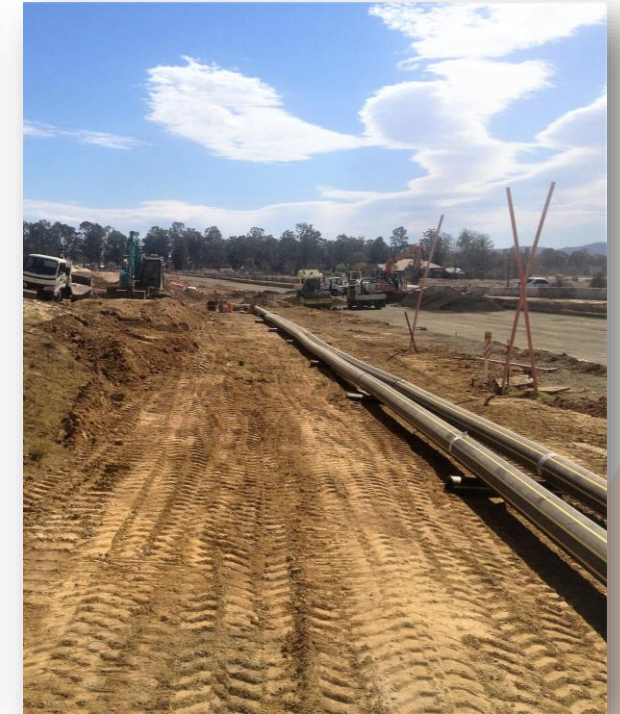
Currently, the costs of 'basic connections' are largely shared by customers across the network.

- **Basic** connections refer to **simple** connections, e.g. connections to new homes
- **Complex** connections are typically **negotiated**, e.g. new connections to high rise buildings and industrial customers

Given the future uncertainty of the gas network, consideration should be given to how we charge for new connections.



Example of a connection to a residence (a basic connection)



Example of a connection to a new estate (a negotiated connection)

Should 'basic connections' continue to be shared amongst the broader customer base?

# Supporting vulnerable customers

**Voices for Power 'Train the Trainer' Project (NSW)**

**Uniting Energy Assist Program**

**Bring your bill days (VIC)**

**Aboriginal Workforce Mentoring Program**

**Community Grants Program**

**Sponsorships and donations**

**Energy Charter #BetterTogether - Knock to Stay Connected (Trial)**

**Energy Charter #BetterTogether - Cost of Living Initiative**



# About digital gas meters

## Challenges

- Safety
- Sudden high bills
- Safe and timely disconnection
- Location and accessibility of meters

## Solution

- Accurate and on-demand reads
- Able to disconnect remotely
- Ease of energy consumption monitoring
- Smaller size

*But they're not a cheap solution!*



## Examples of digital gas meters





# About permanent disconnections



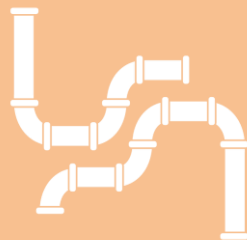
A request for a permanent disconnection from the gas network is received.



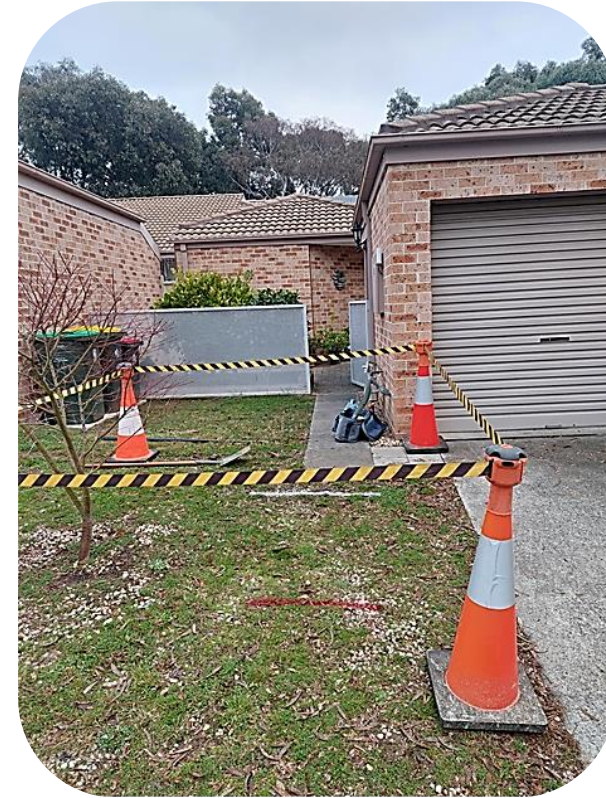
A customer may permanently disconnect if they decide to remove all their gas appliances.



For safety reasons, a customer must be disconnected if they are renovating or developing the site.



The meter is removed, the gas service is cut from the gas mains.



**Above: some of the many steps involved – marking off the area, excavating and clamping the pipe.**

Should the individual customer continue to pay for the disconnection cost or should it be shared amongst the broader customer base?

# Questions:

- What questions do you have about these areas?
- Thinking about these responses, is there anything you want Jemena to keep in mind?
- Which ones are interested in exploring in more detail in the next session?
- What are the critical issues for you?

# Final words from you

- How are you feeling about what you've discussed today?
- In 30s seconds: what would make you feel that Jemena has listened to small business voices?



# Thank you!

We will see you online for our next session

Wednesday 8 November 6 pm - 7.30pm

Any feedback:  
[GasNetworks2050@jemena.com.au](mailto:GasNetworks2050@jemena.com.au)

CRNRSTONE Research will be in touch with  
your stipends!

