

Gas Networks 2050

Access Arrangement

Small Business Forum 2 of 2

(with group 2)

8 November 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

Reintroductions and
report back



02

Exploring response
areas (as nominated
by you!)



03

Thank you and next
steps.



This session is being recorded

Your guides for today



Andre Kersting
Gas Networks
Regulation Manager
Jemena



Brent Davis
Business Development Manager
Jemena



Merryn Spencer
Engagement Lead
Jemena

Welcome to our observers!

Playback: what you 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 need 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."

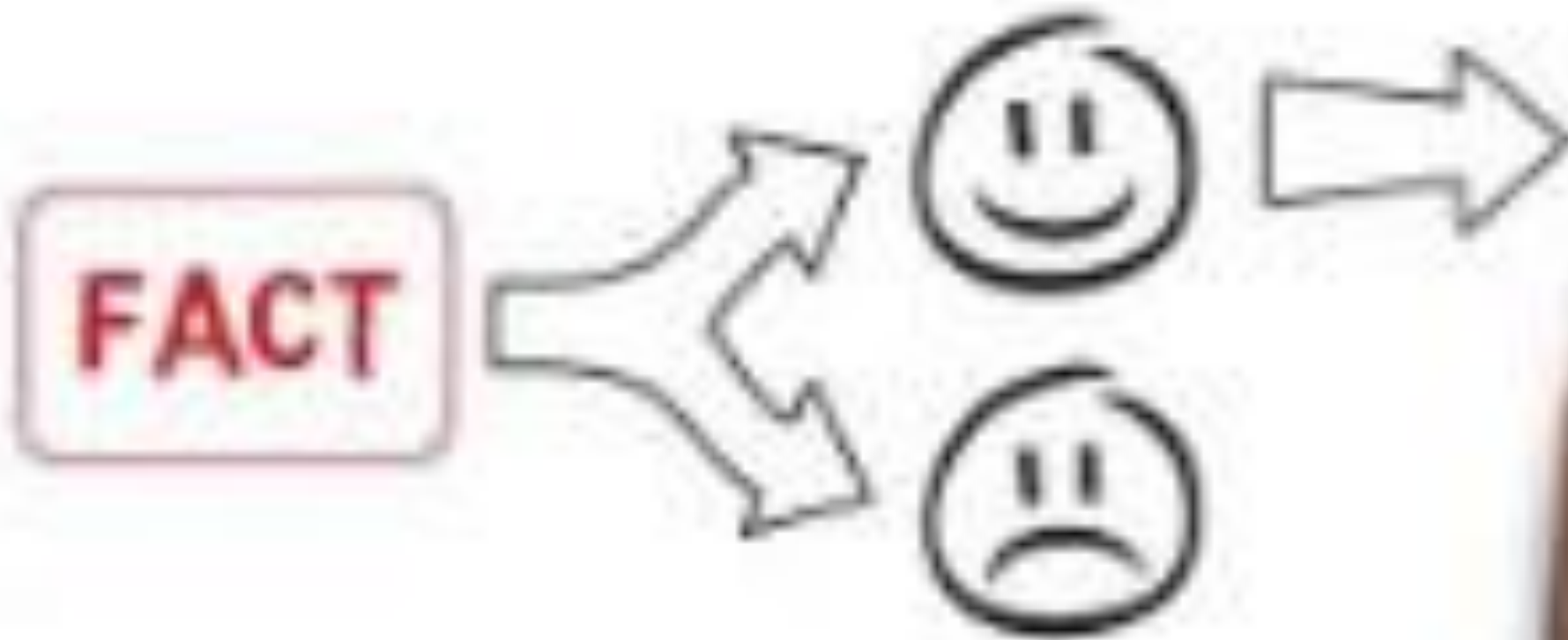
"I'd die without my gas cooking (...) but having said that, most of the restaurants and all the top chefs in Sydney use induction cooking and they're saying they're you know, it's better than gas. (...) I think it's just this mindset that I have that gas is better for cooking."

The responses we're exploring today

- 1) Moving towards renewable gas
- 2) Accelerating capital recovery
- 3) A new approach to connections
- 7) Permanent disconnections



4. CONFIRMATION BIAS



Keep moving towards renewable gas



International settings for renewable gas



United States

Biomethane:

- 2,300 sites producing biogas across 50 states
- Primary pathway: landfill gas collection

Hydrogen:

- Comprehensive policy and funding support introduced in IRA 2022 paves way for US to become the global leader in renewable energy production and export
- Total of US\$369bn funding and tax credits earmarked to support energy security and transition



Latin America

Biomethane:

- Holds ~20% of global bioenergy potential

Hydrogen:

- Significant renewable hydrogen potential harnessing world class and low-cost solar, wind and hydro resources



Middle East & North Africa

Hydrogen:

- Significant renewable hydrogen ambitions among various member countries, with individual and collective national hydrogen strategies (e.g. Saudi Arabia, Oman, UAE, Egypt, Africa Green Hydrogen Alliance).
- Harness region's substantial renewable energy resources and location as gateway between key EU and Asian markets



Europe

Biomethane:

- 20,000 biogas plants in Europe - 10,000 in Germany alone
- >25% biomethane in Denmark's gas networks and >11% in Italy

Hydrogen:

- Key pillar of EU decarbonization and energy security strategy – target of 65% system demand from renewable hydrogen by 2030.
- Policy frameworks and dedicated funding mechanisms under implementation



United Kingdom

Biomethane:

More than 80 biomethane plants connected to the grid

- Green Gas Certification Scheme,

Hydrogen:

- Low-carbon hydrogen production capacity ambition of 10GW by 2030
- Launched policy consultation and funding rounds (from £240m) to support hydrogen development.



Asia

Biomethane:

- Holds ~30% of global bioenergy potential
- Policies support household digesters in rural China

Hydrogen

- Leading region in the development of renewable hydrogen production and equipment manufacturing capacity (India, China)
- Leading region in the development of global hydrogen supply chain – investing heavily in import infrastructure, transport and storage technologies (Japan, Korea)

What is happening in Australia



National Hydrogen Strategy

The development of a hydrogen industry, including hydrogen 'hubs' and a certification process.



Australia's Bioenergy Roadmap

Identifies the role that the bioenergy sector can play in Australia's energy transition.



GreenPower Renewable Gas Certification

Enable voluntary purchases to help displace natural gas with low-emission renewable gas such as biomethane, biogas and renewable hydrogen.

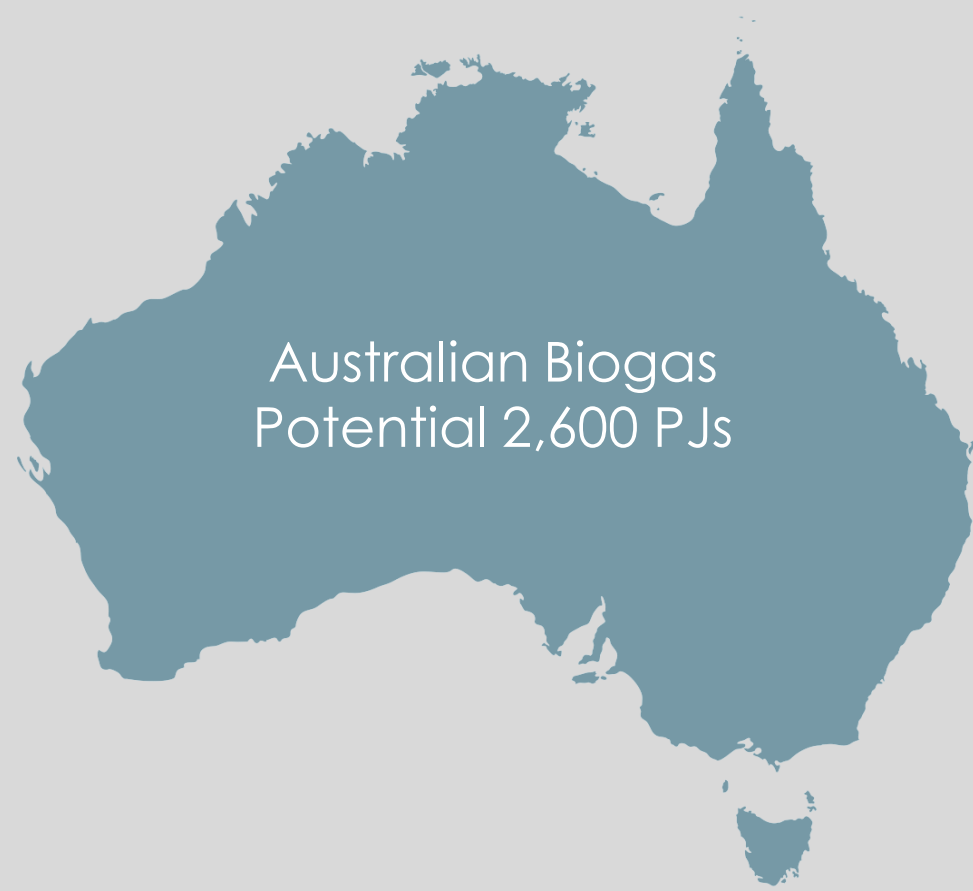


Renewable Fuel Scheme

Support the growth of new supply chains to improve the affordability, reliability and sustainability of green hydrogen in NSW to help industries remain competitive as international markets decarbonise

Hydrogen Strategy:

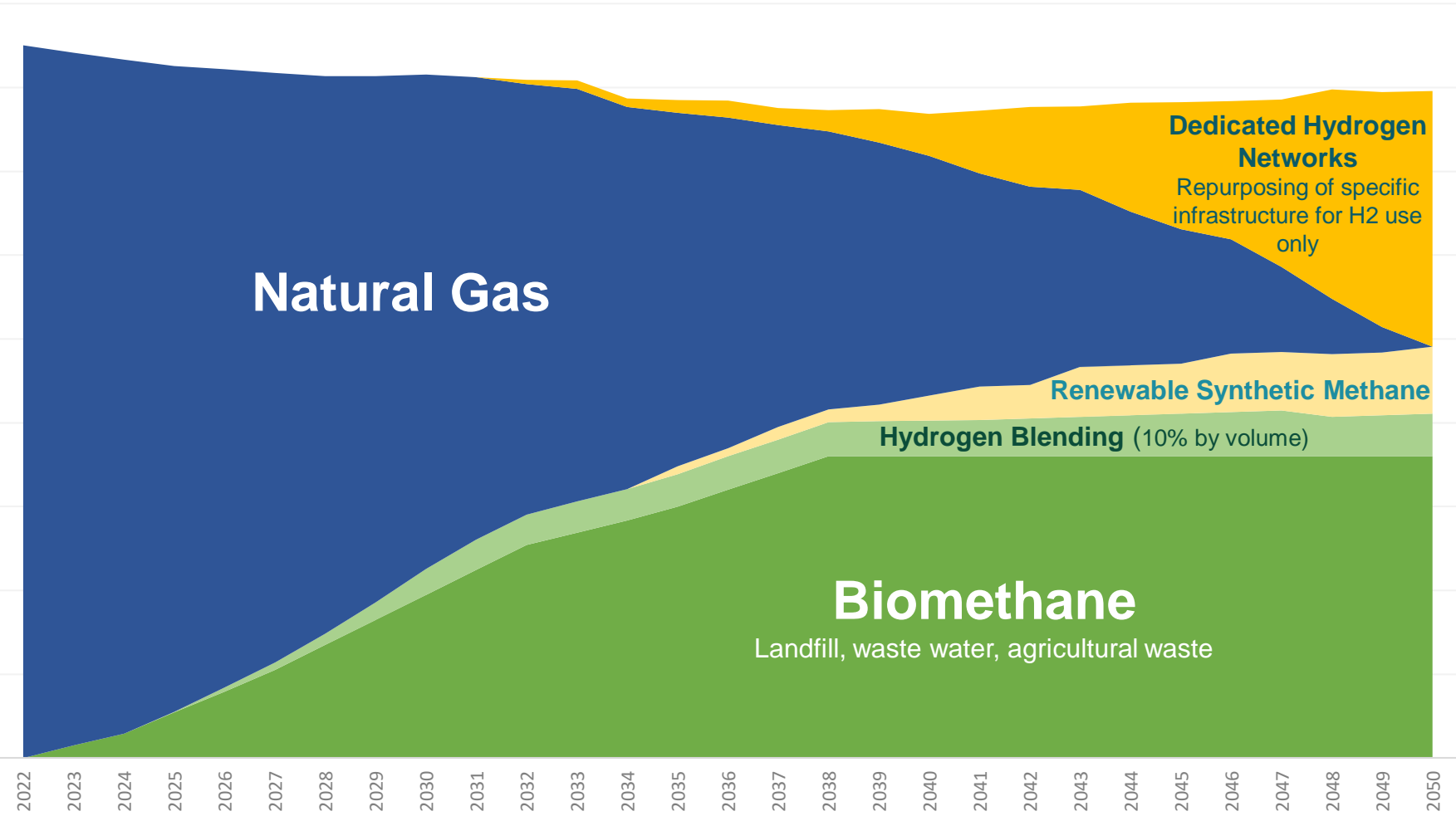
NSW Hydrogen Strategy with over \$150M hydrogen funding and stretch target of 10% blending in gas networks by 2030



Biogas in proximity to Jemena's NSW Gas Network

Potential blends of gas in the network

Illustrative example of a blend of renewable gas in a gas network



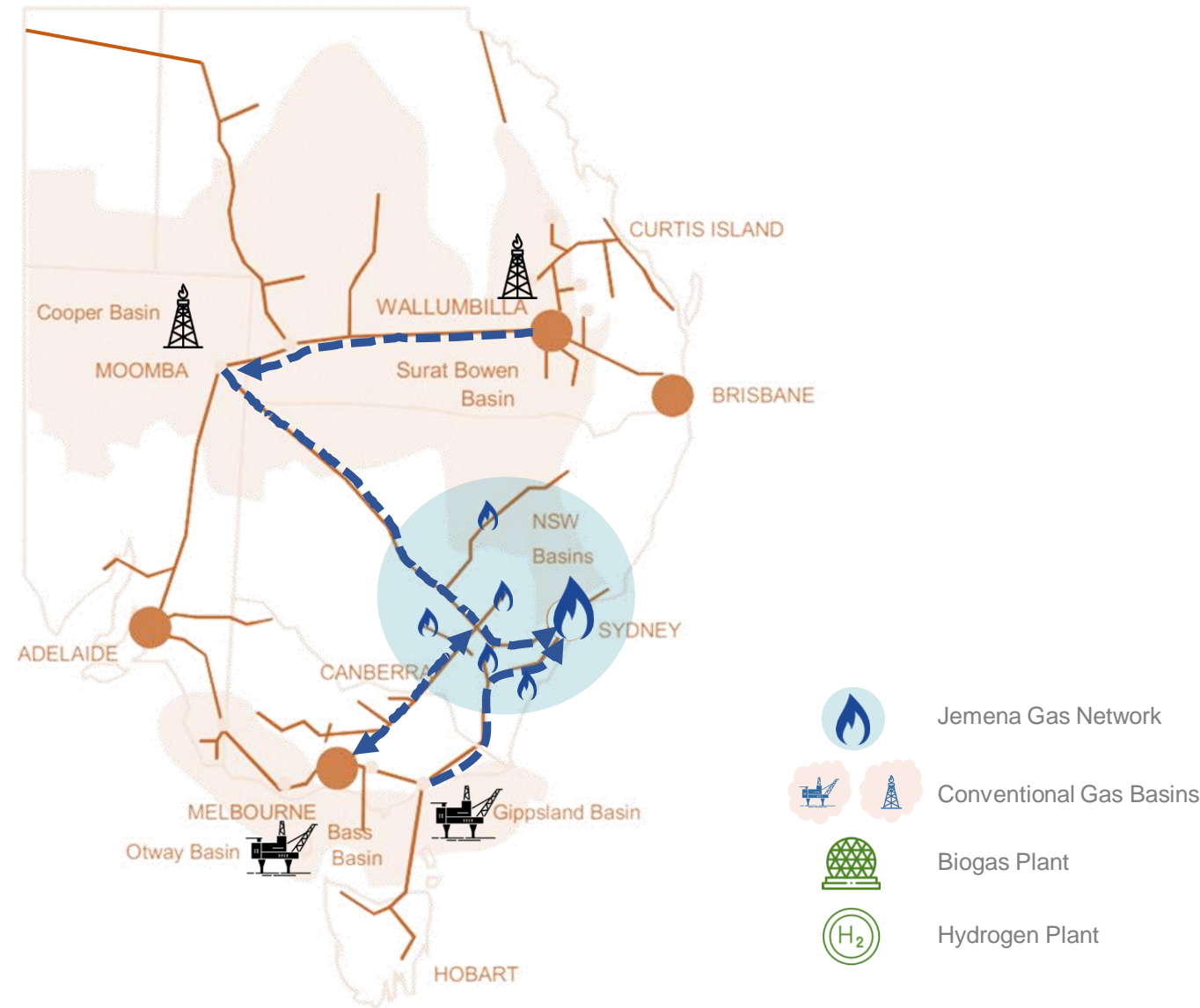
Gas supplied into the network will evolve and the way we utilise the network will change.



Gas supply now and into the future

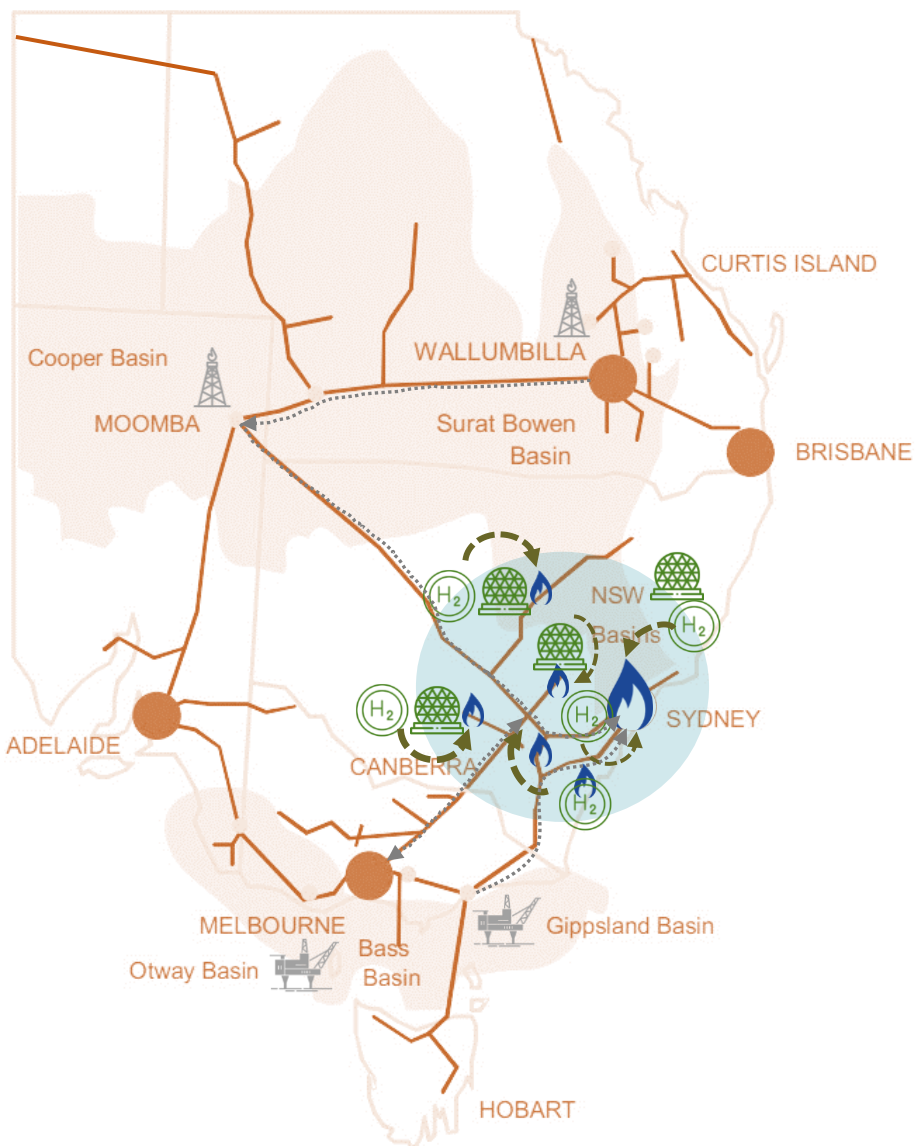
Current State

Gas has come from a few, very large gas basins which are a long way from where we use our gas, being supplied by large transmission pipelines.

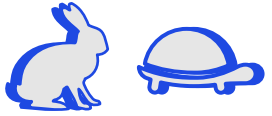


Future Potential

Gas could be sourced from a decentralised network of local smaller-scale renewable gas production facilities.



Renewable Gas – regulatory response slider



electrification future on its own

Renewable Gas connections in the future

electrification working with renewable gases



DO NOT pursue any renewable gas connections

SUPPORT renewable gas connections

EXPEDITE renewable gas connections

Renewable gas blend

None

~10% renewable gas blend by 2030

~20% renewable gas blend by 2030

Electrification

Households may need to electrify earlier

Some households may delay electrification

Some households may delay electrification

Customer retention

Customer numbers may decline over time more quickly

More customers are retained on the gas network

More customers are retained on the gas network

Reliability in regional areas

No change to gas supply reliability in regional areas

Gas supply reliability in regional areas slightly improved

Gas supply reliability in regional areas slightly improved

Bill impact, 2025-30

Bill impact, 2025-30

\$3 a yr

Bill impact, 2025-30

\$6 a yr

If significant numbers of customers leave the gas network, bills may increase

Consider: where would you vote?

Coffee shop parable: Making coffee under uncertainty

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 revenues (\$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 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!

Demand for your coffee will start declining in the next 7 years. How do you price your coffee after the government announcements?

Situation without government announcements

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Price per cup of coffee	\$5	\$5	\$5	\$5	\$5	\$5	\$5
Coffee cups sold (demand)	200	200	200	200	200	200	200
Cost recovered	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000

Total cost recovered in 7 years: **\$7,000**

How would you price
your coffee in the future?

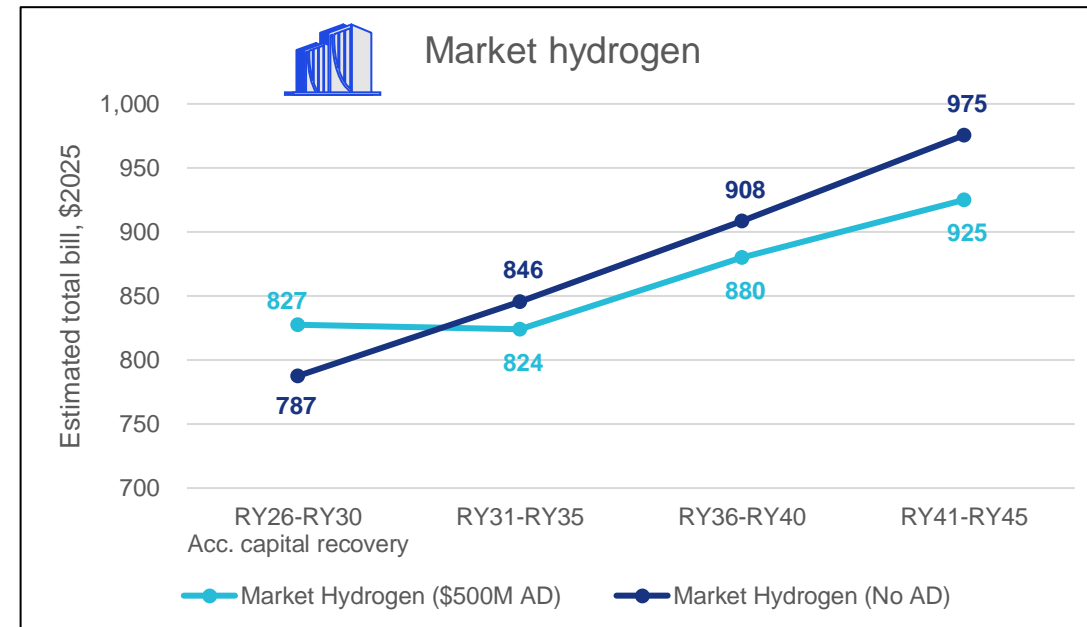
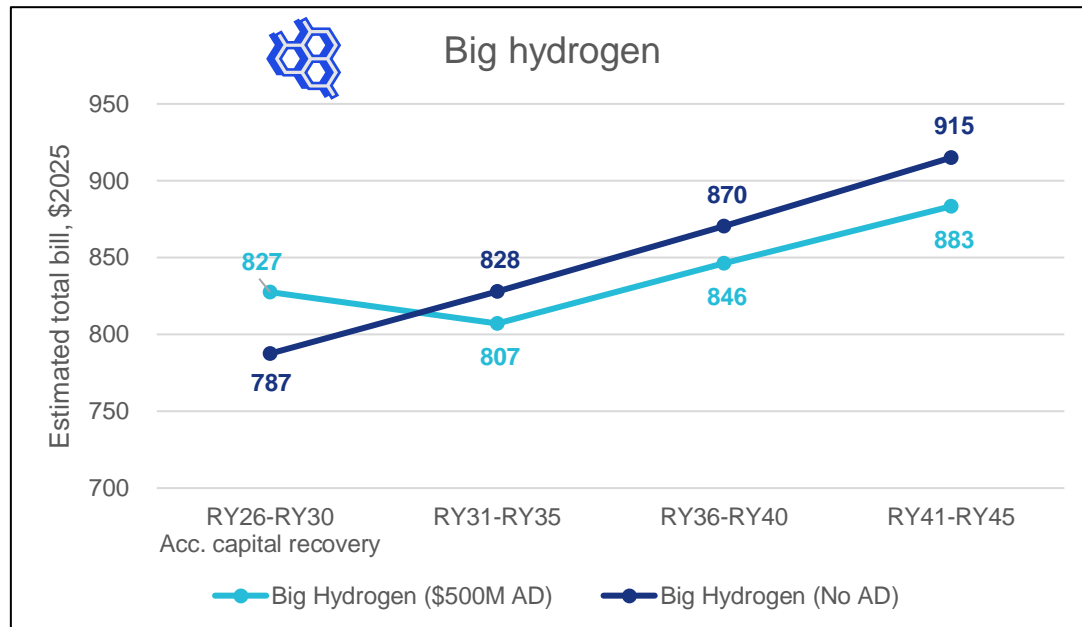
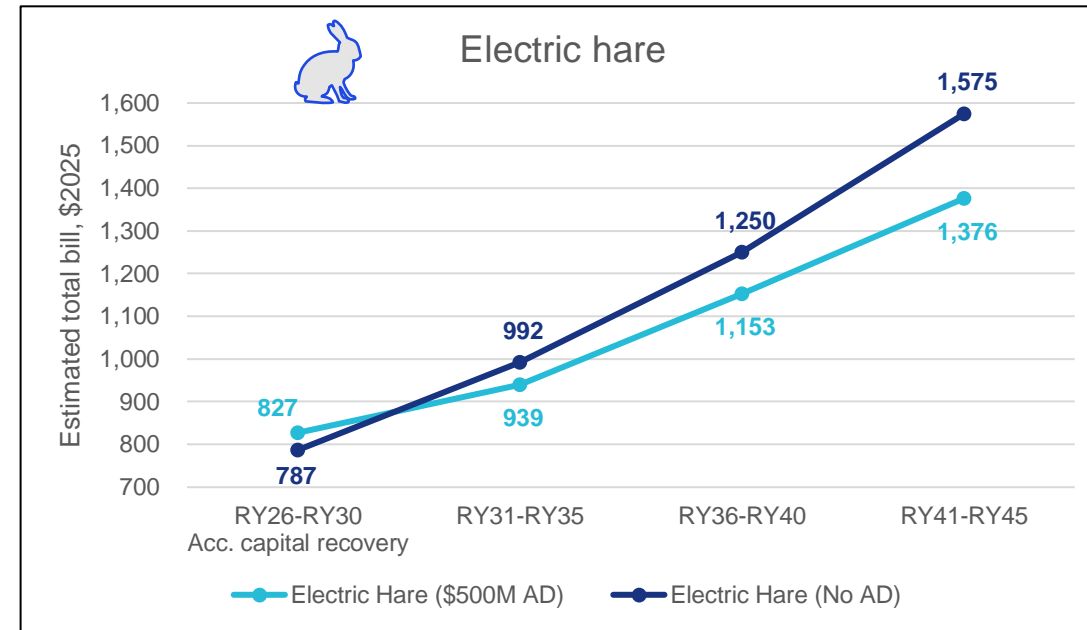
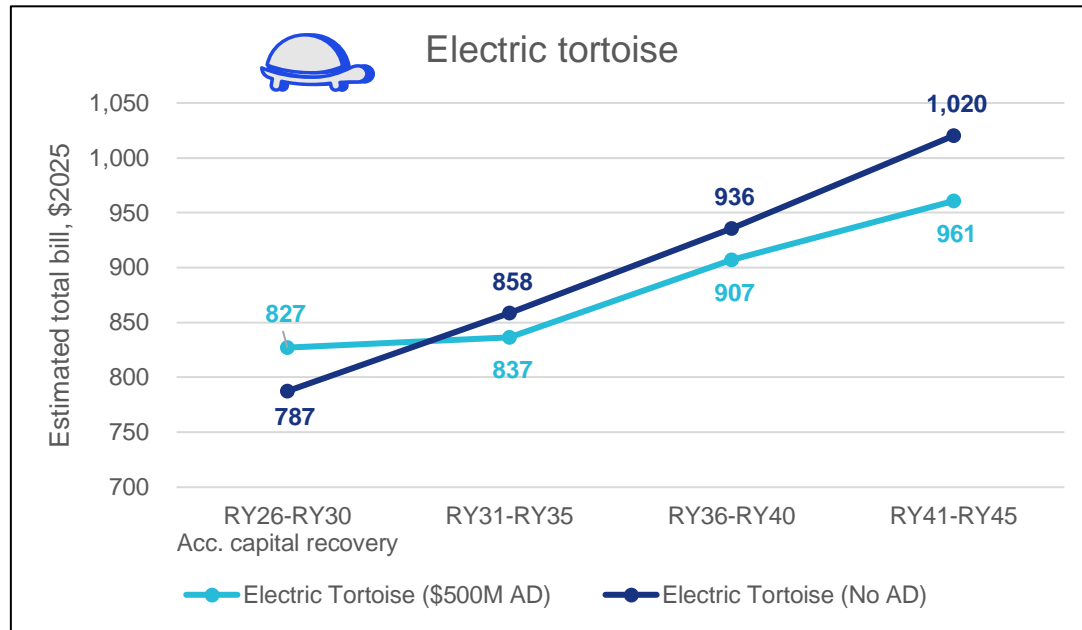
**What are the
considerations?**

What are the considerations?



Increase prices by a little right now							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Price per coffee	\$8	\$8	\$15	\$15	\$15	\$20	\$25
Coffee cups sold (demand)	200	150	150	50	50	10	10
Cost recovered	\$1.6k	\$1.2k	\$2.3k	\$0.8k	\$0.8k	\$0.2k	\$0.3k
Total cost recovered in 7 years: \$7,000							

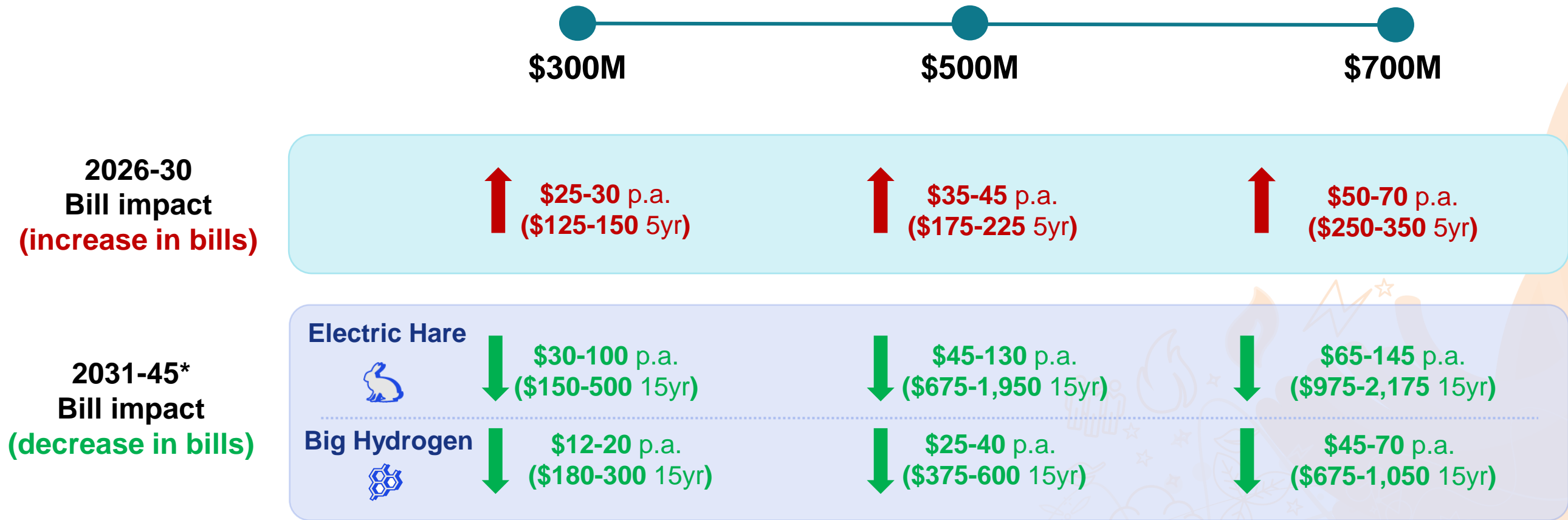
Estimated bill, with and without accelerating capital recovery



Accelerating capital recovery – regulatory response slider

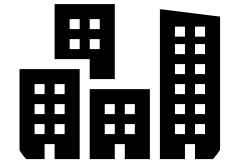
To what extent should we accelerate capital recovery?

Accelerate capital recovery in 2025-30:



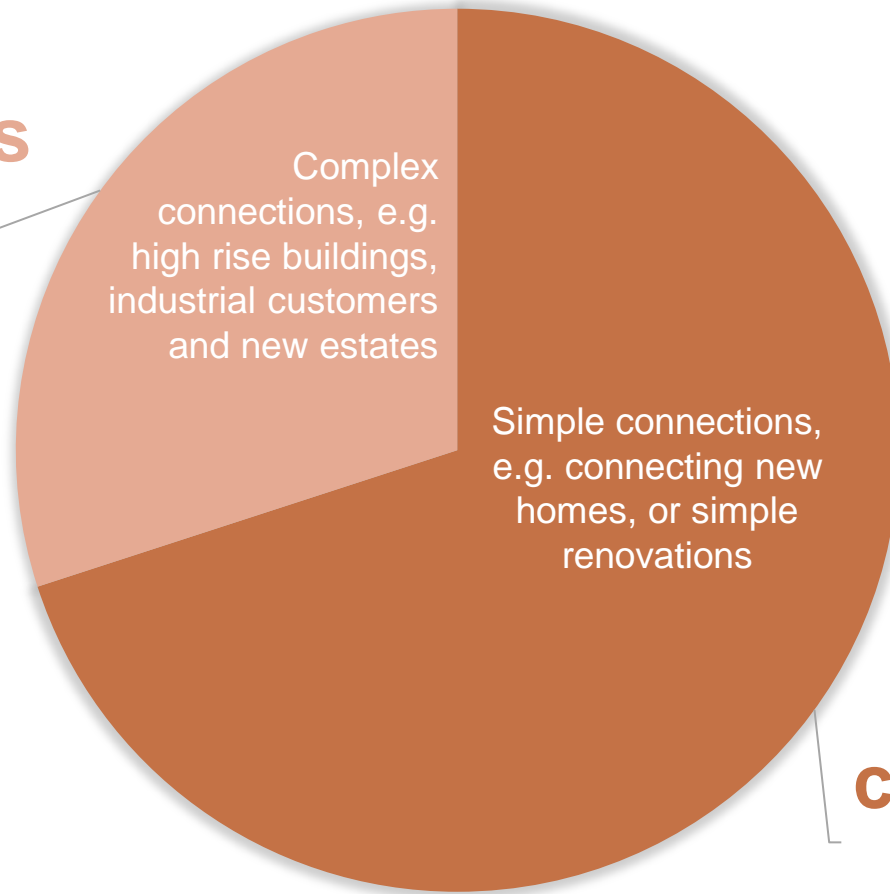
Consider: where would you vote?

Connecting to our network



**negotiated
connections**
30%

Complex
connections, e.g.
high rise buildings,
industrial customers
and new estates



Most new connections are
basic connections



**basic
connections**
70%



Split of new connections: basic vs negotiated

Connection charges

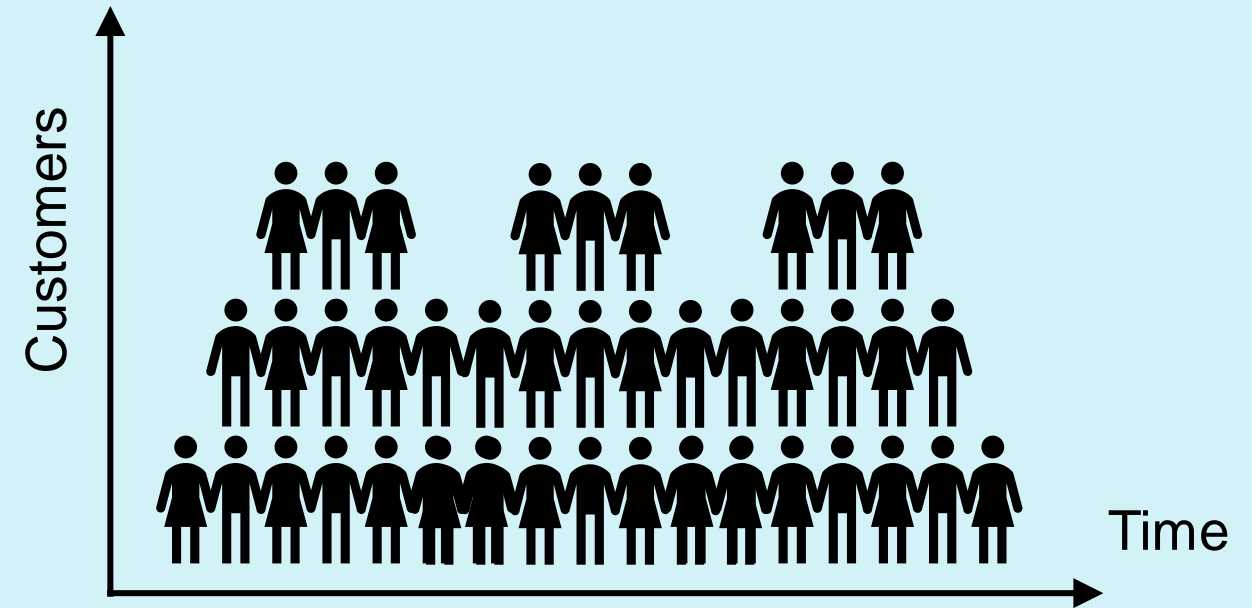
Connection charges

We are allowed to charge an upfront amount that allows us to “break even”



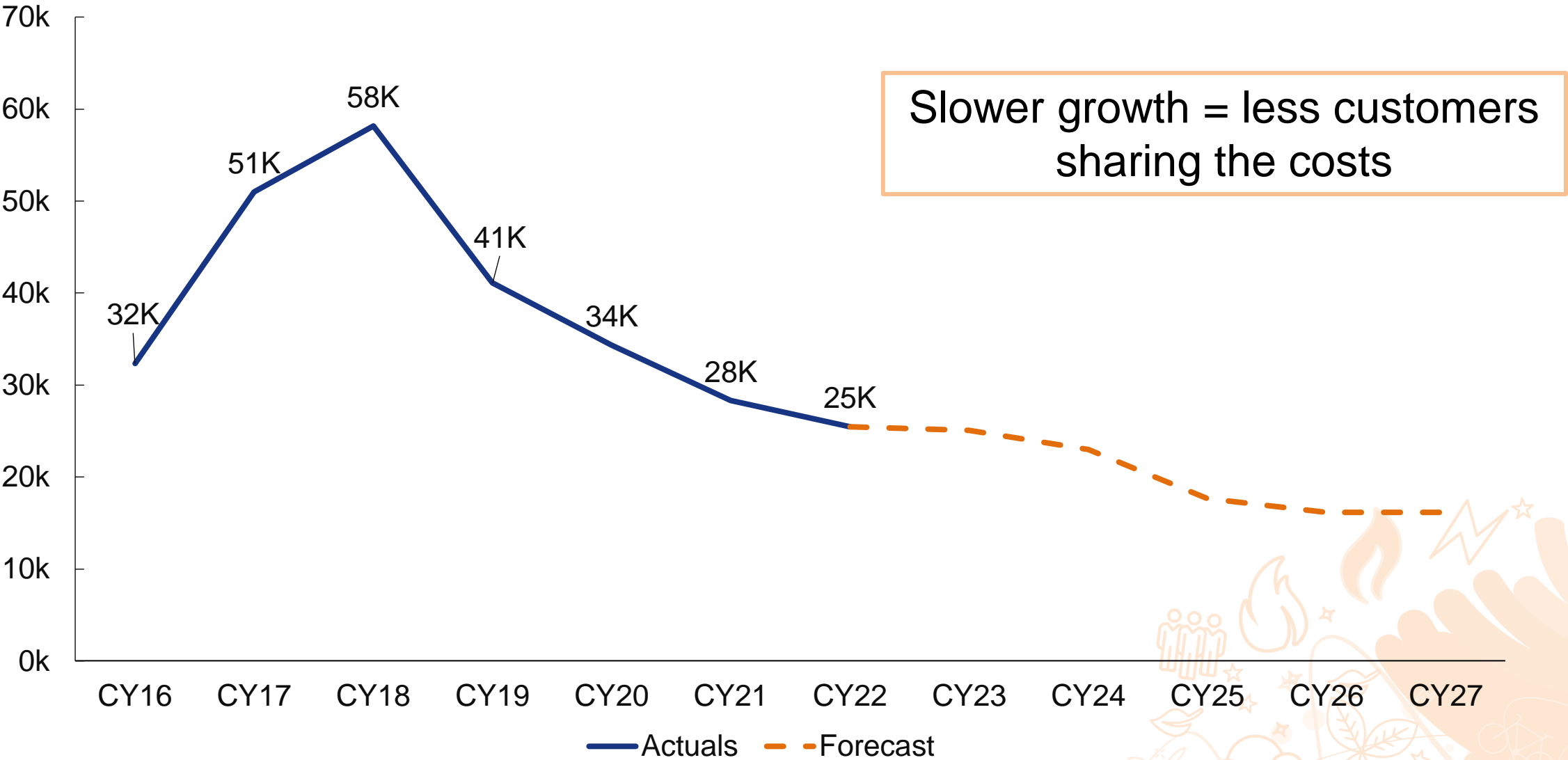
The amount we charge for a new connection must not exceed the difference between our costs and revenues derived

Currently, the cost of new connections is recovered over many years, across the customer base



This method of **sharing** costs is what enabled us to **keep connection charges low**.
More customers means that our fixed costs are spread over a larger customer base.

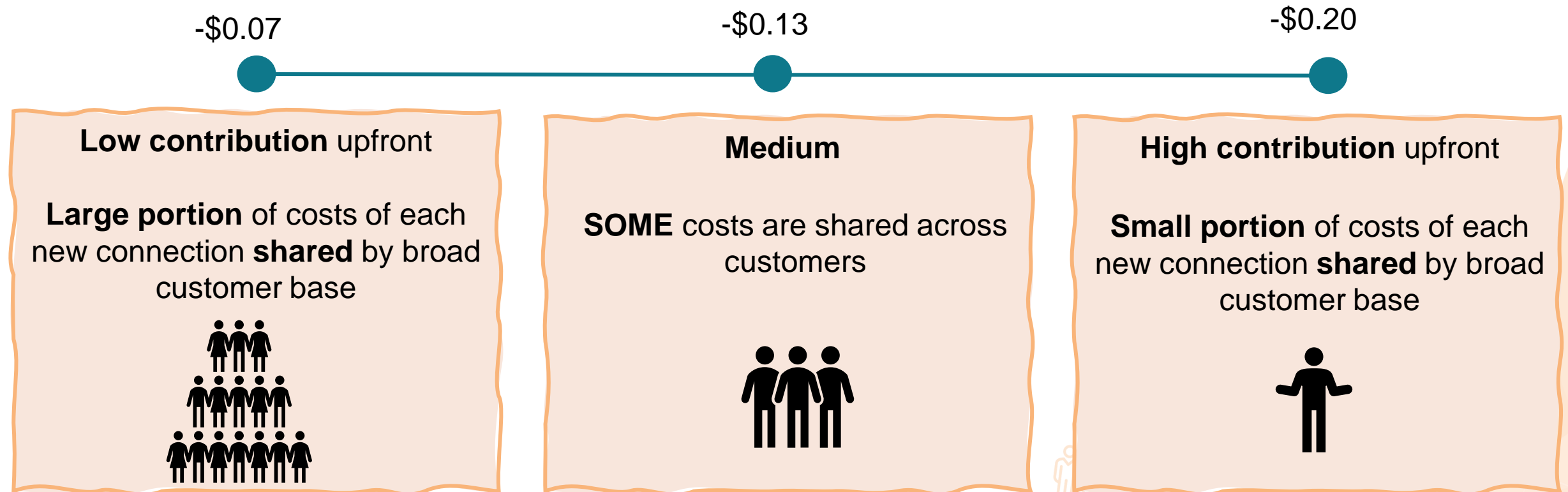
New connections growth



Regulatory response slider

In the context of current uncertainty about the future role of our network, should we reconsider our current approach to how we charge for connections?

Should costs be largely spread across the customer base or should new customers pay a greater portion upfront?



These bill impacts do not account for changes in new connection numbers that could result from customers choosing not to connect because of higher contribution charges. If less customers connect, our costs will need to be shared across a lower customer base potentially resulting in higher bills.

Permanent disconnections

What

Steps involved in a permanent disconnection

- 1 Meter is removed from the premise
- 2 Customer service is cut from the main and capped
- 3 While the service is left on the property it is no longer “live” and has no gas
- 4 After permanently disconnecting, a customer needs a new connection to get gas again

Why

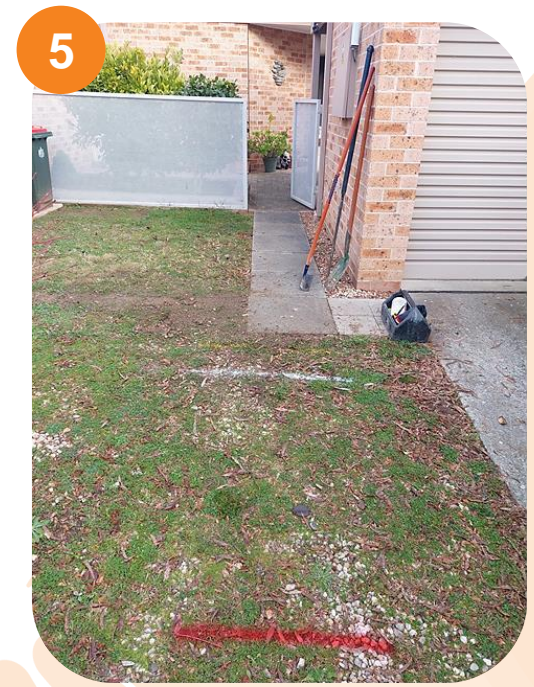
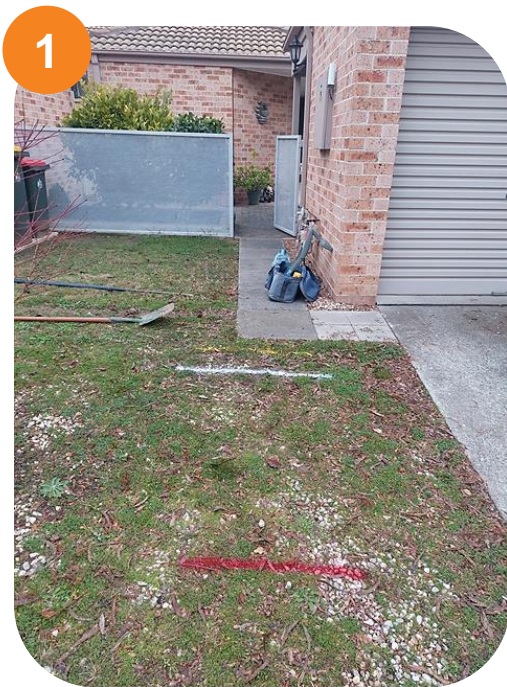
A permanent disconnection may be required for safety reasons, e.g. if someone is doing a knock down/rebuild of their house, or if the site is being developed.

If customers remove all their gas appliances, they may choose to permanently disconnect from the gas network

How many

In recent years, approximately 4,000 customers permanently disconnect from the gas network.

A look at permanent disconnections



Current cost of permanently disconnecting



Cost

Currently, residential customers are charged around **\$1,400 (including GST)** to permanently disconnect from the gas network.



Who pays

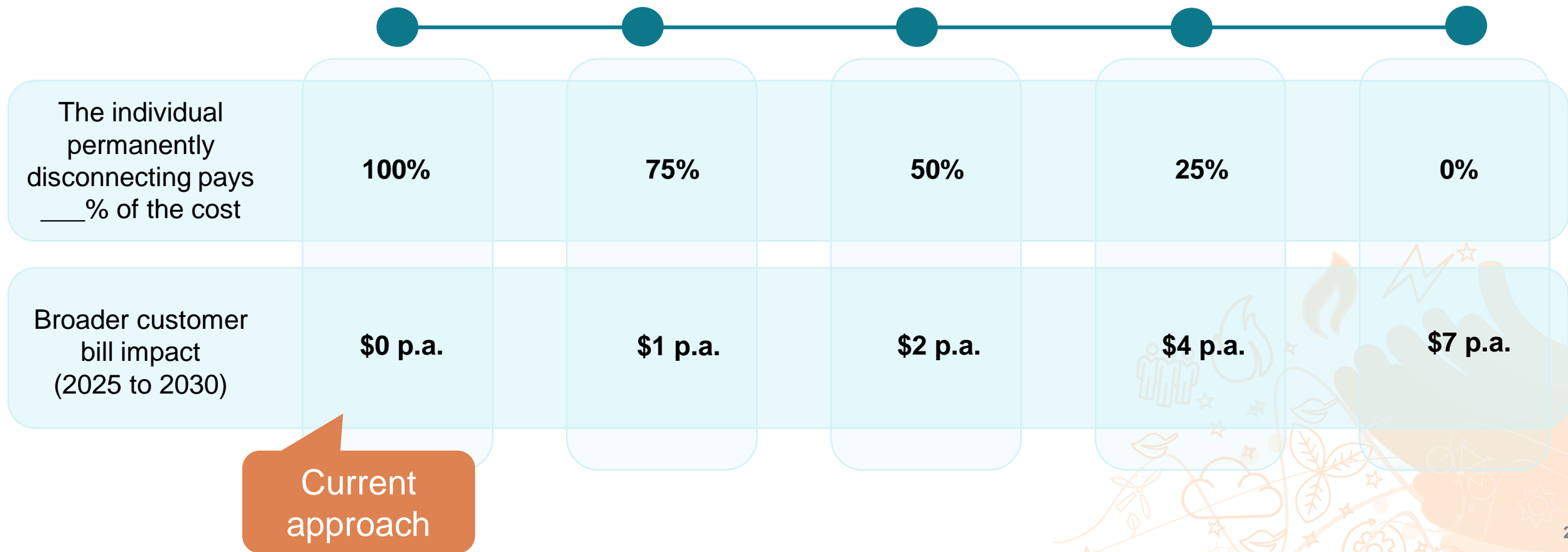
For Jemena, the customer requesting the permanent disconnection pays for it.

In some cases, the cost of permanent disconnection cannot be recovered from the customer.

Regulatory response slider

Permanent disconnections

If an individual permanently disconnects from the gas network, what proportion of that disconnection cost should be shared amongst the broader gas network's customer base?

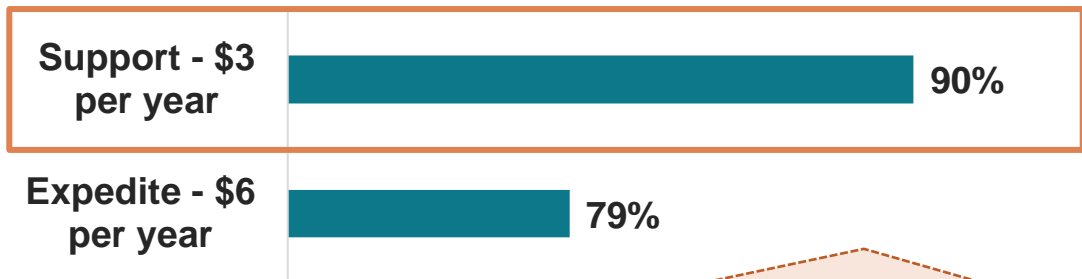


Let's hear from you! Voting on menti



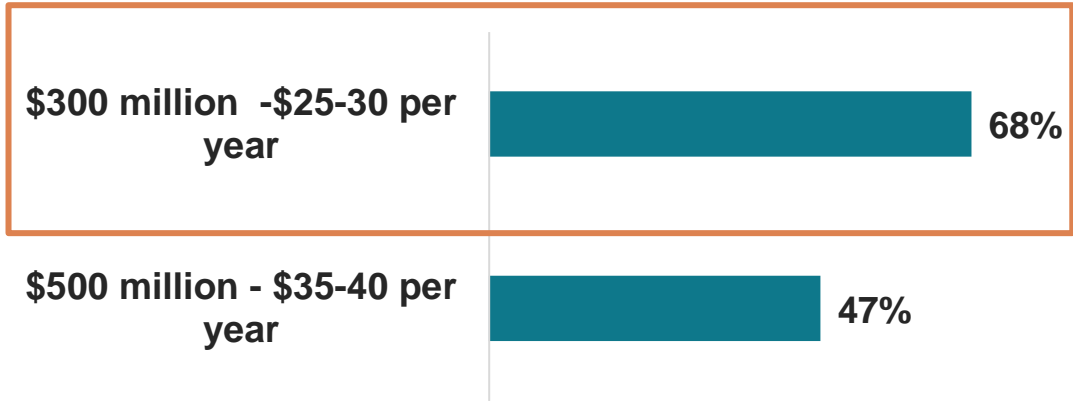
Where residential customers landed

Moving towards renewable gas:



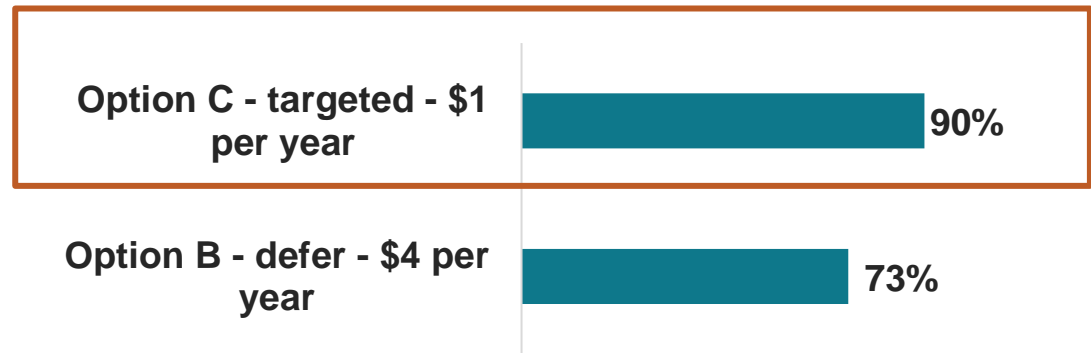
“To continue to invest and research in pilot studies and trials to properly study the safety of new / renewable gas networks (all aspects – from supplying, distribution, consumers, storage, etc.)”

Accelerating capital recovery:



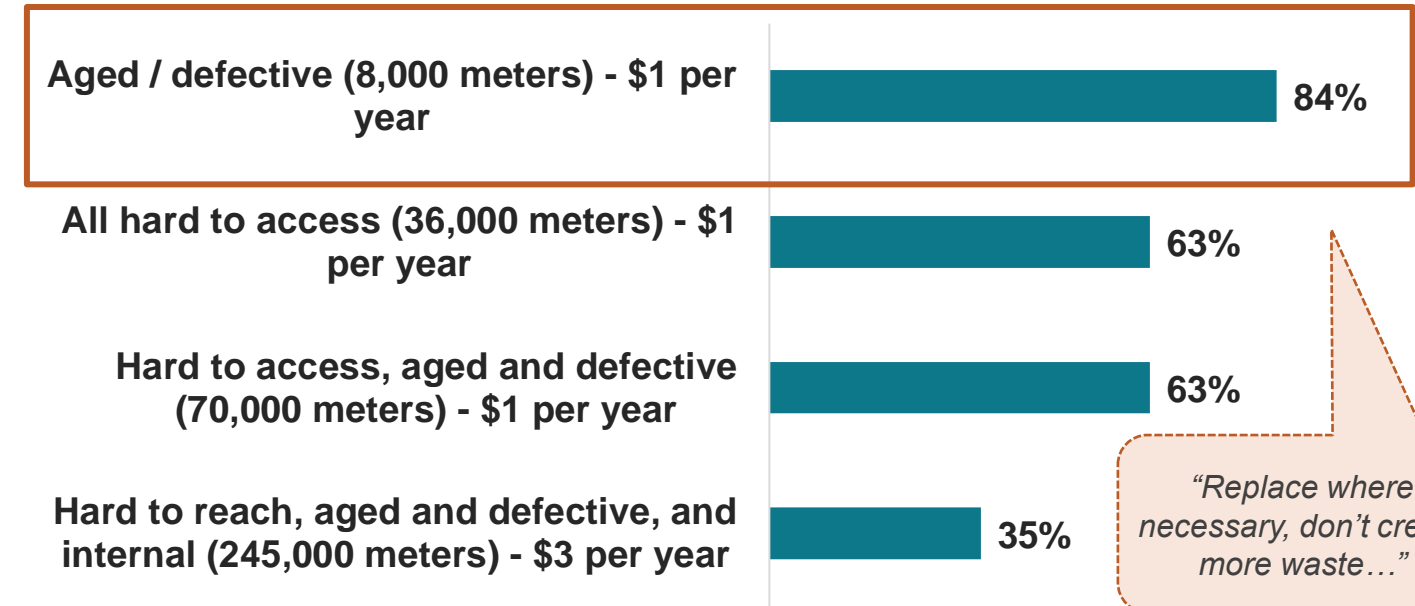
“There will be a short-term (five-year) financial hit due to accelerated asset recovery in order to reduce the rate of bill increase in the future (...) special care needs to be taken for those needing help with this increase...”

How Jemena manages its assets:



“Benchmark and develop consensus and industry standards for reliability and safety relating to gas networks...”

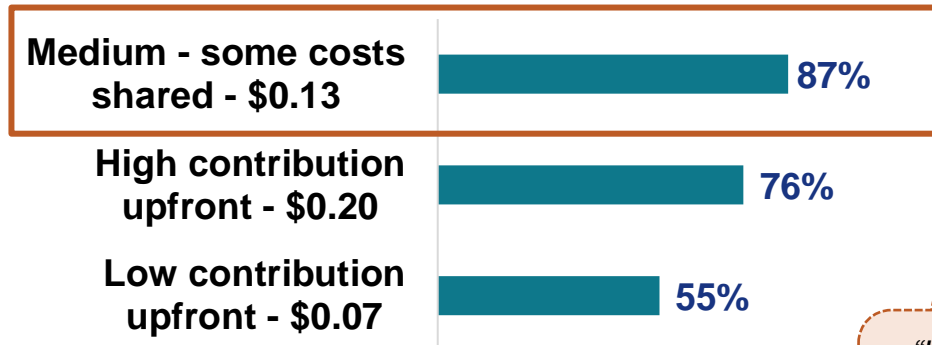
Digital metering:



“Replace where necessary, don’t create more waste...”

Where household customers landed (continued)

A new approach to residential connections:



"Subsidise connection costs for new customers to help increase new connections which in turn can help spread costs over a larger base and make it more affordable..."

"Keep it in the middle to encourage new customers to connect and keep existing customers..."

Supporting vulnerable customers:

Do more - 30c per year

92%

"We want Jemena to use their profits to help vulnerable customers and invest to make it fair for customers. At the same time support customers who are willing to share the costs in supporting vulnerable customers..."

Permanent disconnections:

Customer pays all the cost of permanently disconnecting from the network (current...)

84%

"Disconnecting customer should pay, not shared by others as connection cost was already passed to all."

"100% disconnection costs borne by the customer. If forced on customers e.g. ACT > then give subsidies."

"Customers should be responsible for their own decision."

"Disincentivise disconnection. More fair on remaining customers. Customers more likely to choose temp disconnection."

"It is not fair for the overall customer base to shoulder the cost of the luxury home renovation/rebuilding (main reason for permanent disconnection). For some small scale where people have abandon site, pass the cost to retailers who has 30% cost/role in the bill."

"There should be a penalty if you disconnect to avoid exacerbating a shrinking customer base."

"Choice is customers if renovating or knock down rebuild, they can afford it others shouldn't pay this cost when they re-connect. Subsidise the reconnect fee only."

support funding more fossil fuels so it would be good if more people left."

"Incentivise people leaving until biogas (sorry Jemena)"

Final check in

- Did you feel this was a good process? Was it authentic?
- What are your, if any, final thoughts?
- Would you be interested in coming back together with us again?

Thank you!



Would you be interested in coming back online in March 2024 to hear about the Draft 2025 Plan?

Would you be interested in coming back to **talk tariffs**?

CRNRSTONE research will be in touch with your stipends via email

