

Gas Transition in homes and small businesses



Purpose of this document

We are interested in exploring high-quality grant projects which address the knowledge and other gaps on this issue. As part of a series, this document aims to provide an overall picture of the issue and the potential areas where your organisation could build knowledge and capacity to support energy policy development or programs to benefit households and small businesses now and into the future.

This is an important issue for households and small businesses. There may be other opportunities and challenges that are relevant to households and small businesses in the transition from natural gas that we have not identified in this document. If you believe your organisation is well placed to address any of the knowledge and capacity gaps that are important to the community please contact Jawad Shamsi, Grants Manager (jawad.shamsi@energyconsumersaustralia.com.au) or Jacqueline Crawshaw, Director Policy, Energy Services and Markets (jacqueline.crawshaw@energyconsumersaustralia.com.au) to discuss further.

For more information about the Grants Program visit: www.energyconsumersaustralia.com.au/grants.

Summary

If Australia is to achieve its net zero emissions targets by 2050, households and small businesses will need to eliminate their use of fossil fuel gas for heating, hot water, and cooking. The alternative pathways to replacing natural gas are electrification or hydrogen, produced using renewable energy. For consumers, the pace of change and the ability to easily and affordably switch away from using natural gas matters. This will require consumers being well informed about the alternatives, before their appliances fail, and having the means to finance replacement appliances and the changes that will need to be made to wiring and plumbing. Industry and the supply chain will need to have the skills and capability to support the transition. Governments have an important role in ensuring that the transition is fair and that those with the least resources aren't left to bear the burden of the costs.

What is the problem that needs to be addressed?

All Australian governments have committed to a net zero target by 2050 or earlier. Natural gas used to heat and cook in homes and small businesses is a fossil fuel and contributes to Australia's emissions. This means part of realising a net zero emissions target will require that natural gas is phased out.

Some governments are already taking action towards this target (see section below) and action is likely to accelerate in the coming years.

For 2 in 3 Australians already using gas, via pipelines or bottled LPG, the gas transition will have direct impacts. Victoria has the highest percentage of homes connected to natural gas pipelines with 76% of homes compared to 10% in Queensland, meaning the transition will look different in each jurisdiction.

Space and water heating use the most gas. In Victoria, 74% of residential gas usage is space heating and 24% is water heating. Replacing these gas appliances with zero-emission alternatives will be a critical part of the journey to net-zero. However, these appliances come at a large upfront cost to consumers and according to the [Energy Consumer Sentiment Survey](#), only 9% of households are seriously considering running their home on electricity only, whereas 77% either had not thought about it or had decided not to. Small businesses will also be impacted by the transition, and many will need to upgrade their appliances and change business practices in the phase out of natural gas.

International conditions affect the price of natural gas sourced for use in our homes and businesses, and in recent times these prices have risen steeply. Consumers with solar systems already have an incentive to fully electrify their homes, and as retail gas prices rise it could encourage more consumers to consider replacing their appliances with electric alternatives such as heat pumps for heating and hot water, and induction for cooking. As more consumers choose to come off gas those who remain connected will have to pay for a larger proportion of the remaining gas pipelines network.

The alternative to electrification is the possibility of hydrogen powered appliances in homes and small businesses, though this is some way off as an available option.

Many consumers may not be aware of the alternatives or be able to afford to replace their natural gas appliances, and we need programs in place to address these needs if we are not to add to affordability pressures on households and small business. Similarly, any transition will require investment in the capability of appliance retailers and licenced trades to meet consumers' requirements.

Why is this a priority for Energy Consumers Australia?

We want to ensure the transition from natural gas takes place at lowest cost to consumers and policies and programs need to be tailored to be address the needs and values of individual households and small businesses. We believe it is critical to gain a clear understanding of the needs of different consumer segments, and what is action is required to support their decision-making and choices.

What work is currently underway?

GOVERNMENT ACTION

The ACT Government under its **Climate Change Strategy** has banned all new gas connections and the building of new gas connection pipelines to new suburbs by 2023.

The Victorian Government released their '**Gas Substitution Roadmap**' in July 2022. The roadmap outlines actions such as increasing energy efficiency, electrification, and introducing alternative gases in order to achieve a net-zero target by 2050.

In 2021 Energy Ministers started the process of considering any required changes to the National Gas Law, National Energy Retail Law, and subordinate instruments to include hydrogen blends, biomethane and other renewable gases.

Many states and territories are requiring low-emissions options for new or replacement hot water systems, for consumers that are connected to the mains gas supply.

MARKET BODY ACTION

In 2021 The Australian Energy Regulator released an **Information Paper** on 'Regulating Gas Pipelines Under Uncertainty.' This paper sets out the challenges associated with regulating gas pipelines during the transition away from gas and presents some preliminary options to manage demand uncertainty during the transition.

The Australian Energy Market Commission is currently reviewing extending the regulatory framework to include the use of hydrogen and renewable gasses, as sources of power supply.

In its **Gas Statement of Opportunities** (released in March 2022), the Australian Energy Market Operator anticipates that all gas connections – households and all businesses, large and small – could fall from 4.4 million in 2022 to 1.6 million in 2041 under the Step Change scenario. AEMO notes that it's still unclear if greater electric appliance use will result in physical disconnections from the gas network and whether new households will elect not to connect to gas.

COMMUNITY ACTION

In 2021 Moreland City Council in Melbourne under its **Net Zero Moreland** initiative organised focus groups to understand people's knowledge of residential gas use, attitudes towards climate change and the gas transition and the language and key messaging which would be most effective to communicate with consumers.

INDUSTRY ACTION

The businesses that own and operate the gas network have been active in identifying the pathways to decarbonisation. In October 2021, Australian Gas Networks, Ausnet Services and Multinet Gas Networks released their **Future of Gas** report that was undertaken with KPMG, to explore four scenarios to decarbonisation of the gas network.

Energy Networks Australia released its updated **Gas Vision 2050** in April 2022.

Given AEMO's outlook, there is likely to be a significant fall in the number of households that have both electricity and gas bills (currently **2.2 million households and 0.08 million small businesses**). The Australian Energy Council, which represents energy companies, released a discussion paper in April 2022 **Electrification & heat**. These companies are the point of contact for households and small businesses to disconnect from the gas network.

What actions have Energy Consumers Australia undertaken?

Energy Consumers Australia has engaged with gas network businesses on their future business models and made submissions to both the Victorian Government Department of Environment, Land, Water and Planning and ***Infrastructure Victoria*** on the ***'Gas Substitution Roadmap'***. Our annual ***Energy Consumer Sentiment Survey*** also tracks community awareness and behaviour around the transition from natural gas.

Gaps in work program and evidence-base – So what else could be addressed?

IMPACT ON CONSUMERS

There is not a clear, agreed strategy in any jurisdiction, or at inter-governmental level about legacy gas infrastructure and how costs will be managed.

There is no agreed national policy framework which plans for meeting the costs of new or replacement appliances and how we ensure equity in the transition and that no one is left behind.

There is no research or evidence base that looks at the implications of poorly insulated housing for future energy bills in the context of the gas transition.

INFORMATION AND ENGAGEMENT WITH CONSUMERS

While there is some evidence to suggest a low level of awareness about the phase out of gas, it is limited and there is an evidence gap on consumers' expectations and knowledge of the transition.

We are not aware of any studies which seek to understand consumer segments and their journey when transitioning off gas.

There is a need for more data about how small businesses are currently using gas and how the gas transition will be different (or similar) for them vs households. What are their unique needs?

There is a need to understand the unique needs of specific consumer groups such as small businesses and CALD communities – what are their barriers, motivations, and expectations regarding electrification.

There is no current research that looks at consumer segments that cannot transition away from natural gas (e.g., where it is critical for a small business' production).

INDUSTRY READINESS TO DELIVER FOR CONSUMERS

There is no analysis of what is needed by way of industry readiness and the risks for consumers, in such a significant change to the gas network.

We welcome your ideas on how to address knowledge and capability gaps on this issue.