

Release of Victoria's Gas Substitution Roadmap

Stakeholder Briefing



July 2022



Acknowledgement

We acknowledge and respect Victorian Traditional Owners as the original custodians of Victoria's land and waters, their unique ability to care for Country and deep spiritual connection to it. We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.

We are committed to genuinely partner, and meaningfully engage, with Victoria's Traditional Owners and Aboriginal communities to support the protection of Country, the maintenance of spiritual and cultural practices and their broader aspirations in the 21st century and beyond.



Agenda Item	Presenter	Timing
Welcome	Ralph Griffiths <i>Executive Director, Energy Strategy</i>	11.30 – 11.35
Ministerial address	Hon. Lily D’Ambrosio MP <i>Minister for Energy</i>	11.35 – 11.40
Gas Substitution Roadmap briefing	Felicity Sands <i>Manager, Gas Reform</i>	11.40 - 12.15
Question and answer session	All	12.15 – 12.30
Next steps		12.30

Gas has been an important energy source for Victorians for many years



Victoria has the highest gas use in Australia

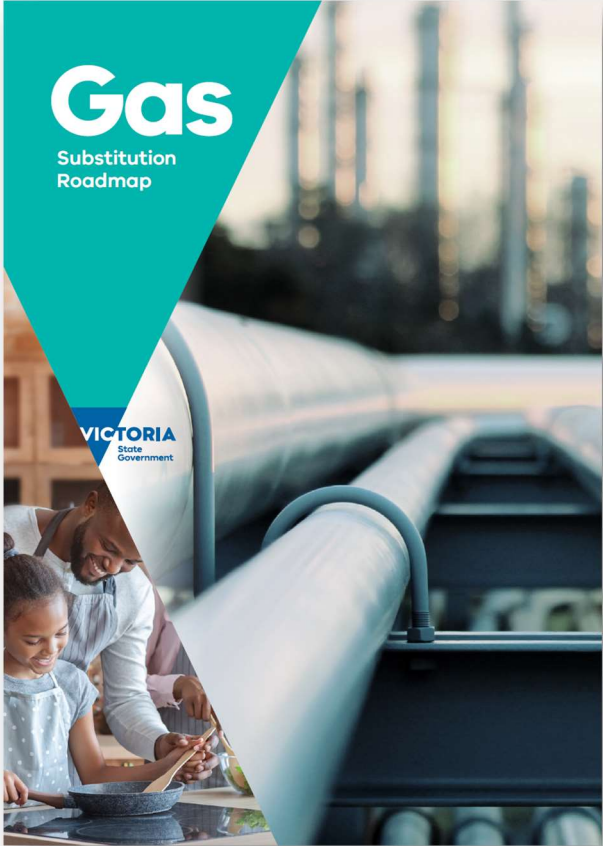
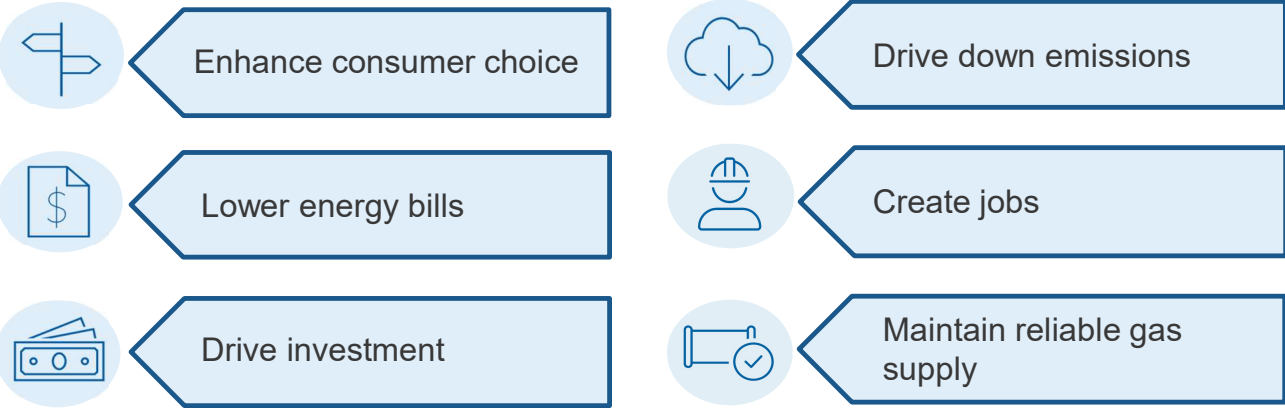
- 80% of households connected to gas
- Used in all sectors of the Victorian economy – manufacturing, construction, agriculture, chemicals

In the past, gas was considered a cheaper and lower emissions fuel. However, rising gas prices and the transition of the electricity grid to renewables mean this is no longer the case.

What is the Gas Substitution Roadmap?

The Victorian Government's strategic plan to decarbonise the gas sector

This Roadmap is the start of a journey to a net zero emission future for the gas sector



Gas Substitution Roadmap – key findings

Informed by extensive stakeholder engagement, sophisticated modelling and in-depth analysis, the roadmap's key findings:



Emissions from Victoria's gas sector may remain unchanged or even increase without immediate policy action



A **combination of technologies** - energy efficiency, electrification, hydrogen and biomethane - will provide the best pathway to decarbonise the gas sector



Electrification and energy efficiency will play a dominant role in reducing gas use this decade, and cutting emissions and household energy bills immediately



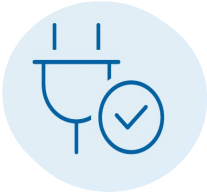
Alternative gases (e.g. hydrogen and biomethane) will be essential to reach net zero emissions – and action is needed now to develop them

- Particularly important for some industrials, with activities that are harder to electrify



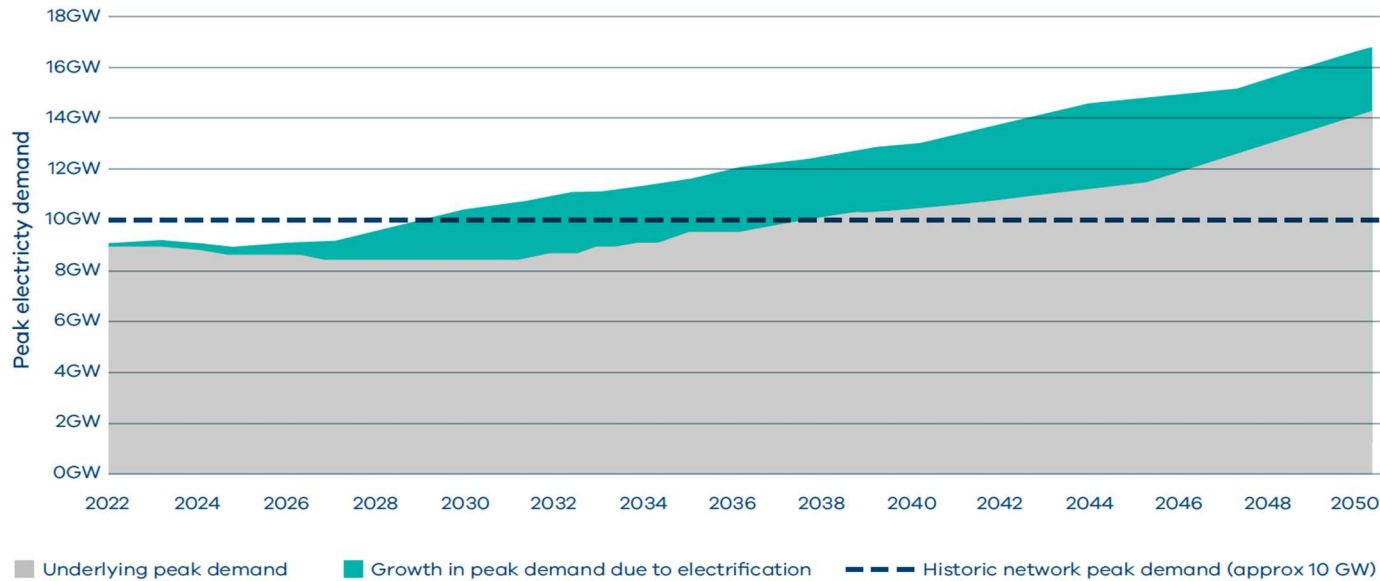
Switching from gas to efficient electric appliances drives down emissions – including in the near term

Key findings continued



Victoria's electricity grid has significant 'headroom' in winter for electrification of gas load – so we have time to prepare and plan

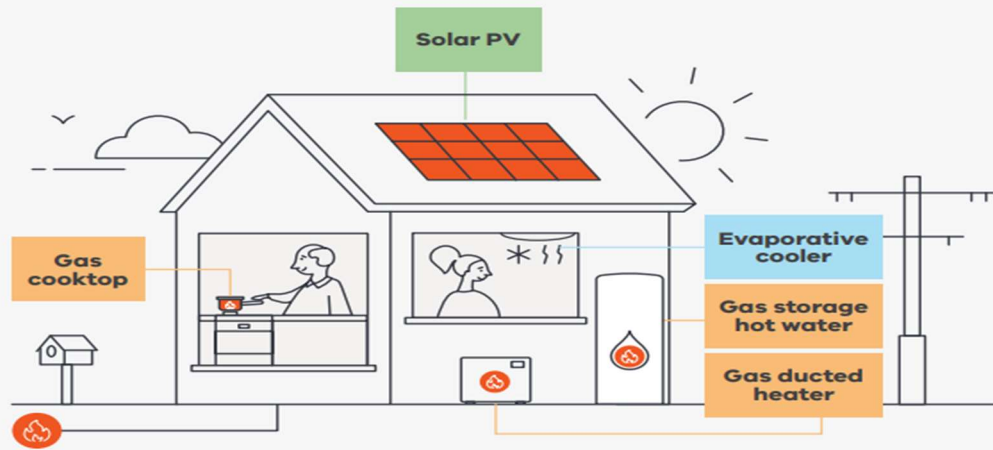
Projected growth in peak electricity demand



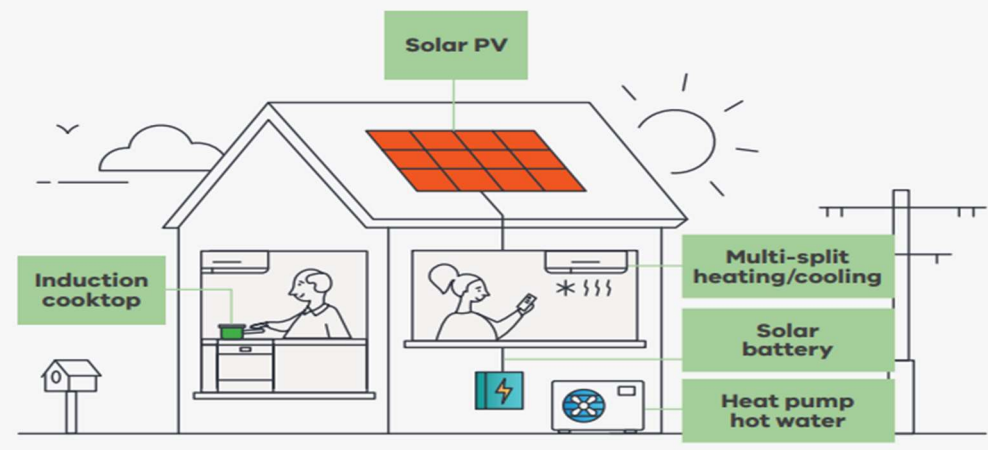
Gas Substitution Roadmap - key findings continued

Key findings continued: How much can an existing household save?

Dual-fuel:



All-electric:



Appliance and install costs*	
Cooling	\$12.4k
Heating	
Hot water	\$2.4k
Cooktop (inc. fixed charge)	\$1.2k
Solar	Existing
Total	\$16k

Bill costs	
Electricity bill (Note: Existing solar saving \$950)	\$580
Gas bill	\$1,780
Annual energy bill	\$2,360

*Does not include site-specific upgrade costs (eg. switchboard upgrade)

Appliance and install costs*		Costs after Solar Homes rebate	Bill savings**	
Cooling & Heating	\$9.5k (incl. new \$26k VEU incentive)		Heating/Cooling	\$570 saving
Hot water	\$4.2k (incl. new \$300 VEU incentive)	\$3.2k (incl. \$1k solar hot water rebate)	Hot water	\$180 saving
Cooktop (inc. fixed charge)	\$1.8k		Additional solar savings	\$230 saving
Solar	Existing		Cooktop (inc. fixed charge)	\$270 saving
Total (appliances)	\$15.5k	\$14.5k	Total savings	\$1,250 saving
Battery	\$13.8k	\$10.3k (incl. \$3.5k solar battery rebate)	Annual energy bill	\$1,110
			Battery	\$520 saving
			Annual energy bill (with battery)	\$590

*Does not include site-specific upgrade costs (eg. switchboard upgrade)
**Average annual savings, 2022 dollars

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Gas Substitution Roadmap - key findings continued

Key findings continued: How much can a new home save?

Dual-fuel:



Appliance and install costs*

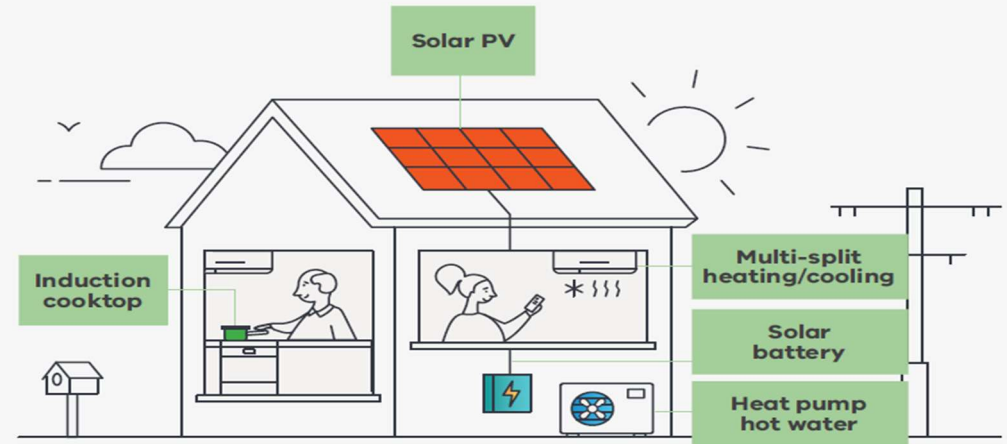
Cooling	\$12.4k
Heating	
Hot water	\$2.4k
Cooktop (inc. fixed charge)	\$1.2k
Total	\$16k

Bill costs

Electricity bill	\$1,410
Gas bill	\$1,250
Annual energy bill	\$2,660

*Includes purchase and installation cost, does not include pipework costs

All-electric:



Appliance and install costs*

Cooling	\$12.1k
Heating	
Hot water	\$4.5k
Cooktop (inc. fixed charge)	\$1.8k
Total (appliances)	\$18.4k
Solar	\$5k
Battery	\$13.8k

Bill savings**

Heating/Cooling	\$350 saving
Hot water	\$120 saving
Cooktop (inc. fixed charge)	\$270 saving
Total savings	\$740 saving
Annual energy bill	\$1,920
Solar	\$1,070 saving
Annual energy bill (with solar)	\$850
Battery	\$440 saving
Annual energy bill (with solar and battery)	\$410

*Includes purchase and installation cost
**Average annual savings, 2022 dollars

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Roadmap actions



Protecting Victorians against high prices



Promote consumer choice, cut energy bills and improve energy efficiency of homes and businesses



Unlocking alternative gases and establishing a hydrogen industry



Maintaining gas reliability throughout the transition



Preparing the future workforce



Transitioning Government's own gas use

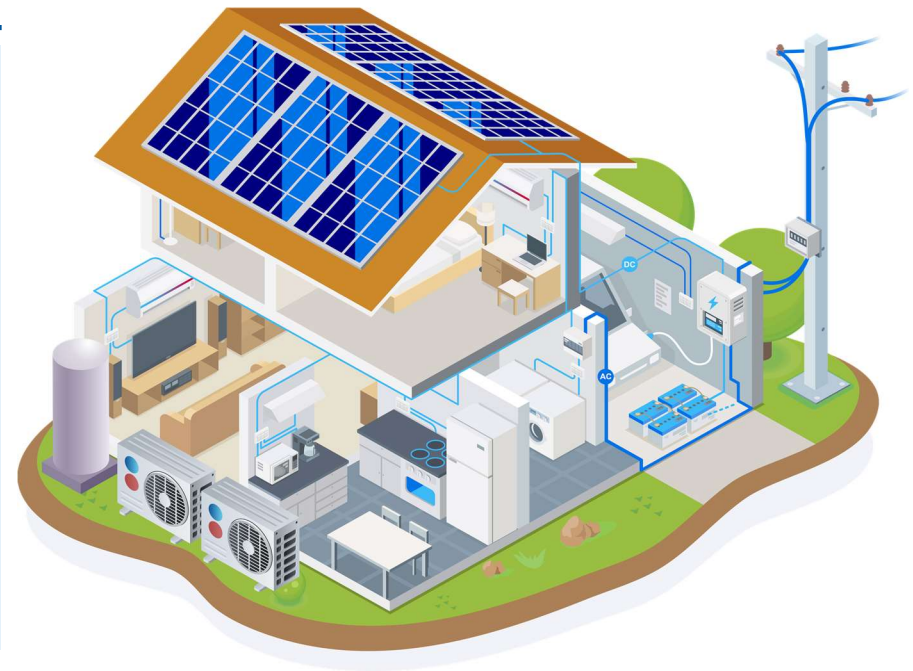
Government has a range of supports in place to assist Victorian households and businesses manager higher energy costs:

- The **\$250 Power Saving Bonus** which will help ease the cost of living for Victorian households
- The **Energy concessions program** provides 17.5% discount off gas and electricity bills for eligible concession card holders.
- The **utility relief grant scheme** which provides up to \$650 per utility every two-years to low-income Victorians experiencing unexpected hardship
- The comprehensive **Payment Difficulty framework** under which retailers must offer tailored assistance to residential customers with arrears.
- Small businesses as well as households can use **Victorian Energy Compare** to compare their offer to others in the market and ensure they are on the lowest-price offer available

Gas Substitution Roadmap – the priorities and actions

Government actions to enhance consumer choice, lower energy bills and decarbonise the gas sector:

- Increasing the incentives for electrification through our **Victorian Energy Upgrades** (VEU) program and removing incentives for domestic gas.
- Removing the requirement for new developments to be connected to gas in 2022 – **unlocking all-electric developments**
- Aligning the Plumbing Regulations with the changes being pursued through the National Construction Code 2022.





Unlocking alternative gases such as hydrogen and biomethane will create new jobs and opportunities and help the gas sector reach net zero emissions

- \$10 million for the Hume Hydrogen Highway - a highway transport backbone between Melbourne and Sydney
- \$35 million support for the education sector to build the required skills and practices to grow the hydrogen sector
- Exploring cost recovery options to drive the uptake of renewable gas





The Government is taking steps to enhance gas reliability and security in this unprecedented market environment

- Supporting measures to enhance gas storage - maximising Dandenong LNG facility use through a Victorian-led Rule Change request
- Ensuring gas infrastructure proponents undertake timely investment to support secure and reliable supply
- Ensuring regulatory reform provides an appropriate balance between reliability and affordability
- Improve regulatory coverage of emerging gas production assets e.g. distribution connected hydrogen or biomethane facilities





The Government is helping to prepare the workforce for the clean energy future

- Supporting upskilling of gas plumbers and electricians in HVAC, energy efficiency and renewable gas technologies through Solar Victoria
- Nationally consistent training materials for hydrogen
- Investing \$10 million to develop the skills needed in a clean economy





Transitioning Government's own gas use

- Businesses cases for buildings and facilities to consider all-electric options
- Funding for Victoria's first all-electric hospital
- Victorian School Building Authority intention to phase-out natural gas to school sites

Melton Hospital - Victoria's first all-electric hospital



Roadmap actions

Together, these programs and policy reforms are expected to deliver major benefits to Victoria:

- Help Victorian households save on their energy bills by taking up rebates to switch to electrical appliances – with a focus on vulnerable Victorians
- Free up a diminishing resource for industries and processes that rely on gas, and improve energy security and reliability
- Support over 2,200 jobs and industry development, while reskilling and preparing the Victorian workforce to take up these sustainable employment opportunities
- Attract hundreds of millions of dollars of private investment to Victoria, including regional areas, and establish a thriving new hydrogen economy

Your questions

1. Type your question in the chat at any time
2. Like or react to show your interest in a question
3. Questions will be answered in order of interest (i.e. most "liked" questions)



The Roadmap is just the start of the conversation....

Thank you to all who supported the development of the Roadmap and for your valuable contribution to this important work

We will continue to engage with you to develop and put in place actions to support the transition and will contact you later in 2022

A Roadmap update will be released in 2023