

FACT SHEET:

Cleaner, Reliable, Australian Energy for Families



Australian gas fuels - Liquefied Petroleum Gas (LPG), Liquefied Natural Gas (LNG) and Compressed Natural Gas (CNG) - have an important role as a reliable component in a lower carbon energy setting.

They are also cleaner, Australian, support thousands of local jobs and are a more readily available source of energy than conventional fuels.

DIRECT USE OF GAS IN OUR HOMES

Whether it's for hot water, domestic heating, or gas-fired cooking, gas plays a central role in the lives of over 6.5 million Australian households:

- *Today, gas delivers 44% of Australia's household energy but only 13% of household greenhouse gas emissions.*
- *In the home, direct use of gas will continue to offer lower emissions compared to electricity from the grid. Compared to electric resistance hot water systems, gas provides a cheaper option for hot water services within the home.*
- *Almost 70 per cent of homes use gas through mains (natural gas) and bottled (mostly LPG): that's 6.5 million homes and growing.*

GAS CAN BE USED FOR COOKING, HOME HEATING AND HOT WATER SYSTEMS

When used for cooking, gas spreads the heat more evenly across the base of cooking implements and doesn't take time to heat up like electric stoves – so it will save you time and money in the kitchen.

Unlike other countries, Australia doesn't have long winters, so there is less need for expensive central heating.

Gas autonomous heaters provide instant heat and increased energy efficiency, by allowing a lower overall temperature setting throughout the home or the indoor space. And because they don't rely on power from the electricity grid, they are also more dependable during natural disasters and power outages.

ABOUT GAS FUELS

Australian gas fuels - Liquefied Petroleum Gas (LPG), Liquefied Natural Gas (LNG) and Compressed Natural Gas (CNG) address the triple drivers of reliability, cost and the environment - while securing local jobs and reducing Australia's reliance on foreign oil imports.

It is therefore critical to take the necessary steps to ensure that these fuels become a bigger part of Australia's energy mix - which will help create even more Australian jobs.



Australian gas can also power air conditioning units, is perfect for patio heaters and barbecues, can fuel backup generators when homes are affected by storms and can even be used for mosquito and bug killers.

Few Australians know that using an LPG hot water system can be cheaper and better for the environment than current conventional electric and even solar electric hot water systems.

For example, solar electric hybrid hot water systems are only 68% cleaner than electric water heaters- whereas LPG gas hot water systems are up to 73% cleaner and produce almost 15% or 2.5 tonnes less CO2 emissions.

REGIONAL AND REMOTE COMMUNITIES

Gas-sourced distributed energy is decentralised, modular and located close to the energy need it meets - providing greater reliability and increasing energy security. Therefore, it can provide reliable energy security to localised grids, offshore islands, off grid/remote energy users and assist communities at the very ends of old unreliable networks.

Not only are gas fuels cleaner than traditional fuels, especially when used in conjunction with renewables, but they also offer reliable power to the roughly 400,000 Australian households and businesses not connected to the electricity grid that often rely on higher polluting, imported and often unreliable power sources such as diesel.

No other commercial fuel has flexibility for transportation, and the capability for being one of the lowest infrastructure cost options for energy, compared to electricity.



LIZ HAYWARD, TAMWORTH



After much consideration, Liz replaced her old electric hot water system with an LPG hot water system, because of its efficiency and because it is a better option for the environment.

The installation of an LPG hot water system saw Liz's three-person household electricity bills reduce from an average usage of 1650kWh per quarter at a cost of \$340.00 to 660kWh at a cost of \$190.00 per quarter excluding service charges.

"I love the LPG hot water system and I would recommend it to anyone who was needing to buy a new hot water system to replace an electric one. Not just for the environment but also the amount of money you save and less electricity you use."

A FLEXIBLE AND RAPID-RESPONSE ENERGY SOURCE DURING NATURAL DISASTERS

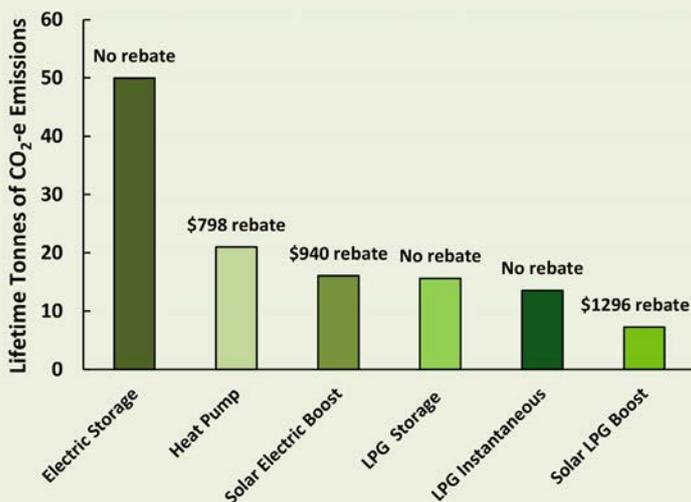
Natural disasters - fires, floods, cyclones and storms - are an all too familiar event across Australia. Large-scale energy infrastructure is prone to disruption during the course of these events. The time taken to repair this infrastructure, and restore access for households can be substantial, and can involve significant economic loss.

LPG - with its portability and mobile infrastructure - has the capacity to play a significant role in improving the energy resilience of households across Australia. By diversifying energy use in the home, people can build a degree of self-sufficiency in regard to sourcing energy needs – both during and following natural disasters.

GOVERNMENTS NEED TO GIVE GAS FUELS A FAIR GO

Unlike renewable energy technologies, there are currently no government rebates or energy concessions available to support the residential use of gas fuels.

This is despite gas fuels being cleaner, reliable, Australian, providing greater energy security and saving Australian households hundreds of dollars on their power bills.



Source: Pitt and Sherry, Greenhouse gas emissions performance of various types of residential water heaters, and emission abatement opportunities, 2015.

EVERYDAY PRACTICAL APPLICATION OF GAS

Many of the household items you use every day are made by manufacturers who use gas to produce their products - like Nestle's coffee factory in Gympie (Queensland) that produces around half the coffee Australian families consume each year.

Some families might also see CNG-fueled buses in their local communities that are cleaner and lower polluting than diesel buses - and they're cheaper to run.

For businesses, LPG can provide a cleaner and affordable source of energy for water heating, lighting, power generators, cooking, patio heaters and grills, laundry appliances, air-conditioning, factory machinery, commercial drying and pharmaceutical production.

Many farmers also use LPG as a clean, green, versatile energy source for a broad range of farming applications like crop-drying, poultry breeding and greenhouse/animal shed heating.

DID YOU KNOW...

- ✓ GEA Members have almost \$4.3 billion invested in LPG facilities, trucks and cylinders.
- ✓ Gas delivers 44% of Australia's household energy - but only 13% of household greenhouse gas emissions.
- ✓ Australia's gas infrastructure can store the same amount of energy as 6 billion Powerwall batteries.
- ✓ Half of the gas used in Australia is for mining and manufacturing – contributing \$196 billion to the national economy and employing over 949,000 Australians.
- ✓ Replacing 10% of diesel used on heavy on-road transport with gas fuels could reduce imported diesel by 1,018 million litres per annum - reducing CO₂ emissions by up to 597,000 tonnes.
- ✓ LPG, LNG and CNG fuels can reduce carbon emissions by up to 25% and virtually eliminates particulates along with NO_x and SO₂.