

FACT SHEET: Liquefied Petroleum Gas (LPG)



Often taken for granted, Liquefied Petroleum Gas (LPG) can contribute to Australia's future energy needs as a cleaner, cheaper and more readily available source of energy than conventional fuels.

Contributing \$3.5 billion to the national economy, Australian LPG supports 2,500 direct jobs, and has over 1,000 uses. These uses include fuel for water and home heating, cooking, lighting, machinery, power generation, automotive fuel and for manufacturing and construction.

LPG has been used in Australia for many decades and most people are aware of it as a barbeque and automotive fuel. Less well known is that LPG can be readily used as a low emission fuel for a range of other stationary energy and industrial uses. Consequently, it often gets forgotten or overlooked, including by policy makers who often make rules that support less clean alternatives or technologies that are not always right for the job.

More information about what LPG actually is can be found overleaf.

CLEANER, CHEAPER ENERGY FOR HOMES

Most commonly known for its use in water heating and household cooking, using LPG in Australian homes can save money, and is a convenient and immediately accessible energy source.



LPG is a lower carbon alternative to other fossil fuels, like coal-fired electricity and imported diesel. Using LPG in the home, instead of electricity, for water heating, cooking or home heating, can reduce greenhouse gas emissions by up to 70%.

CLEANER, CHEAPER ENERGY FOR INDUSTRY AND BUSINESS

Flexible, reliable and cost-effective energy is important to ensure Australian businesses are profitable and sustainable.

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.

Gas is currently the largest source of energy in the manufacturing and construction sector because it is clean, affordable and easily accessible.

CLEANER, CHEAPER ENERGY FOR AGRICULTURE AND MINING

As the community, and in turn farmers, demand more environmentally friendly production methods, LPG is a great choice for Australia's farming industry.

ABOUT GASEOUS FUELS

Australian gaseous fuels - Liquefied Petroleum Gas (LPG), Liquefied Natural Gas (LNG) and Compressed Natural Gas (CNG) - are Australia's natural advantage. They are cleaner and cheaper, supporting cleaner air and deliver more control over Australia's energy security and economic future.

Gaseous fuels are lower emitting, lower polluting Australian made fuels - that secure local jobs and reduce Australia's reliance on foreign oil imports.



It enables farmers to farm efficiently, using LPG as a clean, green, versatile energy source for a broad range of farming applications.

Practical applications for LPG in agriculture include its role in crop-drying, poultry breeding, irrigation, thermal desiccation, incineration, insect repelling, greenhouse and animal shed heating and water heating.

RELIABLE ENERGY FOR REMOTE AND EMERGENCY POWER

There are over 400,000 Australians in remote and regional communities, and thousands of industry and business sites that require off-grid electricity.

With a wide variety of packaging and storage options, and transportation in low-pressure tanks, LPG is available across Australia – including through 'virtual pipelines' to support communities not serviced by natural gas grids.

And as one of the cleanest conventional fuels available, LPG is an ideal choice to facilitate the generation of off-grid electricity.

WHAT IS LPG?

LPG is a generic term used to describe both propane and butane and is a naturally occurring high value bi-product of natural gas and oil extraction, from Australia's wet gas fields.

DID YOU KNOW...

- ✓ LPG responds to the indoor stationary energy demands of more than 5 million users, servicing more than 670,000 regional and remote and 265,000 capital city customers.
- ✓ There are over 400,000 Australians and thousands of businesses in regional Australia that are not on the electricity grid – many of which run on dirtier, more expensive diesel generation.
- ✓ Just converting existing Queensland homes from electric hot water to gas hot water would save up to 246,000 tonnes of CO₂ per annum.
- ✓ \$4 billion has already been invested in stationary energy LPG infrastructure networks such as ports, refueling facilities, tanks, storage facilities and pipelines.
- ✓ The LPG industry contributes more than \$3.5 billion a year to the national economy.
- ✓ Australia exported \$800 million worth of LPG in 2014-2015 and 4.5 million tonnes of LPG will be produced in Australia per annum by 2020.
- ✓ Australian stationary energy LPG supports 154,000 Australian businesses.



Over 80% of Australia's LPG production comes from this source. LPG is also produced by refineries in the production of petrol and diesel.

The extraction of LPG from our gas and oil fields provides significant added value for producers for their export and domestic market.

LPG is a low carbon energy-rich fuel, having a high calorific value, which provides high efficiency benefits for heating and cooking.

LPG is colourless and odourless, and has a unique capability to be easily transformed from gas to liquid with minimal pressure. One litre of liquid LPG equals 270 litres of gas, making LPG more economical to be stored or transported as a liquid than as a gas.

This versatility and flexibility provides the perfect solution to meet our off-shore, remote and regional energy needs.

Propane is used predominantly for domestic heating and cooking applications, while butane is mainly used in special commercial applications.

A mix of both has been and continues to be used as a transport fuel for light vehicles in Australian cities while country areas use just propane. LPG is now being used as a fuel for light vehicles with hybrid electric engines and a trial is currently underway to use it as a dual fuel for diesel powered heavy trucks.

ACCESSIBLE AND SECURITY OF SUPPLY

Australia has vast reserves of LPG, with around 80% of LPG produced in Australia coming from offshore and onshore oil and gas fields. And because most Australian LPG is sourced from natural gas processing, refinery closures will have little impact on the security of domestic supply.

With production levels well in excess of current market demand, LPG is exported, earning revenue and contributing even further to our local economy.

We have almost 80 years supply of LPG, and that's just the sources we know about so far.

As Australia produces more LPG than it consumes, the LPG supply chain is not dependent on international supply chains, so security of supply is more secure.