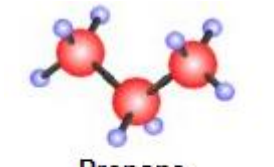
LPG Facts

What is LPG?

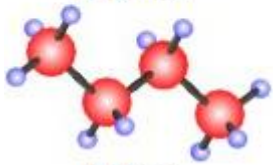
The term LPG (Liquid or Liquefied Petroleum Gas) actually encompasses more than one variety of gaseous fuel and is the generic name for mixtures of hydrocarbons (in NZ - mainly 60% propane and 40% butane). There are a number of hydrocarbon gases that fall into the classification of "LPG". Their common distinguishing characteristic is that they can be compressed into liquid at relatively low pressures (approx. 800 kPa or 120 psi).

LPG is stored under pressure, as a liquid, in a gas bottle. It turns back into gas vapour when you release some of the pressure in the gas bottle by turning on your appliance. Almost all of the uses for LPG involve the use of the gas vapour, not the liquefied gas. In its original form LPG is colourless, odourless and heavier than air. A chemical odorant called ethanethiol is added to give it a smell like rotten cabbage so that even a very small leak can be detected easily.

The gases that fall under the "LPG" label, including Propane, Butane, Propylene, Butadiene, Butylene and Isobutylene, as well as mixtures of these gases. The two most common are Propane and Butane.



Propane



Butane

LPG is relatively easy to transport and store as a liquid, in which it is roughly 250 times as dense as when it is a gas. This means a lot of energy can be stored in a relatively small volume.

LPG is primarily used for heating, water heating and cooking, in homes and businesses. Its use in these applications now displaces approximately 1,945GWh of electricity generation pa, which makes it an increasingly valuable energy asset. LPG is used as a 'process fuel' in industrial applications where it displaces less environmentally-friendly fuels like coal and fuel oil, and as a cleaner-burning vehicle fuel. It also powers the traditional barbecue and provides a heating and cooking source in boats and caravans.

Where does our LPG come from?

LPG is a by-product of refining petroleum or "wet" natural gas, and is almost entirely derived from fossil fuel sources, being manufactured during the refining of petroleum (crude oil), or extracted from petroleum or natural gas streams as they emerge from the ground. It was first produced in 1910 in the USA.

In NZ LPG comes from on and off-shore gas fields in Taranaki. Maui used to be the biggest domestic producer, but this field has now been superseded by Kupe. Other current LPG fields are Kapuni, Waihapa, Pohokura and Rimu.

Unlike natural gas, LPG is available and used widely in both the North and South Island. In fact, we use almost 180,000 tonnes of it a year and demand is growing at over 7% annually.