FACT SHEET:

Cleaner, Reliable, Australian Energy for Industry and Business

Gas Energy Australia

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.

CLEANER, RELIABLE AND READILY AVAILABLE ENERGY FOR AUSTRALIAN INDUSTRY AND BUSINESS

Flexible, reliable and cost-effective energy is important to ensure Australian businesses are profitable and sustainable. By using gas fuels, industry and business can reduce carbon emissions by up to 25% compared to other fuels - while also reducing other pollutants like NOX and SO2 to almost zero.

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

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

GAS FUELS POWERING OUR TRANSPORT SECTOR ACROSS AUSTRALIA

Australia has a particular need for heavier, larger long-haul trucks and we have a disproportionately high rate of heavy vehicles overall – 20% of the world's long-haul trucks. Transport currently accounts for 38.2% of Australia's overall energy demand and our freight task is set to double by 2030.

Few Australians know that gas is the only viable alternative to diesel for long-haul trucking with our trucking industry being an important part of the Australian economy. In 2017, it was worth almost $40 billion to our economy and paid $8.2 billion in wages to Australians.

Working closely with the National Heavy Vehicle Regulator, Unigas and its partners have been working on an LPG dual fuel heavy truck trial - and are now discussing steps for developing an Australian compliance model that will allow the industry to adopt a solution that involves installing an engine system that runs on both diesel and LPG.

The system has the advantage of maintaining engine power and torque, and remaining within the engine's designed operating performance. Trial results consistently showed 18 to 20 percent energy equivalent savings, a 60 per cent reduction in particulate matter and a 2 per cent CO2 reduction.

While still in the early stages, results show this technology has the potential to help the Australian heavy vehicle industry reduce emissions and operational costs, without compromising safety.

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.

GAS SHOULD BE THE FUEL OF CHOICE FOR SMALL BUSINESS

Gas should be the fuel of choice for restaurants, cafés and pub owners, because it is perfect for the Australian lifestyle and is a jack-of-all-trades in the commercial sector.

Gas tumble driers dry clothes in around 50% less time, producing around half the greenhouse emissions of electric dryers, whilst costing almost 50% less to run. The quality of the dryness and softness of the dried clothes processed by gas-fueled dryers, is also far superior.

It is also not commonly known that gas fuels are already widely used in renovation activities, such as paint removal, lighting, soldering, welding, drilling and concrete treatment. Gas is also used as a feedstock in chemical production.

Gas-fueled forklift trucks (CNG & LPG) present an excellent alternative to both diesel and electric counterbalance forklifts, for a wide range of materials handling applications. They are cheaper to run and produce less emissions – so are better for enclosed spaces.

CASE STUDY

CRITICAL GAS SUPPLIES DELIVERED TO WHYALLA HOSPITAL

Natural gas is easy to transport, in either a compressed or liquid form and is able to be converted back into a gas form for injection directly into gas pipelines and networks.

A pipeline rupture in 2015 in Whyalla, South Australia, meant that parts of Whyalla including the hospital, risked being without gas while repairs were made.

As a company with an existing domestic LNG network, BOC was able to send an expert technician and innovative tanker to South Australia to convert the LNG back to natural gas for injection into the Whyalla pipeline network and restore critical gas supply to the hospital.

GAS-POWERED TECHNOLOGY FOR SHIPS AND FERRIES

Shipping carries 99% of Australia's trade by volume and Australia's shipping makes up 10% of the entire world's seaborne trade. Australia also has a significant ship-building industry, particularly in South Australia, Victoria and NSW.

Ships move nearly a billion tonnes of iron ore, coal, wheat and other goods in and out of Australia's ports each year and shipping growth is anticipated to be around 80% over the next decade.

Diesel-powered ships and ferries cruise over our Great Barrier Reef, around our harbours and up and down our coastline. Powering them by cleaner, cheaper, safer natural gas would greatly reduce the risk of fuel spills and pollution. That's because gas fuels vaporize or dissipate into the air instantaneously and is a Great Barrier Reef and water friendly fuel.

That is why EVOL LNG is already supplying cleaner shipping fuel for marine vessels, with the first commercial bunkering operation undertaken in Western Australia.

Australia has also played a positive role in contributing to the growth of natural gas ferries, with the first such vessel built by INCAT in Tasmania. However, it was not bought here in Australia but in South America. The Argentinians are enjoying the benefits of an Australian company's technology – yet to date, there has been surprisingly little action from Australia's state-owned ferries to upgrade to Australia's cleaner, reliable and Australian fuel source.

Australia is leading the world in design and technological know-how for gas-fueled ferries and INCAT is yet another example of where combining that entrepreneurial spirit with the natural advantage of Australian natural gas fuels is compelling.