



**Gas Appliance  
Manufacturers  
Association of  
Australia**

## **GAMAA CHRISTMAS LUNCH**

**Date: Friday 29 November 2019**

Venue: Sandringham Yacht Club (SYC) - Jetty Road Sandringham

- 12noon to 4pm - Christmas Lunch - Olympic Room
- Registrations will close Friday 22 November at 12 noon.
- Free parking

**Register through Eventbrite [here](#) using the password [GAMAA2019](#)**

If you have any questions or have issues registering please contact [jon.onley@aigroup.com.au](mailto:jon.onley@aigroup.com.au)

## **GAMAA Technical Committee Meeting**

**Date: Friday 29 November 2019**

This meeting will precede the Christmas lunch.

- 9.30am - 12 noon SYC Training Room
- An Agenda will be sent prior to the meeting to those who register

If you haven't received a calendar invite for this meeting and would like to attend please email [Jon.onley@aigroup.com.au](mailto:Jon.onley@aigroup.com.au)

## **Decarbonising: don't throw the baby out with the bathwater**

ENA November 2019

A recent study by Frontier Economics highlights four reasons why gas infrastructure will continue to have a strong future in supplying energy in a decarbonising world.

While the global focus of decarbonisation is on renewable electricity, there is growing recognition that more than just electricity will be needed to decarbonise the mobility and heat sectors, meaning a systems approach will be required. As part of this systems approach, gas infrastructure will continue to play a major role in supplying energy.

The study focusses on the role and potential of gas infrastructure in a climate-neutral Europe. The study considers three scenarios to achieve the 2050 emissions reduction targets:

- All-electric – this scenario assumes all the heat load and mobility is electrified using renewable electricity only.
- All-electric plus gas storage – this scenario assumes all the heat load and mobility is electrified but that gas (hydrogen or biogas) will be used in electricity generation.
- Electricity and gas infrastructure – this scenario assumes that both the electricity and gas grids will continue to provide services to homes, businesses and mobility and that all the gas used will be renewable.

Read the full report [here](#)

## **Hydrogen: A small step for man or a huge leap for mankind?**

ENA – Dr. Dennis Van Puyvelde

To most of us, the first moon landing in 1969 was a long time ago. Indeed, it was 50 years ago this weekend. However, the moon landing didn't happen overnight. It started in the early 1960's with President Kennedy proposing that the United States:

*"should commit itself to achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to the Earth."*

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**GAS**  
**Connections**

This challenge started a decade of innovation and investment involving hundreds of thousands of people. The innovation developed for the Moon mission has led to many things we take for granted in our modern lifestyles. For example, computing and telecommunications would not be as advanced without the program. Even more mundane things such as water filters, scratch resistant lenses and memory foam trace back to the inventions from the Moon program. Many of these technologies have become mainstream.

There is a link between hydrogen and the Moon missions. The Apollo missions used a fuel cell, which combined hydrogen and oxygen to generate electrical power and water for the spacecraft. The water was used by the astronauts for drinking. The Apollo Service Modules carried three such fuel cells. Fifty years on and the global momentum in using fuel cells for mobility is on the edge of becoming a commercial reality. I'm sure many of us have witnessed fuel cell enthusiasts drink water from fuel cell vehicle exhausts.

### **50 years of gas**

Interestingly, it was around the same time as the Moon landing that natural gas became prominent. Back in the late 1960s the main form of gas used was 'Towns' gas, which was produced from coal and comprised about 50 per cent hydrogen, 25 per cent methane and a 25 per cent mix of gases including carbon dioxide and carbon monoxide. Pretty nasty stuff. The discoveries of gas in the late 1960s and early 1970s led to the conversion to natural gas.

While the Moon Mission had a clear presidential edict, the conversion to natural gas seems to have come about due to a range of factors including:

- The availability of natural gas as a byproduct from oil production,
- The cleanliness of natural gas compared to the Towns gas process; and
- The oil shocks of the 1970s.

Nevertheless, these conversions were nation building projects with proposals such as the "Energy Highway across Australia" proposed in 1972, supported by appliance conversions programs across the country. Many more pipelines have been built since that time, but the link between east and west coasts has not been made.

Brisbane, Adelaide and Melbourne were the first cities to be connected to natural gas. The first fields to provide gas to Victoria were the Barracouta and Marlin fields in the offshore Gippsland basin and these are still producing gas today. The fifty years of development in these gas fields has seen huge advances in technology, for example seismic modelling and improved extraction technologies that allow more of the gas to be recovered. Undoubtedly, these technologies benefited from the Moon missions.

Gas production has grown steadily since the late 1960s in Australia. This growth in production led to a growth in domestic consumption of gas. LNG exports started on the west coast in the late 1980s and on the east coast in 2014/15 from coal seam gas developments after a domestic market was well established.

Read the full report [here](#)

### **Ai Group Leading the Australian Performance Indices**

Each month Ai Group releases real-time performance indices for the manufacturing, services and construction sectors. These national indices are constructed from survey data collected from businesses Australia-wide, on a representative sample basis.

View the November performance data [here](#)