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Gorgon LNG facility just the beginning of a golden age in gas

JOSH FRYDENBERG



Yesterday, I attended the Gorgon LNG facility at Barrow Island off the coast of Western Australia. This plant is scheduled to make its first shipment this week, a significant milestone, considering that at a cost of about \$70 billion, Gorgon is the largest ever private-sector investment in Australia.

It is one of 10 major LNG projects across the country which will see Australia overtake Qatar as the largest LNG exporter in the world by 2020. When one considers that in 1989 Australia had only one LNG project, namely the North West Shelf, it is amazing to see how far we have come.

By 2020, Australia will have tripled its earnings from LNG exports to \$49bn, cementing LNG's position as one of our top-three exports together with iron ore and coal.

The scale of this golden age of gas is something to behold. In the last decade the construction phase of these projects in Australia have employed more than 100,000 people and seen more than \$200bn worth of investment.

Federal taxation revenue derived from the Gorgon project alone is estimated by ACIL Allen Consulting to total nearly \$70bn by 2040, and the project is expected to contribute more than \$440bn to national GDP. Employment has been created well beyond the 10,000 workers who were on site at Gorgon, with more than 600 local suppliers used for various parts of the project.

To underline the size of this undertaking, Gorgon's pipeline at 800km in length is further than from Melbourne to Adelaide and the steel used in the plant itself would be enough to build four

Sydney Harbour Bridges. Amazingly, each tanker leaving Gorgon

has enough gas to supply 80,000 homes in Tokyo for a year.

These energy exports have also given us added strategic weight in the region. By 2020 it is expected Australia will be supplying 40 per cent of both Japan and China's LNG needs and 25 per cent of that of Korea's. New Delhi, too, is a growing market and local Indian company Petronet has signed a 20-year contract for Australian gas coming out of Gorgon.

With the LNG production infrastructure now in place and a trusted reputation for reliable supply, Australia could not be better placed for the future.

The IEA estimates that of all the fossil fuels, including coal, oil and uranium, gas is the only one which will increase its proportion of the global energy mix between now and 2040.

Demand for gas over that time will increase by 50 per cent according to the IEA, with 85 per cent of that increase coming from non-OECD countries.

No doubt Australia will continue to face strong competition

for markets, particularly from the US which last month for the first time shipped domestically produced LNG from its terminals in Louisiana. Just a few years ago the US was building LNG import terminals as it was a net energy importer. Now, with the shale gas revolution all that has changed and the US is the new kid on the block scouring the world for buyers for its energy exports.

But what leaves me confident that Australia has the competitive edge over other countries is our level of innovation and technical proficiency.

Consider this, Gorgon has the largest subsea structure ever built in the world and the largest commercial scale carbon capture and storage operation the world has ever seen. By separating out the carbon dioxide from the gas before it is liquefied at minus 162 de-

grees and then injecting this into a saline formation up to 2km below the ground, the Gorgon plant is reducing its emissions footprint by up to 40 per cent. This is good news for the environment and a

significant technological advance.

Then there is floating LNG. The \$15bn Prelude LNG project which is expected to come on line in 2016-17 will operate offshore on a floating platform. The platform will weigh more than 300,000 tonnes and be the largest offshore facility ever built.

When production starts on Prelude, Australia will achieve another world first, being the only country to produce LNG in three ways, from conventional gas such as at Gorgon, from coal seam gas as it does from the projects in Queensland and from a floating platform.

A number of Australian gas firms are also leading the way with pioneering innovative practices. Santos is partnering with IBM to apply big data analytics to predict and solve problems on the pipelines and Woodside at its Pluto project is using autonomous vehicles on the ocean floor.

All of this innovation is good news for our scientists, geologists, engineers and technicians who are increasingly in high demand

on these big spending projects. Partnerships between large multinationals such as Exxon and Chevron have been established with our universities and the CSIRO is working closely with the private sector to apply their expertise to the creation of new jobs.

This level of innovation is attracting further investment in our country as global corporate leaders like GE set up regional hubs in Jandakot, Western Australia where they employ more than 300 highly skilled people focusing on digital transformation in the resources and energy sector.

While the first shipment from Gorgon may not be discussed at every kitchen table around the nation, its impact is profound and all



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Australians should feel proud. For Australia is soon to lead the world as the largest exporter of LNG, not just using our resources under the ground, but using our minds and our innovative practices as well.

Josh Frydenberg is the Minister for Resources, Energy and Northern Australia.

While the first shipment from Gorgon may not be discussed at every kitchen table around the nation, its impact is profound.

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