GASSED OUT: AUSTRALIA'S LNG CRISIS

Deputy Editor of the Globalist and second-year Journalism and International Relations student Jesse Neill investigates how affordability and availability of gas threatens Australia's energy security.

The modern economic system depends upon a constant and consistent access to energy supply to support the infrastructure of essential systems such as transportation, health services, security, and communication. As global demand for energy increases exponentially due to urbanisation, modernisation and a rising population, energy security has become a vital issue for the environment and world economy.

Australia faces its own challenges when it comes to energy security, largely due to the inadequate domestic supply of natural gas and the subsequent price spike. This was evidenced during South Australia's rolling blackout in February 2017 when excessive energy demand led to SA Power Networks switching off power to more than 90,000 homes and businesses. Utilising the state's most efficient gas power station at Pelican Point could have easily mitigated this crisis; however, the station was too expensive to run under current market structures. While blame is often placed on state governments for rejecting the development of coal-seam gas plants, this issue is far more complicated than first appears.

Increased costs are due to gas producers in Australia restricting domestic supply to consumers to achieve higher profits. This is possible due to an anti-competitive market structure whereby Australia's gas supplies are monopolised by six companies: Origin, Santos, Shell, BHP, Arrow Energy and Exxon. The Australian Competition and Consumer Commission (ACCC) has found these companies lack transparency on the volume and productive potential of Australia's gas wells.

Furthermore, to increase supply for overseas markets, conventional gas supplies are extracted in South Australia and Victoria. The inexpensive gas taken from the Bass Strait, which was used predominantly for local energy supply to cook and heat, is now transported to Queensland to be sold overseas. While there is no verifiable proof of sufficient domestic gas supply, BHP Petroleum chief Mike Yaeger stated in 2014 that the gas available in the Bass Strait could supply the East coast of Australia "indefinitely".

This comment certainly seems to suggest gas supply is restricted domestically and instead shipped overseas, resulting in increased local prices. It is reasonable to assume there would be enough gas to supply the domestic market, as Australia currently provides almost 12 per cent of global gas supply and is expected to become the largest exporter of Liquified Natural Gas (LNG) by 2020. While these issues are regional, they are exacerbated by a global glut in gas supply that is expected to continue until 2030. This places further pressure on gas companies to make money domestically and sell more gas overseas, in order to fulfil their contracts.

This comes at a time when Australian gas is sold in Japan for a wholesale price 40 per cent cheaper than Australia, despite it costing $AUD 3.70 more (per gigajoule) to ship the gas to Japan. Additionally, Japan's tax on Australian gas imports will deliver $AUD 2.9 billion over the next four years, while the Australian government will not make any money selling the gas overseas. Furthermore, Qatar — the world's biggest gas exporter — raises three times as many royalties as Australia for selling the same amount of gas.

The lack of a united, national policy on energy has compounded these issues. Ironically, the government were warned about the possibility of a crisis like this when three export terminals were approved in Gladstone almost eight years ago,allowing east-coast companies to export their gas overseas. While the federal government has recently stated it will ensure adequate gas supply and force gas companies to provide for the domestic market as their first priority, the solution to this issue is not necessarily more coal seam gas projects as Prime Minister Malcolm Turnbull suggests.

An alternative method could involve increasing efficiency to help reduce domestic demand, as outdated technologies have led to wasteful management and gas usage. Further to this, times of peak gas demand in households and industry during winter could be mitigated through the installation of pumped hydro facilities. Finally, gas-fired cogeneration plants — which produce heat as well as electricity (rather than letting heat escape as waste) — are 25 per cent more cost-effective than the most efficient gas-fired power generators in Australia. Each of these solutions could help reduce the demand and cost of gas, providing Australia with a more consistent and secure energy supply.

With the recent closure of major coal-fired power stations in Port Augusta and Hazlewood, it appears the government is pushing for greater dependence on gas as a major energy source in Australia. Furthermore, the Australian Energy Market Operator has warned the current gas price spike, in conjunction with future power supply shortfalls could cause blackouts in New South Wales, South Australia and Victoria unless gas production is boosted.

However, there seems to be an abundance of gas supply; it is the allocation of gas and management of demand that is poorly handled. This is a concerning situation as these issues force politicians to pander to the gas industries at the expense of public opposition, approving more coal seam gas projects.

Most importantly, however, the federal government must push for regulations to moderate the existing unethical market structure and increase transparency surrounding the production capacity of existing wells. This will allow for a more effective allocation of gas supply and management of demand, increasing Australia's energy security.