



24 March 2009

The Secretary
Senate Standing Committee on Economics
PO Box 6100
Parliament House
CANBERRA ACT 2600

Dear Sir

Exposure Draft Legislation to Implement the CPRS

The DomGas Alliance welcomes the opportunity to make a submission on the Exposure Draft of the Carbon Pollution Reduction Scheme Bill.

The Alliance has serious concerns about the Bill which fails to acknowledge the vital role of domestic gas supply as the most effective and efficient means of meeting Australia's greenhouse challenge during the next 20 years.

The Bill discourages domestic gas supply to industry and households by providing a financial incentive to gas producers to export Australia's clean energy reserves as LNG.

This could have serious unintended consequences and distort investment, discourage domestic gas supply, increase gas and electricity prices and undermine Australia's energy security. It could also lead to higher global greenhouse emissions and defeat the purpose of introducing an emissions trading scheme.

From a greenhouse policy perspective, it is illogical to compensate coal, mandate the use of renewable energy and incentivise gas exports, while ignoring domestic gas supply - the most greenhouse and energy-efficient fossil fuel.

The Alliance recommends that the Bill be amended to ensure the critical role of domestic gas supply in meeting Australia's greenhouse challenge and energy security needs. These recommendations and the Alliance's concerns are presented in this submission.

Critical role of natural gas in meeting Australia's greenhouse challenge

Natural gas is the only conventional energy source that can underpin Australia's transition to a low carbon economy during the next 20 years. Natural gas produces less than half the greenhouse emissions compared to coal and uses proven, readily available technology.

Combined cycle gas-fired plants and gas-fired cogeneration plants constitute by far the most greenhouse efficient forms of non-renewable power generation. Over its life, a new 350 megawatt per hour natural gas combined cycle plant will produce 30 million tonnes of carbon dioxide emissions, compared to 70 million tonnes for an equivalent coal power plant.¹ In terms of annual greenhouse gas emissions avoided, the difference is equivalent to removing 325,000 cars off the road.

Natural gas underpins the development of greenhouse-friendly gas fired cogeneration plants. Cogeneration plants at alumina refineries in Western Australia for example generate steam which is used in the alumina refining process, as well as electricity for supply into the grid. Cogeneration plants can achieve at least 75% energy efficiency, compared with 30-50% for comparable coal fired generation.

Natural gas is also critical to underpin future expansion of renewable energy in Australia. Only natural gas plants can provide the peaking power capacity necessary to support renewable power such as wind and solar, and which makes renewable energy a feasible source of energy for the local market.

Domestic gas supply is the most greenhouse- and energy-efficient use of Australia's natural gas reserves

From a global perspective, using natural gas to fuel Australian industry, power generation, small businesses and households is the most greenhouse and energy efficient use of Australia's natural gas resources. Unlike LNG, domestic gas does not need to be liquefied, shipped long distances in tankers and then regasified before it can be used as a fuel – an energy-intensive process.

Domestic gas supply is over 92% energy efficient, with less than 8% of energy lost in the supply chain. Transport through the Dampier to Bunbury Natural Gas Pipeline, the longest gas transmission system in Australia, only uses less than 3% of the energy.² In contrast, LNG is only 74% energy efficient, with 26% of the energy consumed by the LNG supply chain.

¹ Simshauser, P. and Wild, P. (2007) 'The WA Power Dilemma', p.23; www.bbpower.com/media/299790/25907%20wa%20energy%20summit.pdf.

² 2009 DomGas Alliance study.

In terms of lifecycle emissions, LNG produces 20% more greenhouse emissions on a per gigajoule basis compared to domestic pipeline gas.³ A copy of the Alliance's analysis is **attached**.

The Alliance's analysis is consistent with other international studies. A Carnegie Mellon University study found LNG generated almost 25% more greenhouse emissions over its lifecycle compared to domestic natural gas. The study also found that the upper band of emissions associated with LNG approached that of coal.⁴

A study by Climate Mitigation Services also found that liquifying and transporting natural gas in LNG tankers accounted for around 21% of the total lifecycle emissions of LNG.⁵

Claims by gas producers that Australia is helping solve the world's greenhouse problems by exporting its clean reserves of natural gas are therefore incorrect. Furthermore, Australian industry and electricity generators are in the main extremely energy efficient compared to their international counterparts. This reinforces the global greenhouse benefits of domestic gas supply.

The Bill discourages natural gas use and could have serious unintended consequences

Given domestic gas is the most greenhouse and energy-efficient fossil fuel, it is vital that the Bill ultimately promotes domestic gas supply and use. The Bill instead discourages domestic gas supply to industry and households by providing a financial incentive to gas producers to export Australia's clean energy reserves as LNG.

Under the Bill, the LNG industry is treated as an Emission Intense Trade Exposed (EITE) industry and will qualify for 60% assistance towards any emissions it produces from the production of LNG.

The production of domestic gas on the other hand qualifies for no assistance meaning that the full cost of a carbon tax will be borne by domestic gas, further impacting its price.

³ 2009 DomGas Alliance study.

⁴ Jaramillo, Griffin and Matthews, 'Comparative Life-Cycle Air Emissions of Coal, Domestic Natural Gas, LNG and SNG for Electricity Generation', *Environ. Sci. Technol.* 2007, 41, 6290-6296.

⁵ Heede, R., 'LNG Supply Chain Greenhouse Gas Emissions for the Cabrillo Deepwater Port: Natural Gas from Australia to California', Climate Mitigation Services Study, May 2006.

To the extent that the gas supplier is not able to pass onto its customers the carbon costs incurred at every step in the gas supply chain, this will distort investment decisions in favour of LNG over domestic gas. Where gas producers are able to pass on carbon costs to the domestic market, this will further increase the cost of natural gas for downstream industry.

If adopted, the Bill could have serious unintended consequences and distort investment, discourage domestic gas supply, increase gas and electricity prices and undermine Australia's energy security.

It could also lead to higher global greenhouse emissions, shift investment and energy use from gas to coal, and defeat the purpose of introducing an emissions trading scheme. From a global greenhouse perspective, it is illogical to discourage the most greenhouse and energy-efficient use of Australia's clean energy reserves by actively incentivising its export as LNG.

The competitiveness and uptake of natural gas will be further undermined by compensation provided to coal-fired energy for carbon costs and the support to renewable energy through a Mandatory Renewable Energy Target.

Escalating gas prices and domestic gas shortages in Western Australia are already undermining Australia's climate change response. At current prices in Western Australia, natural gas is no longer competitive with coal for baseload power generation and most resource processing.

A number of resource and energy development projects have had to resort to coal-fired energy with long term consequences for Australia's greenhouse footprint. This is unlikely to change under an emissions trading scheme.

Recommendations

The Alliance recommends that the Bill be amended to provide for:

- Explicit recognition of natural gas as the most greenhouse and energy-efficient fossil fuel, and the vital role of domestic gas supply in underpinning Australia's transition to a low carbon economy;
- The 60% assistance provided to gas producers for emissions produced from LNG production should be **extended** to include emissions produced from domestic gas production; and
- Natural gas used as a **fuel source** should be subject to the same assistance as natural gas used as a feedstock.

The Federal Government should also support **other initiatives** to promote the earlier uptake of natural gas as a transitional fuel in the initial years of the scheme. These initiatives are discussed in the Alliance CPRS Issues Paper which is also **attached**.

The Alliance believes that these recommendations, if implemented, will ensure the critical role of domestic gas supply in meeting Australia's greenhouse challenge and energy security needs.

Yours sincerely

A handwritten signature in blue ink, appearing to read "Stuart Hohnen". The signature is fluid and cursive, with a long horizontal stroke at the end.

Stuart Hohnen
Chairman, DomGas Alliance

The DomGas Alliance

The DomGas Alliance was formed in 2006 in response to a serious shortage of gas supply for new developments in WA. Membership includes current and prospective gas users and gas infrastructure investors.

Alliance members represent around 80 percent of Western Australia's domestic gas consumption and gas transmission capacity, including smaller industrial and household users of gas. The Alliance also represents a significant proportion of prospective demand for additional gas supplies.

Members include: Alcoa of Australia, Alinta, Burrup Fertilisers, Dampier Bunbury Pipeline, ERM Power / NewGen Power, Fortescue Metals Group, Horizon Power, Newmont Australia, Synergy and Verve Energy.

The Alliance works closely with State and Federal Governments and other industry stakeholders to promote diversity, affordability and security of gas supply for industry and households in WA.

