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Deputy Chief Executive Officer
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Email: [REDACTED]

Dear [REDACTED]

RE: Territory Economic Reconstruction Commission

The Australian Petroleum Production & Exploration Association (APPEA) welcomes the opportunity to make a submission to the Northern Territory Economic Reconstruction Commission.

It is clear that COVID-19 has had a profound impact on the world's economies. Australian governments have responded strongly to buttress the country against the dual impact of the COVID-19 health pandemic and the economic downturn and of course the response to both is intertwined. We applaud the formation and convening of the Economic Reconstruction Commission to investigate and consider policies and initiatives to not only recover from the pandemic and its adverse economic implications, but to grow the Territory's economy and make a positive contribution to the welfare of all Territorians. This submission summarises the important role that expanding and developing the Territory's important gas resources, both onshore and offshore, can play in reconstructing the Territory's economy.

The Australian oil and gas industry is a key component of the Northern Territory economy. Darwin is a substantial LNG export hub, home to two LNG plants (together comprising three LNG trains) and is the service and supply centre for the world-first Prelude Floating LNG project in the Timor Sea. The Territory is also home to one of Australia's longest-running petroleum operations with Central Petroleum near Alice Springs. The Inpex-operated Ichthys LNG and the Santos-operated Darwin LNG facilities directly employ approximately 850 full time workers, equivalent to 170 small businesses, and many more through service delivery. Related service and supply work for Territorian businesses is worth an estimated a total \$100 million per annum to the Territory, with room to expand this further.

The NT recorded its highest ever levels of international trade in the year to 2019, reaching \$8.1 billion with a 111.5 percent increase on the previous year¹. This result was mainly due to exports from INPEX's Ichthys LNG project in Darwin. The Northern Territory's oil and gas industry is proud of the role it plays in supporting the Territory's economy and mitigate the economic shocks of the COVID-19 pandemic.

The Territory, through its existing gas plants and prospective resources, is well positioned to further benefit from the growing demand for natural gas in the Asia Pacific region as economies recover from COVID-19, demand for energy balances, and countries to expand and modernize their energy systems while seeking to reduce their emissions. While the industry faces challenging market conditions in the short-term, the long-term demand for gas remains promising and the gas industry can meaningfully contribute to the nation-building task

¹www.nteconomy.nt.gov.au/international-trade

immediately and in the medium- to long-term if we get the policy settings right. More information on the domestic and global demand for natural gas can be found at [Appendix 1](#).

As recognised in the first report of the Commission, the long-term benefits from developing natural gas is significant. In terms of both direct economic contribution and employment and as an enabler of other industries. In 2015, Deloitte Access Economics reported that developing the Territory's substantial shale gas resources could create up to 6,300 new long - term jobs and generate up to \$1 billion in additional NT Government revenue over 20 years. More information can be found at [Appendix 2](#).

In addition to the long-term benefits of developing gas projects, APPEA recommends the Commission also recognise that exploration activity can play a significant role in delivering immediate jobs and investment opportunities to the Territory. APPEA member companies stand ready to invest millions in Territory businesses through this exploration phase. More information on these benefits can be found at [Appendix 3](#).

The oil and gas sector maintains and develops supply chain networks which will ensure that Australia will benefit from increased domestic and international demand for natural gas, as trade and economic activity resumes. In order to develop this important resource, APPEA seeks policies that support and promote a stable and competitive regulatory and fiscal regime, reduce unnecessary cost and duplication, and which attracts global investment for the benefit of all Territorians. We welcome the opportunity to provide additional information or to discuss this submission further with the Commission.

Yours sincerely



Keld Knudsen
Director – Northern Territory

Demand for Gas

The Territory, through its existing gas plants and prospective resources, is well positioned to benefit from the growing demand for natural gas in the Asia Pacific region as economies recover from COVID-19, demand for energy balances, and countries to expand and modernize their energy systems while seeking to reduce their emissions.

In the short-term, there is no doubt COVID-19 has had a profound global impact. Indeed, the pandemic triggered an unprecedented macroeconomic shock. As a result of the containment efforts to slow the spread of the virus, 4.2 billion people, or 54 per cent of the global population, representing almost 60 per cent of global GDP, has been subject to complete or partial lockdown. As a result, global energy consumption has fallen, with global gas consumption forecast to drop by 4 per cent in 2020.²

Faced with this unprecedented demand shock, natural gas markets are going through a strong supply and trade adjustment, resulting in historically low spot prices and high volatility. In the short-term this reduction in demand for gas due to COVID-19 has resulted in oversupply and deferred cargoes. However the future remains positive with recent analysis, such as from the International Energy Association (IEA) predicting a recovery in the demand for gas, especially in Asia-Pacific, commencing from 2021 and strengthening out to 2024 to pre-COVID demand levels.

This is a unique situation, but not the first commodity cycle endured by the industry. Global gas demand is cyclical in nature, and just like any other commodity in the Territory, the gas industry makes economic decisions over decades not months.

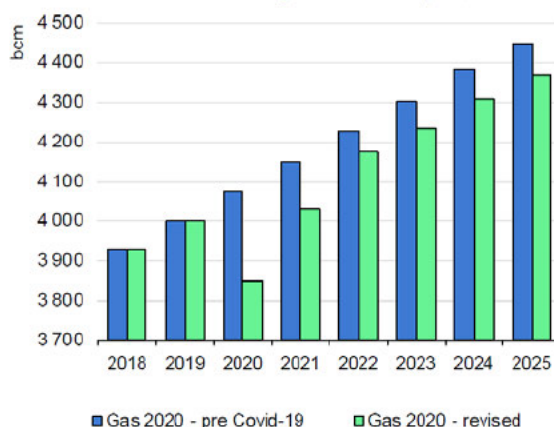
Asia is one of the highlights growth areas in the report, which notes that

... the Asia Pacific region accounts for over half of incremental global gas consumption in the coming years, driven principally by the development of gas in China and India.” “In spite of the current economic headwinds and uncertainty, natural gas still benefits from strong policy support in both countries, with ongoing reforms to increase the role of gas in the energy mix.

After a 4 per cent drop in 2020, natural gas demand is expected to progressively recover in 2021 as consumption returns close to its pre-crisis level in mature markets, while emerging markets benefit from economic rebound and lower natural gas prices. Most of the gas demand lost in 2020 is expected to be recovered in 2021, supplemented by growth from the Asia Pacific region. Further growth during the 2022-25 period is mainly driven by fast growing Asian markets.

The geographical proximity of the Northern Territory is a distinct advantage that means the Territory is well placed to serve the gas demand required in the Asia Pacific. In spite of the current economic headwinds and uncertainty, natural gas still benefits from strong policy support in the Asia Pacific region with ongoing reforms to increase the role of gas in the energy mix.

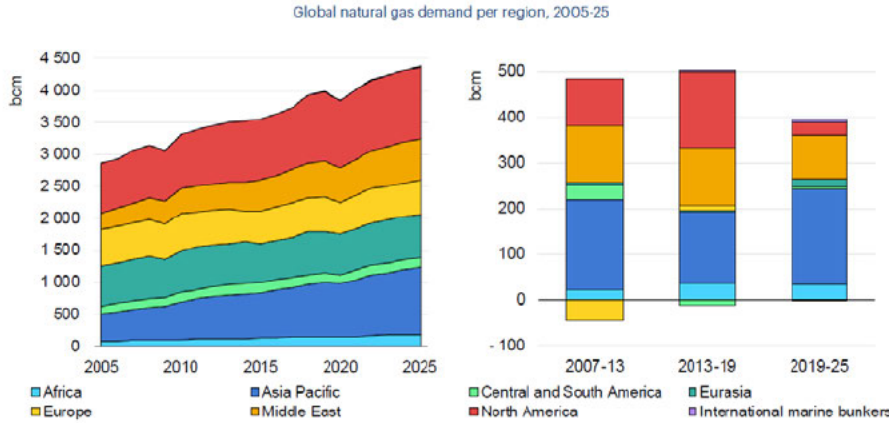
Evolution of global gas demand projections – initial forecast for 2020 and revised accounting for Covid-19 impact, 2019-25



² Abstract – Page 13 www.iea.org/reports/gas-2020.

Chart 1 shows an average annual growth rate of 1.5 per cent per year for the 2019-25 period, compared to initial forecast which assumed an average growth rate of 1.8 per cent per year over the same period.

The Asia Pacific region accounts for over half of incremental demand to 2025



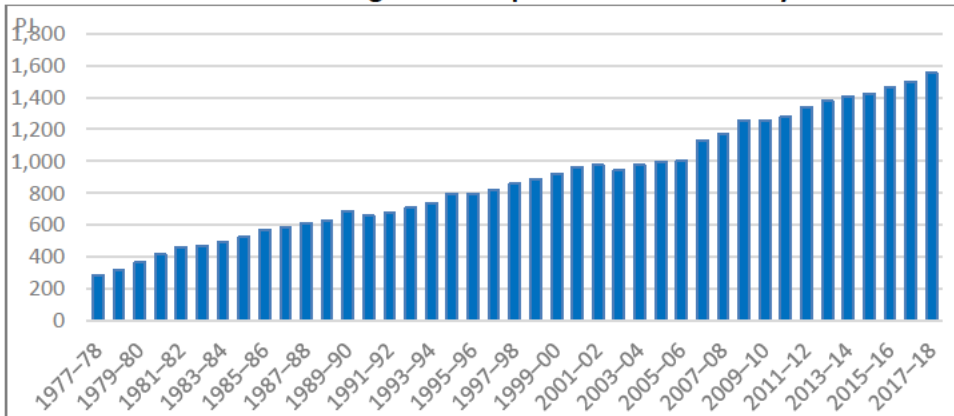
Globally, the IEA in its *World Energy Outlook 2019* considers natural gas will play a growing role in the energy mix out to 2040. By 2040, the IEA forecasts natural gas consumption to increase by 36 per cent as compared to 2018, and to account for a quarter of the energy demand.

In Australia, the demand for sources of domestic gas on the east coast also continues to be a driver for future gas development.

Domestic Gas Demand

Natural gas accounted for a quarter of all energy consumption in Australia in 2017-18, up from 19 per cent in 2000-01. Natural gas is used in electricity generation (37 per cent of total Australian gas consumption), manufacturing (26 per cent), mining (22 per cent), residential use (12 per cent), in commercial services, transport and the construction sectors.³ Natural gas consumption has grown consistently over the last 40 years in Australia and natural gas continues will play a major role in meeting the energy demand for decades to come.

Chart 2. Growth in Australian gas consumption over the last 40 years.



Source: Department of the Environment and Energy (2019) Australian Energy Statistics, Table C

³ Department of the Environment and Energy, [Australian Energy Update 2019](#), September 2019, Table F

Manufacturing

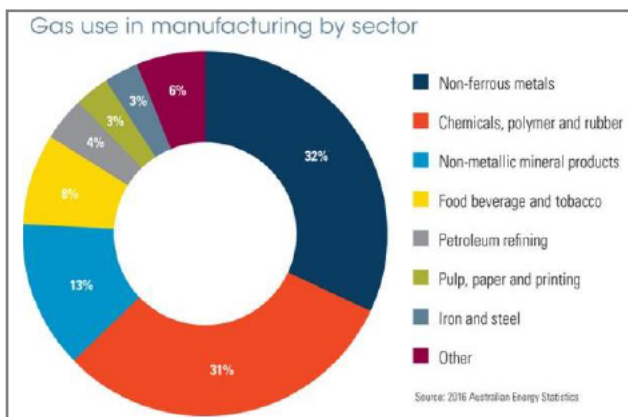
Natural gas is both a source of energy and an essential raw material (feedstock) for manufacturing. Almost one-third of the gas consumed in Australia is used by manufacturers.

About 225,000 people work in manufacturing sectors that rely heavily on gas; another 500,000 people work in related industries.

The main industrial uses of natural gas and gas-derived products are producing:

- Non-ferrous metals (such as aluminium, copper, zinc, tin).
- Chemicals and polymers (such as fertilisers, antifreeze).
- Non-metallic mineral products (such as glass, ceramics, cement, bricks).
- Plastic packaging for foods and beverages.

Gas is also needed at a key input in food preparation and processing, fermentation and brewing. Gas is second only to oil as an energy source for manufacturing. Gas is essential for many industrial processes, especially processes requiring high temperatures — without gas to fire kilns and furnaces, it would be impossible to make everyday products such as glass, bricks, paper, cement, steel and alumina.



Natural gas is also a raw material (feedstock) for creating products such as fertilisers, explosives, paper, plastics and chemicals. In most cases, there is no substitute for gas. Gas is used to produce ammonia, which is an important feedstock for several industries.

The most commonly used fertiliser in the world is urea, which is produced from ammonia. Producing each tonne of urea requires 21GJ of natural gas — this is approximately equivalent to gas required to provide the Territory's total electricity for an year and a half. Australian industries, such as agriculture, use 1.6 million tonnes of urea each year. Ammonia is also used to make explosives and cleaning products, and in fermentation, brewing and winemaking.

The plastics used in food packaging, plumbing, guttering, fibres, textiles, machine parts and a host of other applications are made from ethane derived from natural gas. For more information please see

www.appea.com.au/industry/policy/policy-positions/manufacturing-with-gas.

Medium and long term opportunities

As recognised in the Commission's initial report, there are significant opportunities for the territory through the growth of oil and gas. The expansion and infill of offshore resources for Darwin LNG and Inpex LNG, and in the exploration of new resources onshore. The potential to develop gas as both a source of energy and an essential raw material (feedstock) for manufacturing is a significant opportunity for growing the Territory economy.

The Beetaloo Sub-basin is a promising shale gas resource and has the potential to attract significant investment. APPEA welcomes recognition of this in the Commission's first report. The Beetaloo Sub-basin resource represents a substantial growth opportunity for the Territory.

In 2015, Deloitte Access Economics reported that developing the Territory's substantial shale gas resources could create up to 6,300 new long-term jobs and generate up to \$1 billion in additional NT Government revenue over 20 years. Indeed, should this scenario occur, it would contribute 17 percent and 50 percent respectively of the commissions goal to "create 35,000 new jobs and growing from a \$26 billion economy to a \$40 billion economy in the Territory."⁴ The report by Deloitte access economics is attached to this submission.

Natural gas has also been proven as a key enabler of other industries. Gas-fired generators allow integration of more renewable electricity as they can be rapidly started making them complementary with intermittent renewable energy while exporting gas as LNG will allow our Asian trading partners to reduce the emissions from their economies.⁵⁶ For instance, the Western Downs region of Queensland has seen significant power infrastructure upgrades due to the emergence of the natural gas industry. This "infrastructure from resources provides an ideal network for renewables developments".⁷

Gas is also a feedstock for important products like plastics, and chemicals. Gas is, for example, a key input into the production of hand sanitiser and industrial cleaners, for instance – there is no alternative product to provide this. Access to reliable energy is critical to supporting manufacturing in the Territory and Australia. This proposition would hold even more potential should the Beetaloo contain "wet-gas" including propane or butane. The role of gas, and the potential to grow that into supporting renewables and manufacturing is an exciting opportunity for the Territory.

Improving the opportunities for investment

The right policy settings will improve investment attractiveness, help to stabilise the NT and facilitate the growth and investment that will stimulate local economies, create new job opportunities and generate government revenue.

APPEA makes a number of recommendations to improve competitiveness and certainty for investment and we welcome the opportunity to provide more information to the Commission on these items if requested:

⁴Deloitte Access Economics (2015), *Economic impact of shale and tight gas development in the NT*. www.appea.com.au/wp-content/uploads/2020/06/APPEA_Deloitte-NT_Unconv_gas_FINAL-140715.pdf.

⁵ See *Gas Vision 2050* for more information. *Gas Vision 2050* was developed by Australia's peak gas industry bodies and demonstrates how gas can continue to provide Australians with reliable and affordable energy in a low-carbon energy future. www.appea.com.au/media_release/gas-vision-2050

⁶ Australian Government, *Technology Investment Roadmap Discussion Paper* – Pages 28-29. consult.industry.gov.au/climate-change/technology-investment-roadmap

⁷ Renewable Energy in the Western Downs, TSBE, www.tsbe.com.au/sites/default/files/uploaded-content/field_f_content_file/renewables_fact_sheet.pdf.

Energy policy

- The Northern Territory Government should develop an energy policy framework by June 2021 that recognises the climate benefit of natural gas and supports the development and expansion of the industry in the Northern Territory.
- Natural gas from existing resources and future sources such as onshore gas, can make it possible for the Northern Territory to meet national domestic energy needs over the coming decades
- Abundant natural gas resources, particularly offshore Northern Australia has enabled the Northern Territory to secure major investments and establish world class LNG facilities.

Fiscal competitiveness

- A simple, equitable and efficient royalty regime based on global best practice that strikes to appropriate balance between providing the Territory with an appropriate return for the use of its non-renewable resources and incentivising increased investment and development in the Territory.
- Increase investment stability and certainty by ensuring that there are no changes to a re-developed royalty regime for 10 years.

Preparing for production and supporting future investment

- Government supports development-ready approaches, predicting and paving the way for billions in potential investment in the Territory.
- Government invests in developing a regional infrastructure development plan for regional areas, especially around the Beetaloo Sub-basin to identify and support enabling infrastructure for natural resource development, including telecommunications, roads, and water management.
- Pipeline corridors are considered and progressed now to accelerate production timelines and mitigate against potential future delays.
- Government invests in the capability of relevant Land Councils in anticipation of working with the gas industry after successful exploration and to proceed to a production scenario.
- The Government seeks alignment between State and Federal environmental approvals (EPBC), including leveraging the Federal Geological Bioregional Assessment (GBA) program, consideration of strategic approaches, and ensuring that information gathered contributes to facilitating approval pathways. i.e. information gathered is directly relevant to project assessment.

Support value-adding Industries to further grow and diversify the economy, creating jobs and investment

- Government supports value adding industries, including gas-based manufacturing to help grow the Territory economy and diversify its economic and taxation base. By doing so Government supports a realistic price of gas that considers the operating reality of major gas projects.
- Governments recognise that significant capital investments can only be made with the support of long-term contracts and long-term regulatory and policy certainty that encourages and enables investment.

Exploration – immediate jobs and investment opportunities

Exploration for natural gas, especially in the Beetaloo Sub-basin, can play a role in delivering immediate jobs and investment opportunities to the Territory. Prior to COVID-19 there were approximately 200 people directly working on the exploration program and more than 25 percent of those workers were Territorians.

Immediate benefits are delivered to small and medium businesses in the NT through the numerous goods and services they provide to exploration activities. This includes civils and construction, machinery hire, food supplies, vehicle hire, mechanical services, tyre services, engineering services, waste management services, medical and health service to name but a few. APPEA estimates that up to \$150 Million in contracts per year were active with local Territory business undertaking exploration and exploration support activities, supporting numerous employees. These locally sourced contracts included a wide range of business and have a combined value in the millions of dollars, such as:

- Silver City Drilling – who currently drilled their fourteenth water bore for Santos since late 2018 – including one for the landholder under the Land Access Agreement. Their head office and workshop in Alice Springs.
- Rusca Brothers in Darwin who was supplying the civil works for Santos' wells, and MS contracting in Humpty Doo are supplying the camp.
- Arnhem Earthmoving and Mechanical together with Phillips Earthmoving is providing Origin with civils work associated with the companies next two proposed exploration wells.
- Triple P from Elliot have a contract to provide monitoring services for Origin at all existing well locations as well as maintenance works for the Daly Waters airstrip.
- KD Machinery Hire, Broadmere Station, provided earthmoving equipment for seismic line clearance and rehabilitation on Imperial Oil and Gas recent seismic survey.
- Allwell, Howard Springs, provided water well drilling for Imperial Oil and Gas 2020 Carpentaria-1 well.

APPEA recommends that the Commission recognise the immediate job creation and economic stimulus opportunities that exploration activities can bring to the Territory.

In this regard, there are a number of actions that can be undertaken by the Territory government to support the resumption of exploration activities to drive immediate jobs and investment across the next 12-18 months:

1. Government commits to consistent implementation of regulatory framework for hydraulic fracturing;
2. The Beetaloo sub-basin Strategic Regional Baseline Assessments (SREBA) continues to be prioritised to collect essential baseline data that is cost effective, relevant, reasonable, and measurable;
3. Unnecessary, excessive, and overlapping regulatory costs that result in delays in approvals are identified and minimised;
4. Approvals for exploration and appraisal activities are actively facilitated and championed by a single point of contact in the Government;
5. Engagement with Government Department annual policy work programs as they relate to gas activities. This includes the departments of Primary Industry and Resources, Environment and Natural Resources, and Trade and Business Investment.
6. Tenure arrangements are amended to support ongoing investment in exploration and allow lower relinquishment terms in recognition of the investment and exploration performed to date.

DELOITTE ACCESS ECONOMICS