

The Hon. Justice Pepper
Hydraulic Fracturing Taskforce
GPO Box 4396
Darwin, NT 0801, Australia

CORE
ENERGY
GROUP



The Honourable Justice Pepper,

Scientific Inquiry into hydraulic fracturing of onshore unconventional gas resources in the Northern Territory

Thank you for the opportunity for Core Energy Group Pty Limited (Core Energy) to make this submission.

The focus of this submission is three-fold:

To offer independent opinion on:

1. the national significance of the potentially world scale NT onshore unconventional gas resource
2. the economics of gas exploration and development
3. a submission by the Institute for Energy Economics, Bruce Robertson, Submission #142

1. National Significance of onshore unconventional NT Gas Resource

Australia has long been an economic and social beneficiary of a diverse national resource base. There is a wide range of evidence that such a resource base has contributed materially to the development of an exciting modern economy, of international standing, that all Australians enjoy today. Accordingly, we must take great care in making decisions regarding our resources which have the potential to impact the quality of life of existing and future generations of Australians.

Gas has become an important resource to Australia, in terms of domestic supply to: households and commercial enterprises, industry and power generation and also as a major source of export revenue – moving to become our nation's largest single source of commodity export revenue. Well over 20% of primary energy in Australia today is sourced from gas. Therefore, any assessment of issues which could materially curtail such supply must be considered in a national energy context.

Core Energy believes that this inquiry should take a broad perspective of the economic and social impact of potential future gas supply from onshore unconventional NT resources, including but not limited to:

- The potential to develop an internationally competitive cost of supply (see below) with benefits for households, small to mid-size business and larger industrial customers
- The potential to supply cleaner fuel (half emissions of coal) to generate electricity as we move to retire low cost but higher emitting coal generation facilities over the coming decade.
- The value of potential exports by linking to existing LNG hubs, with consequences for royalty and export revenue and thus budgets and terms of trade
- Employment and associated broader economic multipliers
- Regional economic development
- Optimisation of existing and planned infrastructure

2. Economics of Gas Supply

Too often today analysts and commentators make statements and present arguments which lack adequate fact base and analytical rigour. Core Energy Group has provided expert advice on the majority of Australia's gas resource projects over the last 15 years, and longer if prior industry experience of its employees is included. That said we are an independent energy specialist and provide expert support to stakeholders along the complete value chain.

Core Energy believes it is important to ensure that any reference to the economics of exploration and development, as it relates to onshore NT unconventional gas resources, is based on rigorous analysis.

Core Energy is of the view that there is a probability in the order of or greater than 50% (qualitatively assessed based on multi decades of experience and quantitative analysis), that any large-scale discovery of gas resource in NT will be economic. As with any other discovered petroleum resource where there is uncertainty around economic viability, an appraisal program to determine well deliverability should clarify the economic viability of the resource.

Factors which must be considered in a rigorous analysis of the economics of gas resource include:

- Potential resource size/scale and scale of sales gas production
- Well productivity – initial rate, decline and Expected Ultimate Recovery
- Gas specification and product realised prices
- Timing of development and production
- Capital cost – including drilling and completion, gathering, compression, processing, transmission connection and savings to be expected from economies of scale , technical innovation and improved performance associated with long term capital projects
- Operating cost - maintenance, consumables, utility costs, labour and other materials and savings associated with long term strategic contracting and work place efficiencies
- Taxes and royalties

3. Comments on Institute for Energy Economics Bruce Robertson Submission #142

A submission by Mr. Robertson concludes:

“The development of an onshore gas industry in the Northern Territory is not currently economically possible. The costs of production and transportation do not match the prices consumers are willing to pay in either Asia or domestically.

There is a high likelihood that shale gas will not offer greater energy security for the Northern Territory. It could result in the opposite effect. If the expensive to extract shale gas were brought to market the high price would be passed on to consumers.

This has already clearly been seen in the Eastern States of Australia where the development of the high cost coal seam gas industry has not seen increased energy security in fact it has resulted in soaring domestic prices for gas and decreased availability for domestic consumers. Energy security for the Eastern States consumers has declined with the development of Coal Seam Gas.

There is a risk that investment in high cost shale gas, in the Northern Territory would stymy investment in energy that can be provided at a lower price and with greater certainty to consumers.”

In reaching this conclusion Mr. Robertson references analysis undertaken by Core Energy. Core believes that the references made to Core Energy analysis should carry no weight in this inquiry as the analysis referenced is now outdated (there has been a major realignment of costs since the material decline in world oil prices), and were developed for a totally unrelated matter and on a basis which did not take into consideration developments of a large scale such as those which could evolve in the McArthur/ Beetaloo Basin and other areas.

Current analysis by Core Energy indicates that a large-scale resource discovery with an attractive well productivity profile indicates that gas could be developed on a sustainable, cost competitive basis from both domestic and export market perspectives – in the order of AUD5-6/GJ.

Thank you.

Yours sincerely,



Paul M Taliangis

Chief Executive