

Scope of Services

Background to the Inquiry

On 14 September 2016 the Chief Minister of the Northern Territory, the Hon Michael Gunner MLA, announced a moratorium on hydraulic fracturing of onshore unconventional reservoirs in the Northern Territory. At the same time, the Chief Minister announced that a *Scientific Inquiry into Hydraulic Fracturing of Onshore Unconventional Reservoirs in the Northern Territory* (the **Inquiry**) would be established and released draft Terms of Reference, which were open for public comment for four weeks.

On 3 December 2016 the Northern Territory Government announced the final Terms of Reference for the Inquiry and the composition of the panel that will be undertaking the Inquiry (the **Panel**).

The Inquiry was established under section 4 of the Inquiries Act 1945 (NT) and is comprised of a judicial chair, the Hon Justice Rachel Pepper, and ten highly regarded scientists with expertise in areas ranging from hydrogeology to social science.

The Inquiry's final Terms of Reference can be read in full on the Inquiry's website (www.frackinginquiry.nt.gov.au).

On 20 February 2017 the Inquiry released a Background and Issues Paper, also available on the Inquiry's website, which was followed by hearings and community meetings held in March 2017 in various town centres and remote communities across the Northern Territory. The Issues Paper includes a timeline for the Inquiry, which indicates that an interim report will be released in mid-2017, a draft final report will be released during the last quarter of the year, and a final report will be released in December 2017.

The Hydraulic Fracturing Taskforce (the **Taskforce**) has been established in the Department of the Chief Minister to support the Inquiry.

Terms of Reference for the Inquiry and the economic impact theme

The Panel has divided the work of the Inquiry into the following themes: water, land, air, social impacts, economic conditions, cultural conditions, human health, land access, and the regulatory framework. This request relates to the economic theme only, however, there are overlaps with the social impact and regulatory framework themes. A sub-group of Inquiry Panel members has been allocated responsibility for each theme.

The Terms of Reference for the Inquiry require the Panel to do the following in respect of each theme:

- determine and assess the impacts and risks associated with hydraulic fracturing of unconventional reservoirs and the associated activities;
- determine whether additional work or research is required to make that determination;
- advise the level of impact or risk that is acceptable in the Northern Territory context;
- describe methods, standards or strategies that can be used to reduce the impact and risk to acceptable levels; and
- identify what government can do, including implementing any policy or regulatory changes, to ensure that the impacts and risks are reduced to the required levels.

The *Background and Issues Paper* includes a non-exhaustive list of the potential risks and benefits associated with the economic theme at page 22.

In accordance with the definitions in the Terms of Reference, a reference to an "unconventional reservoir" in this document is a reference to a reservoir where the rock formation is *shale*. There is currently no gas being produced from unconventional, or shale, reservoirs in the Northern Territory. The Amadeus Basin is currently producing gas from conventional reservoirs.

With regard to the third Term of Reference stated above, the level of impact or risk that is acceptable will ultimately be a matter for the decision maker under the relevant legislation

(typically the Minister), however, at this stage the meaning of acceptability or acceptable levels of risk is a matter for the Panel, taking into account principles of ecological sustainable development, including the precautionary principle and intergenerational equity.

The Terms of Reference make it clear that the Panel must not only look at the impacts of hydraulic fracturing and the associated activities on economic conditions in the Northern Territory – the Panel must also consider the economic impacts of the onshore unconventional gas industry as a whole on the Northern Territory. This is made clear in the following extract from the Terms of Reference, which has been amended to include the relevant language only:

"When the inquiry makes a determination... about whether or not there has been an impact or risk on ... economic conditions, the inquiry will ... consider the impacts and risks of the development of the onshore unconventional gas industry, including exploration activities such as seismic surveys and aerial surveys, land access and costs and benefits of the industry."

Steering Committee

A Steering Committee has been established to oversee the work. The Steering Committee is comprised of the Hon Justice Rachel Pepper, Dr Vaughan Beck and the Executive Director of the Hydraulic Fracturing Taskforce. The point of contact for all matters will be the Executive Director of the Hydraulic Fracturing Taskforce.

Probity Advisor

The Territory has appointed a Probity Advisor to oversee the Territory's processes in relation to the stages of this process. The Probity Advisor's role is to ensure that fairness and impartiality are observed throughout, and that the evaluation criteria stated in any related documentation are consistently applied to all submissions.

Scope of Work

The supplier must consider the following scenarios:

- **Scenario 1** or the baseline scenario, where the moratorium on hydraulic fracturing of unconventional shale gas reservoirs remains in place;
- **Scenario 2**, which involves the development of the onshore unconventional shale gas industry in the Northern Territory; and
- **Scenario 3**, which involves the development of unconventional shale gas reservoirs in the Beetaloo sub-basin only.

Benefits

The supplier must describe, in both quantitative and qualitative terms, the actual and potential direct and indirect economic benefits associated with each of Scenarios 1, 2 and 3 on the Northern Territory economy under the current regulatory regime.¹

The supplier must describe, in quantitative and qualitative terms, the actual and potential direct and indirect economic benefits associated with Scenario 2 on the national economy under current regulatory, fiscal and economic settings.

For each of Scenarios 1, 2 and 3 the supplier must estimate the following:

- Gross State Product (**GSP**);
- State Final Demand (**SFD**);
- employment;
- business investment and output;
- CPI;
- population;
- wages; and
- the quantum of royalties that might be received by the Northern Territory Government under the *Petroleum Act 1984* (NT) (to avoid doubt this will include any royalties received in connection with both unconventional and conventional reservoirs).

¹ Indirect benefits might include the opening up of supply chains for local businesses, innovation spin offs, opportunities to develop or support supply and maintenance industries and any other flow-on opportunities the supplier identifies.

The supplier must provide the Steering Committee with:

- in accordance with Part C, any assumptions made and an explanation of the methodology used to develop such assumptions, both of which must be approved by the Steering Committee prior to undertaking any economic modelling. The supplier must explain how reasonable and reliable the assumptions are, as well as how any potential bias has been managed, and
- a description of the similarities or differences between the assumptions made under item 7(a) above and the assumptions made in the report entitled *Economic Impact of Shale and Tight Gas Development in the Northern Territory* dated 14 July 2017 by Deloitte Access Economics.

The supplier must describe the options available to the Northern Territory Government, whether through policy or regulatory reforms or otherwise, to maximise and sustain the benefits captured by Territorians and others.² In this regard the supplier must:

- conduct a literature review to advise on leading practice methods for the sustainable development of onshore unconventional shale gas projects from an economic perspective, and
- provide case studies and examples from comparable jurisdictions, including domestic and overseas jurisdictions, where such options have been successful and unsuccessful and what lessons can be learned from these experiences in the Northern Territory context.

The supplier must describe the options available to the Northern Territory Government, including regulatory or policy reforms, for how revenue from the development of onshore unconventional shale industry can be retained both jointly and separately in the regions affected by the development and the Northern Territory, in each case, without impeding investment. Consideration must be given to:

- local procurement requirements, local training programs and other mechanisms to improve local capacity as well as any 'Royalty for Regions' or similar type programs, and
- case studies and examples from comparable jurisdictions, including domestic and overseas jurisdictions, where such options have been successful and unsuccessful and the lessons that can be learned for the Northern Territory context.

Risks

The supplier must describe, in qualitative terms, any actual and potential adverse impacts and risks associated with Scenario 1, Scenario 2, and Scenario 3 on the Northern Territory economy under the current regulatory regime.

The supplier must consider the impacts of development on other industries in the Northern Territory, including, but without limitation, the tourism, agricultural, horticultural and pastoral, industries.

The supplier must describe the options available to the Northern Territory Government, including policy or regulatory reforms, to mitigate and manage any actual and potential impacts and risks identified above. For example, the supplier must advise what the Northern Territory Government can do to mitigate any "boom and bust" economic cycle associated with the development of any unconventional shale gas industry.

The supplier must:

- conduct a literature review to advise on leading practice methods that could be used to manage and mitigate any risks identified, and
- provide case studies and examples from comparable jurisdictions, including domestic and overseas jurisdictions, where such options have been successful and unsuccessful, and what lessons can be learned from these experiences in the Northern Territory context.

² It is noted that onshore unconventional gas industry, local communities, local governments, Aboriginal stakeholders (including Aboriginal land councils and prescribed bodies corporate under the *Native Title Act 1993* (Cth)) have a significant role to play in the maximisation of economic benefits, however, the scope of the work is limited to actions that government can take.

Assumptions

No production licences have been granted under the Petroleum Act for the purpose of producing unconventional shale gas in the Northern Territory. Further exploration work, including the drilling of appraisal wells, is required to fully understand the scope of the Northern Territory's shale gas reservoirs and whether or not they are commercially recoverable.

The most prospective area for shale gas development, should the moratorium be lifted by the Government, is the Beetaloo sub-basin (see Attachment A). Origin Energy announced a significant discovery of unconventional shale gas in the Beetaloo sub-basin in February 2017, which significantly increased prior estimates of the resource.

In developing any assumptions required to undertake Part A and B, the supplier must consult with relevant stakeholders, including, but without limitation, the Departments of Treasury and Finance; Primary Industry and Resources; Trade, Business and Innovation; Chief Minister; Northern Territory Farmers; the Northern Territory Cattlemen's Association; petroleum operators and titleholders in the Beetaloo sub-basin, Aboriginal Land Councils, and the Australian Petroleum Production and Exploration Association.

The supplier must notify the Steering Committee prior to any consultation and members of the Steering Committee may attend the consultation.

Timelines and Reporting

The work must be in the form of a written report. The report must be written in plain English. All technical terms (including economic metrics such as Gross State Product, State Final Demand, and employment multipliers) must be explained.

At the end of each calendar month following the award of the tender the supplier must provide the Steering Committee with a written progress report and a verbal presentation within five working days of receipt of the report.

The supplier must provide the Steering Committee with a draft final report and a verbal presentation to the Steering Committee on or prior to 18 August 2017.

A final report must be provided to the Steering Committee by 1 September 2017 and the supplier must present the final report to the Panel on a date to be determined.

The Inquiry will publish the final report on the Inquiry's website on a date to be determined.

The supplier must keep all correspondence, reports and presentations to the Steering Committee confidential, except that the supplier may make the final report publicly available after it has been published on the Inquiry's website.

SCIENTIFIC INQUIRY INTO
HYDRAULIC FRACTURING
IN THE NORTHERN TERRITORY



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