

# SCIENTIFIC INQUIRY INTO HYDRAULIC FRACTURING IN THE NORTHERN TERRITORY



Alberta Energy Regulator  
Submission #483

Ms Carol Crowfoot  
Executive Vice President of Strategy and Regulation  
Alberta Energy Regulator

By email: c/o [REDACTED]

Dear Ms Crowfoot

## **RE: HYDRAULIC FRACTURING INQUIRY – INFORMATION REQUEST**

I write as Chair of the Northern Territory Government of Australia's independent *Scientific Inquiry into Hydraulic Fracturing of Unconventional Reservoirs in the Northern Territory (the Inquiry)*.

The Inquiry was established by the Northern Territory Government, under the *Inquiries Act 1945* (NT) in December 2016 to investigate the impacts and risks of hydraulic fracturing of onshore shale gas reservoirs and associated activities on the environmental, social, economic and cultural conditions in the Northern Territory. Attached to this letter are the Inquiry's Terms of Reference as determined by the Northern Territory Government.

I seek an opportunity to discuss the Alberta Energy Regulator's (**AER**) experience with shale gas development and to gain a greater understanding of the regulatory framework within which AER operates and which governs onshore shale gas development in Alberta. This information is directly relevant to the Inquiry's Terms of Reference and the recommendations that the Inquiry must make, particularly in respect of amendments to the existing regulatory regime governing the development of any potential onshore shale gas industry in the Northern Territory. As you may be aware, I have been liaising informally with Dr Kevin Parks in this regard.

Following any proposed initial discussion, I understand that there may be an opportunity to use the information obtained from AER, possibly through written question and answer format, as a submission to the Inquiry and made available on our website at [www.frackinginquiry.nt.gov.au](http://www.frackinginquiry.nt.gov.au). If not, this will not present a difficulty to the Inquiry.

The Inquiry released its *Interim Report* in early July 2017 and is currently preparing a draft Final Report for release towards the end of October, following which there will be another round of community consultations. The Inquiry has committed to completing its Final Report for the Northern Territory Government by the end of 2017.

I therefore look forward to hearing from you in the very near future and thank you, in advance, for facilitating discussion between the Inquiry and AER. In the meantime, if there are any resources you can provide to us in electronic format in advance, they will be gratefully received.

My direct contact details are [REDACTED] or by telephone on [REDACTED]. Alternatively, you can contact [REDACTED] the Taskforce supporting the Inquiry on [REDACTED] or [REDACTED].

Yours sincerely



THE HON JUSTICE RACHEL PEPPER  
Chair  
13 September 2017

# Terms of Reference for the Scientific Inquiry into Hydraulic Fracturing of Onshore Unconventional Reservoirs and Associated Activities in the Northern Territory

## Background

On 14 September the Northern Territory Government announced a scientific inquiry into hydraulic fracturing of onshore unconventional reservoirs in the Northern Territory (the **Inquiry**) under the *Inquiries Act (NT)*.

## Definitions

For the purposes of this document:

“Associated Activities” means:

- a. the acquisition of ground or surface water for hydraulic fracturing;
- b. the mixing of water, chemicals and proppant to create hydraulic fracturing fluid;
- c. the return of injected fluid and water produced from the unconventional reservoir to the surface after hydraulic fracturing, and subsequent transport for reuse, treatment or disposal; and
- d. the reuse, treatment and release of wastewater generated by hydraulic fracturing.

“environment” means land, air, water, organisms and ecosystems and includes:

- a. the well-being of humans;
- b. structures made or modified by humans;
- c. the amenity values of an area; and
- d. economic, cultural and social conditions.

“environmental impact” means any change, or potential change, to the environment.

“environmental risk” means the chance of something happening that will have an environmental impact, measured in terms of the environmental consequences and the likelihood of those consequences occurring.

“hydraulic fracturing” means the injection of fluids under pressures high enough to fracture the gas bearing formation where the fluid is comprised of water, chemicals and proppant.

“unconventional reservoir” is a reservoir where the gas bearing formation is shale.

## Terms of reference

The Inquiry will:

1. assess the scientific evidence to determine the nature and extent of the environmental impacts and risks, including the cumulative impacts and risks, associated with hydraulic fracturing of unconventional reservoirs and the Associated Activities in the Northern Territory;

2. advise on the nature of any knowledge gaps and additional work or research that is required to make the determination in Item 1, including a program for how such work or research should be prioritised and implemented, that includes (but is not limited to);
  - a. baseline surface water and groundwater studies,
  - b. baseline fugitive emissions data,
  - c. geological and fault line mapping, and
  - d. focus areas for baseline health impact assessment,
3. for every environmental risk and impact that is identified in Item 1, advise the level of environmental impact and risk that would be considered acceptable in the Northern Territory context;
4. for every environmental risk and impact that is identified in Item 1,
  - a. describe methods, standards or strategies that can be used to reduce the impact or risk; and
  - b. advise whether such methods, standards or strategies can effectively and efficiently reduce the impact or risk to the levels described in Item 3;
5. identify any scientific, technical, policy or regulatory requirements or resources that are in addition to the reforms being implemented through the existing environmental reform process that are necessary to reduce environmental risks and impacts associated with the hydraulic fracturing of unconventional reservoirs to acceptable levels; and
6. identify priority areas for no go zones.

When the Inquiry makes a determination under Item 1 about whether or not there has been an impact or risk on economic, cultural and social conditions, the Inquiry will not only consider the impacts and risks of hydraulic fracturing and the Associated Activities, it will also 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. This may be undertaken through a social impact assessment or similar activity.

## Methodology

In the course of delivering the Terms of Reference, the Inquiry will:

1. advise the timeframe for the Inquiry prior to 1 January 2017;
2. develop and implement a stakeholder engagement program, which will be publicly released prior to 1 January 2017 and which will include opportunities for the public to give written submissions and meet with the Inquiry in Darwin, Katherine, Tennant Creek and Alice Springs (and potentially other communities) prior to and following:
  - a. the release of an Interim Report on the Findings of the Inquiry; and
  - b. the release of a draft Final Report on the Findings of the Inquiry;
3. have regard to issues raised in the course of implementing the stakeholder engagement plan that relate to the Terms of Reference;
4. subject to any request for a submission or any part thereof to be kept confidential, make all submissions to the Inquiry publicly available;
5. have regard to relevant domestic and international reviews and inquiries regarding the environmental impacts and risks associated with hydraulic fracturing of unconventional reservoirs and the Associated Activities; and
6. consider the principles of ecological sustainable development and the precautionary principle.

Ends.