



IMPLEMENTATION

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16.1 The Government must accept and implement all of the recommendations

The recommendations in this Report are a complete package. It is only the implementation of the entire package that will create the framework that will mitigate the risks associated with any onshore shale gas industry in the NT to an acceptable level. If the Government does not implement all the Panel's recommendations, then the Panel, in the Panel's assessment, is not able to state with certainty that the identified risks will be mitigated to acceptable levels.

Recommendation 16.1

That the Government implements all of the recommendations in this Report.

16.2 Implementation of recommendations must be clear, timely and transparent

The community's very real and understandable concerns with onshore shale gas extraction (including hydraulic fracturing) and the public's lack of trust in the Government's capacity and/or willingness to regulate any onshore shale gas industry have been discussed in detail in this Report. If the Government lifts the moratorium, the implementation of the recommendations must be effected in a timely and transparent manner to address these concerns. From the outset, there must be clarity about who is implementing the reforms, how they are being implemented, and when they will be implemented.

The clear, timely and transparent implementation of the recommendations is also necessary to provide certainty to any onshore shale gas industry about the regulatory regime that will govern the industry. Industry will be reluctant to invest in a jurisdiction where there is uncertainty about the regulatory framework.

16.3 Timing of the implementation of the recommendations

In the Draft Final Report, the Panel stated that some of the recommendations had to be implemented "*prior to the grant of any production licence*". For example, the Panel had recommended that the Water Act be amended to apply to any onshore shale gas industry and that a SREBA in the Beetaloo Sub-basin had to be completed before any production licence was granted.

However, during the final round of consultations, stakeholders and members of the public made the following criticisms of the timing of some of the recommendations expressed in the Draft Final Report:

- the gas industry stated that the term "*production licence*" was ambiguous because it could be interpreted as either a reference to the granting of a form of petroleum tenure under Pt 2 Div 4 of the Petroleum Act, or a reference to an authorisation to proceed with commercial development;¹
- the community and some environmental groups expressed the view that use of the term "*production licence*" as a trigger for the implementation of some recommendations was inappropriate because it enabled drilling and hydraulic fracturing for onshore shale gas to occur on exploration permits in the absence of any substantive regulatory reforms or key baseline studies having been completed, and consequently, the risks associated with any onshore shale gas development would not be properly mitigated;² and
- various stakeholders commented on a general lack of detail in respect of when many of the recommendations were to be implemented.

¹ Origin submission 544, p 5; Origin submission 1248, p 23.

² NLC submission 647, p 28; EDO submission 635, p 2; ECNT submission 1177, p 2.

In light of these comments, the Panel has endeavoured in this Report to clarify when the recommendations must be implemented. The Panel has distinguished between the recommendations that are designed to address the risks associated with exploratory drilling and hydraulic fracturing for onshore shale gas (**exploration activities**) and the recommendations that are designed to address the risks associated with larger-scale development involving the drilling and hydraulic fracturing of shale gas wells on production licences for the purpose of commercial production (**production activities**).

16.3.1 Key recommendations to be implemented before any further exploration approvals are granted

The Panel's view is that some risks associated with drilling and hydraulic fracturing must be mitigated immediately, that is to say, before any further drilling or hydraulic fracturing takes place in the NT. This is to address some of the community's concerns that if the Government lifts the moratorium, clearing, drilling and hydraulic fracturing for onshore shale gas could happen in the absence of any regulatory reform.

Under the current law, exploration activities cannot happen on an exploration permit unless a gas company has a granted exploration permit. Of itself, however, an exploration permit does not give a gas company the right to undertake an exploration activity. In addition to the exploration permit, the gas company must also have all necessary operational approvals under the Schedule and an environmental approval (that is, an EMP granted) under the Petroleum Environment Regulations (together, **exploration approvals**) (see Section 14.7). Only when all of the exploration approvals have been granted can a gas company proceed with exploration activities.

The key recommendations that must, in the Panel's opinion, be implemented before any further exploration approvals are granted to carry out exploration activities on an exploration permit are listed in **Table 16.1** below.

Table 16.1: Key recommendations that must be implemented prior to any further exploration approvals being granted.

Recommendation	Description
5.1	Development and implementation of a code of practice for the decommissioning of onshore shale gas wells.
5.3	Development and implementation of a code of practice to ensure the integrity of onshore shale gas wells.
5.4	Well integrity management systems and plans mandated for all onshore shale gas wells to be hydraulically fractured.
5.5 and 7.12	Development of a wastewater management framework, including an auditable system for tracking movements of wastewater.
7.1	Gas companies must have a water extraction licence under the Water Act to extract water for hydraulic fracturing.
7.6	Prohibition on the use of surface water for hydraulic fracturing.
7.8	Prohibition on the installation of groundwater extraction bores to supply water for hydraulic fracturing within 1 km of an existing or proposed domestic or stock water supply bore.
7.9	Prohibition on the reinjection of wastewater into deep aquifers and conventional reservoirs.
7.10	Mandatory disclosure of all chemicals (including metals, salts and NORMs) in hydraulic fracturing fluids, flowback and produced water.
7.11 and 7.13	Petroleum wells be constructed to at least Category 9 or equivalent. Prohibition on petroleum wells being drilled within 1 km of an existing or proposed groundwater supply bore. Groundwater must be monitored using multilevel monitoring bores.
7.17	Prohibition on the discharge of treated or untreated wastewater into waterways.
8.2	Completion of a baseline weed assessment in all areas of the exploration permit accessed by a gas company.
8.3	Gas companies must have a dedicated weeds officer.
8.4	Gas companies must have an approved weed management plan in place.
9.2	Development and implementation of a code of practice for the ongoing monitoring of methane from shale gas wells.
9.3	Monitoring of methane concentrations for a six month period.
9.5 and 9.6	Requirement for ongoing methane monitoring and reporting.
10.2	Prohibition on all exploration and production activity within 2 km of any habitable dwelling.
11.1	Existence of an Authority Certificate.
14.4	'No go zones' declared.
14.15	The community must be given an opportunity to comment upon all draft environmental management plans submitted to the Government for approval.
14.16	Requirement that all reports and notices on environmental incidents are publicly disclosed.
14.18	Enforceable codes of practice be mandated for drilling and hydraulic fracturing activities.
14.19	Cumulative impacts of petroleum and other activities in the region must be considered by a decision-maker.
14.23	Open standing for judicial review of decisions made under the Petroleum Act and Petroleum Environment Regulations.
14.26	A monitoring and compliance strategy must be developed and implemented.
14.27	A whistleblower hotline must be established and any reports to it must be immediately investigated.
14.34	There must be a clear separation between the agencies responsible for environmental and promotional approvals.

16.3.2 The remaining recommendations are to be implemented before any production approvals are granted

The Panel has identified a series of risks associated with the commercial production of any onshore shale gas industry.

The Draft Final Report proposed that some of the measures directed towards mitigating production activity. For example, a SREBA had to be implemented prior to the grant of a “*production licence*”, but the Panel agrees that the use of this term in this context is inappropriate. A production licence is no more than a form of tenure that must be granted to a gas company if a commercial onshore shale gas resource has been found and if the company has complied with the conditions of its exploration permit.³ Of itself, the grant of a production licence does not give a gas company the right to carry out a production activity in respect of onshore shale gas. What is additionally required for a gas company to undertake a production activity is the necessary operational approvals granted under the Schedule and an environmental approval (an EMP) granted under the Petroleum Environment Regulations (see Chapter 14.7) (**production approvals**). No production activity (including clearing, drilling and hydraulic fracturing) can happen without the necessary production approvals.

Unless otherwise indicated in the Report, the remaining recommendations not listed in **Table 16.1**, including a SREBA, are to be implemented prior to the granting of any further production approvals. This is to ensure that the commercial production of any onshore shale gas cannot occur absent these recommendations having been implemented and absent a robust regulatory regime having been enacted.

16.4 Resourcing

Implementation of the recommendations will require substantial and sustained resources, including legal, engineering, and scientific resources. As stated in Chapter 14, the Panel's firm view is that any onshore shale gas industry should be responsible for funding the costs associated with regulating it (**Recommendation 14.4**), including the work required to complete a SREBA.

The expertise and independence provided by GISERA and CSIRO has been used in Queensland and NSW in respect of the CSG industry in those States. This may be an appropriate model for the NT.

The Panel is also aware of available funding from the Australian Government in the area of bioregional assessments warranting further investigation by the Government.

16.5 Development of an implementation framework

The Panel recognises that the timely and transparent implementation of its recommendations represents a significant reform agenda for the Government. Some of the recommendations, most notably a SREBA, will take several years to complete. If the Government lifts the moratorium, an implementation framework must be developed immediately to identify when, how and by whom the recommendations will be implemented, noting that the recommendations in **Table 16.1** must be completed prior to the grant of any further exploration approvals.

The framework must propose appropriate governance arrangements, including the establishment of a centralised, well-resourced, skilled and experienced implementation unit in the Department of the Chief Minister to coordinate the implementation of the reforms.

The recommendations cover a wide range of technical and regulatory issues, and therefore, the implementation unit must have access to specialist resources to ensure that the implementation of each recommendation is carried out effectively and in a timely manner. The need for the Government to recruit people and/or organisations with the appropriate capacity was identified as an issue at community consultations. Expertise in project management, petroleum, hydrological, geological, petroleum, chemical and environmental engineering, resources law and law reform, social impact assessment, cultural anthropology and community engagement will be required.

Strong consideration should be given to seconding resources to and/or from domestic and overseas gas regulators such as, for example, OGIA, NOPSEMA, AER and BCOGC.⁴

Efficient and timely access to all necessary expertise will be critical to successful implementation and reform.

³ Petroleum Act, s 29(3) in Pt 2 Div 4.

⁴ This suggestion came from the BCOGC during the Chair's consultation with that agency.

Recommendation 16.2

That an implementation framework including details of who, when and how each of the recommendations will be implemented, be completed within three months from any lifting of the moratorium.

Recommendation 16.3

That a centralised, well-resourced, experienced and skilled Implementation Unit be established immediately within the Department of Chief Minister to coordinate the development of the implementation framework.

16.6 Establishment of a community, gas industry and business reference group

There must be a mechanism to ensure that the community, gas industry, businesses, and other key stakeholders with an interest in the ecologically sustainable development of any onshore shale gas industry are able to provide input into the development of the Government's implementation framework and to hold the Government to account in relation to implementation of the Panel's recommendations.

It is proposed that a Community and Onshore Shale Gas Industry and Business Reference Group (**Reference Group**) be established comprising representatives from the community, environmental groups, local business, the gas industry, Land Councils and local government. The creation of the Reference Group will assist in establishing trust and confidence in the Government and in the gas industry and facilitate obtaining an SLO. The purpose of the Reference Group will be to:

- provide a medium through which the Government can constructively consult with, provide information to, and obtain feedback from key stakeholders on the implementation framework to ensure that the framework aligns with community and industry expectations; and
- provide a medium through which key stakeholders can communicate their concerns about the implementation framework directly to the Government.

Recommendation 16.4

That a Community and Onshore Shale Gas Industry and Business Reference Group be established to provide feedback to Government on the development of an implementation framework, and its subsequent execution, if the Government lifts the moratorium.