

Submission  
No 17

**INQUIRY INTO THE IMPLEMENTATION OF THE  
RECOMMENDATIONS CONTAINED IN THE NSW CHIEF  
SCIENTIST'S INDEPENDENT REVIEW OF COAL SEAM  
GAS ACTIVITIES IN NEW SOUTH WALES**

**Organisation:** Australian Petroleum Production and Exploration Association  
(APPEA)

**Date Received:** 30 October 2019

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30 October 2019

Parliament of New South Wales  
Legislative Council Portfolio Committee No. 4 - Industry  
Parliament House, Macquarie Street  
Sydney NSW 2000

Dear Sir or Madam,

**RE: Inquiry into the implementation of the recommendations contained in the NSW Chief Scientist's Independent Review of Coal Seam Gas Activities in New South Wales**

The Australian Petroleum Production & Exploration Association (APPEA) is the peak national body representing upstream oil and gas explorers and producers active in Australia. APPEA's member companies account for more than 90 per cent of Australia's petroleum production. Further information about APPEA can be found on our website, at [www.appea.com.au](http://www.appea.com.au).

APPEA welcomes the opportunity to comment on the *inquiry into the implementation of the recommendations of the NSW Chief Scientist's review of coal seam gas activities in New South Wales*. The comments should be read in conjunction with comments from our member companies.

The NSW Chief Scientist, Professor Mary O'Kane, published her final report for the *Independent Review* on 30 September 2014. This report concluded that "*the technical challenges and risks posed by the CSG industry can in general be managed through careful designation of areas appropriate for CSG extraction*" and included [16 recommendations](#) which were accepted by the Government.

The recommendations have been substantively completed and a summary in relation to the status of the implementation of each of the recommendations is provided in this submission. Only two recommendations remain to be fully implemented: recommendation nine relating to insurance; and recommendation four relating to cost recovery from the industry. It is APPEA's view that the NSW regulatory framework has the required mechanisms to ensure that recommendation nine can be fully addressed, and recommendation four when required. As such there are no outstanding recommendations that would preclude further gas developments occurring in New South Wales.

Further, in the five years since the review a number of developments in the science and information underpinning gas development as well as the market in which it operates, provide further impetus to support domestic gas development in NSW. This includes regulatory, scientific and market developments. Further information can be found in our submission at Attachment 1.

The east coast gas market is at an important stage of its development. A continuing failure to unlock new gas supplies will place homes and businesses under increasing and unnecessary price and supply pressure. The most effective way to place downward pressure on prices is to increase investment and supplies. Government actions are needed to address supply tightness and climbing energy costs.



APPEA welcomes the opportunity to further discuss this submission with you. Please feel free to contact APPEA's Director of Government Relations, \_\_\_\_\_ or APPEA's Director of Exploration, \_\_\_\_\_ if you have any queries.

Yours sincerely,

**Keld Knudsen**  
APPEA –Director Exploration

### The status of the implementation of the recommendations and gaps in implementation

The NSW Chief Scientist, Professor Mary O'Kane, presented her report on her *review of coal seam gas activities in NSW* on 30 September 2014. This report included [16 recommendations](#) which were accepted by the Government. We have summarised the implementation of these below.

<p><b>Recommendation 1</b> That Government make clear its intent to establish a world-class regime for extraction of CSG.</p> <p><b>Complete</b></p>	<p>The NSW Gas Plan was released on 13 November 2014. The plan is a public statement of intent to deliver a high performing industry, with a clear and improved regulatory framework that is rigorously enforced.<sup>1</sup></p> <p>Implementation of the plan has addressed specific factors as outlined in the recommendation. This includes:</p> <ul style="list-style-type: none"> <li>• The Environment Protection Agency's Compliance Policy<sup>2</sup> provides a rigorous approach to compliance and enforcement.</li> <li>• The 'Guideline for community consultation requirements for exploration'<sup>3</sup> published in 2016 sets clear, enforceable expectations for industry to work closely and continuously with the community about its exploration activities.</li> <li>• Santos has also signed the Agreed Principles of Land Access<sup>4</sup> which are based on the values of respect, integrity and trust. Other signatories to the agreed principles are the AGL Energy, Cotton Australia, Country Women's Association, Dairy Connect, NSW Farmers Association and NSW Irrigators Council.</li> <li>• The <i>Petroleum (Onshore) Act 1991</i> has been amended to streamline titles administration and ensure rigorous compliance and enforcement processes are in place.</li> <li>• The Independent Pricing and Regulatory Tribunal (IPART) completed a review of landholder compensation for gas exploration and production in 2015.</li> <li>• APPEA notes that our Member companies often implement a compensation framework consistent with the recommendations of this review and publishes details of our approach online.<sup>5</sup></li> </ul>
<p><b>Recommendation 2</b> Clear and open communication on CSG matters (publication of approvals etc).</p> <p><b>Complete</b></p>	<p>The NSW Gas Plan provides a clear commitment to open communication.</p> <p>The NSW regulatory framework provides for a system where all approvals relating to coal seam gas activities are accessible online and relevant management plans are available. The NSW planning portal provides a clear mechanism for accessing advice and information on projects.<sup>6</sup></p>

<sup>1</sup> NSW Government's Gas Plan [www.resourcesandenergy.nsw.gov.au/\\_data/assets/pdf\\_file/0005/534830/NSW-Gas-Plan.pdf](http://www.resourcesandenergy.nsw.gov.au/_data/assets/pdf_file/0005/534830/NSW-Gas-Plan.pdf)

<sup>2</sup> [www.epa.nsw.gov.au/publications/legislation/epa-compliance-policy-130251](http://www.epa.nsw.gov.au/publications/legislation/epa-compliance-policy-130251)

<sup>3</sup> [www.resourcesandgeoscience.nsw.gov.au/\\_data/assets/pdf\\_file/0004/476239/Guideline-for-community-consultation-requirements-for-exploration.pdf](http://www.resourcesandgeoscience.nsw.gov.au/_data/assets/pdf_file/0004/476239/Guideline-for-community-consultation-requirements-for-exploration.pdf)

<sup>4</sup> [narrabrigasproject.com.au/uploads/2014/08/Agreed-principles-of-land-access.pdf](http://narrabrigasproject.com.au/uploads/2014/08/Agreed-principles-of-land-access.pdf)

<sup>5</sup> [narrabrigasproject.com.au/uploads/2018/02/Fact\\_sheet-Working\\_with\\_landholders\\_web.pdf](http://narrabrigasproject.com.au/uploads/2018/02/Fact_sheet-Working_with_landholders_web.pdf)

<sup>6</sup> NSW Planning Portal <https://www.planningportal.nsw.gov.au/major-projects/project/10716>

	<p>In 2017, the Government developed a portal for Sharing and Enabling Environmental Data (SEED) as a central location to find data about the environment. SEED contains publicly accessible land, air and water data from NSW Government agencies, and will grow over time as more and different types of environmental data are added.</p> <p>The portal and process provide information about approval processes publicly. The process publishes all relevant approval requirements, and decisions and responses.</p>
<p><b>Recommendation 3</b> Investigation of practical measures for strengthened protections for land holders.</p> <p><b>Complete</b></p>	<p>The NSW regime requires gas companies to negotiate a land access arrangement with landholders at both exploration and production stages and make compensation a mandatory component of the negotiation. Legislation that implements the recommendations made in the Walker Review into Land Access Arbitration was passed by NSW Parliament in October 2015. The legislation provides that explorers must pay the reasonable costs of landholders of the mediation and arbitration process up to the amounts set out in an Order made by the Minister.</p> <p>In 2016 the Independent Pricing and Regulatory Tribunal was commissioned to benchmark compensation rates annually to provide a guide for landholders. This review provided a range of details on landholder compensation for gas exploration and production.</p> <p>These agreements have been successful in Queensland where over 4,700 land access agreements negotiated. Payments made through these agreements have provided over \$500 Million in payments to landholders over the last 6 years. Importantly these payments are not dependent on seasons or weather.<sup>7</sup></p>
<p><b>Recommendation 4 – Cost recovery</b></p> <p><b>In progress.</b></p>	<p>This work is being led by the Department of Planning, Industry and Environment (DPIE) with input from the relevant agencies. APPEA expects that a report will be submitted to Government this financial year.</p>
<p><b>Recommendation 5 –</b> Designate areas in which activity can occur.</p> <p><b>Complete</b></p>	<p>Legislation was passed by NSW Parliament in October 2015 to give the Government greater strategic control over release of areas for exploration in NSW. The NSW Government also extinguished a number of applications under the <i>Petroleum (Onshore) Amendment (NSW Gas Plan) Bill 2014</i> and modified existing PELs to remove areas that have been granted over National Parks.</p> <p>At the same time the Government established a buy-back of PELs offer for titleholders across the state resulting in the voluntary surrender of 16 PELs.</p>

<sup>7</sup> Gasfields Commission – Shared Landscapes Page 49 <https://gasfieldscommissionqld.org.au/shared-landscapes>

	<p>The New South Wales Government significantly expanded the coal seam gas (CSG) exclusion zones and strategic agricultural land areas. These changes, which were made via amendments to State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (Mining SEPP), affect mining and CSG exploration and development in New South Wales in the following ways:</p> <ol style="list-style-type: none"> <li>1. approximately 95 percent of New South Wales dwellings covered by existing petroleum exploration licences are now off limits for CSG activities;</li> <li>2. additional land designated for future residential growth, "rural village" land, a 2km buffer zone around that land, and critical industry cluster (CIC) land (which currently covers equine and viticulture industries), is also off-limits for CSG activities; and</li> <li>3. mining and CSG proposals in more areas of land across NSW will need to go through the gateway planning process before seeking planning approval.</li> </ol> <p>Prior to new acreage being released in NSW (see point 3 above) the strategic release framework requires:</p> <ul style="list-style-type: none"> <li>• upfront consideration of environmental, social and economic factors, including community consultation, in addition to an assessment of the resource;</li> <li>• An independently chaired Advisory Body oversees the process and makes recommendations to the Minister;</li> <li>• Competitive application and auction process and rigorous assessment to determine the successful applicant;</li> <li>• Cabinet endorsement at key steps.</li> </ul>
<p><b>Recommendation 6 –</b> Single Act for all onshore subsurface resources (excluding water) in the State</p> <p><b>Complete</b></p>	<p>Legislative amendments to harmonise <i>the Mining Act 1992</i> and the <i>Petroleum (Onshore) Act 1991</i> were made in 2015 as an action under the NSW Gas Plan.</p> <p>These amendments aligned titles administration and compliance and enforcement processes. The government will continue to identify opportunities to further harmonise the regulatory frameworks for all onshore subsurface resources in NSW where required.</p>
<p><b>Recommendation 7 –</b> Separate allocation of rights from regulatory activities.</p> <p><b>Complete</b></p>	<p>The EPA commenced as lead regulator for compliance and enforcement of all conditions relating to gas (with exception of work health and safety) on 1 July 2015.</p> <p>Legislation to support the EPA's new role was passed by NSW Parliament in October 2015.</p>
<p><b>Recommendation 8 –</b> Targeted and outcome-focused regulatory system.</p> <p><b>Complete</b></p>	<p>In response to this recommendation, the NSW government reviewed all codes of practice and conditions used to regulate the onshore petroleum industry. A series of reforms followed including the introduction of codes of practice for environmental management, produced water, rehabilitation, drilling and community consultation.</p>

	<p>Minimum standards and a Merit Assessment Procedure have also been introduced, to strengthen the allocation of rights to resources by the state.</p> <p>The Codes of Practice outline mandatory requirements for explorers and provide clear standards to enable industry to introduce new technical innovations to meet regulatory requirements. The 2015 legislative reforms to harmonise the <i>Mining Act 1992</i> and the <i>Petroleum (Onshore) Act 1991</i> also included a broad range of compliance and enforcement tools to combat non-compliance.</p>
<p><b>Recommendation 9 – Insurance.</b></p> <p><b>Ongoing</b></p>	<p>APPEA understands that the NSW Environment Protection Authority is continuing work to ensure a comprehensive system to provide financial protections to cover potential coal seam gas related environmental risk is in place.</p> <p>APPEA and our member companies are committed to minimising any impacts to the environment from activities. In addition to proactive measures taken by our members, the NSW government also holds a bank guarantee to cover any remediation. The bank guarantee amount is determined by the State in order to guarantee it is sufficient to cover any remediation that could be required.</p>
<p><b>Recommendation 10 – Data repository</b></p> <p><b>Complete</b></p>	<p>In 2017, the Government developed a portal for Sharing and Enabling Environmental Data (SEED) as a central location to find data about the environment. SEED contains publicly accessible land, air and water data from NSW Government agencies, and will grow over time Energy and Environment 29 as more and different types of environmental data are added. SEED can be found online at <a href="http://www.seed.nsw.gov.au">www.seed.nsw.gov.au</a></p>
<p><b>Recommendation 11 – Central Risk Management Prediction Tool</b></p> <p><b>Complete</b></p>	<p>There are a number of Risk Management and Prediction Tools being used by agencies in NSW to assess proposals, analyse risk and inform compliance activities. These include risk-based codes of practices, risk-based licencing and planning assessment processes.</p>
<p><b>Recommendation 12 – independent expert body.</b></p> <p><b>Complete</b></p>	<p>This recommendation has been achieved by using the expertise of the existing Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC). The IESC is an independent and statutory committee of leading scientists that independently advises government regulators on the impacts that coal seam gas development may have on Australia’s waters resources.</p> <p>The NSW Government contributed \$1.5 million in funding to the CSIRO Gas Industry Social and Environmental Research Alliance (GISERA) for independent scientific research into NSWs gas industry. GISERA’s NSW research program is overseen by a Research Advisory Committee with membership from Government, industry and the community, ensuring that projects are conducted in a balanced way. This structure protects the independence of GISERA’s research.</p>

<p><b>Recommendation 13 –</b> Formal mechanism / steps regarding water monitoring and independent verification.</p> <p><b>Complete</b></p>	<p>The Review of Environmental Factors (REFs) and/or Environmental Impact Statement (EIS) process comprehensively considers potential impacts to groundwater resources in the mining assessments process.</p> <p>Data collection is being addressed through the NSW Government’s Water Monitoring Framework (WMF) and Water Monitoring Strategy. This data is reviewed by the IESC.</p>
<p><b>recommendation 14 –</b> Ensure that all personnel are qualified.</p> <p><b>Complete</b></p>	<p>Requirements for qualifications for specific safety-critical roles and training for all workers at petroleum sites were implemented on 1 February 2016 through an amendment to the <i>Work Health and Safety (Mines and Petroleum Sites) Regulation 2014</i> (Clauses 103, 104, 105 and schedule 10A).</p> <p>The amendments enable competencies for certain safety critical petroleum roles are prescribed under the <i>Work Health and Safety (Mines) Regulation</i> through the designation of statutory functions.</p> <p>In addition, new minimum standards for resources exploration introduced in July 2015 require applicants to demonstrate (with evidence) the appropriate technical capabilities to undertake their proposed work program. In addition to the legislative work, a Competency Guideline for the petroleum drilling industry to specify minimum qualifications/competencies to improve safety and environmental outcomes has also been published.</p>
<p><b>Recommendation 15 –</b> Plan to manage legacy matters (abandoned wells, etc)</p> <p><b>Complete</b></p>	<p>In 2014, the Legacy Mines Program was expanded to consider legacy petroleum wells. Projects are prioritised based on safety and environmental risk.</p> <p>Wells that have reached the end of their functional life must be plugged and decommissioned in accordance with the NSW Code of Practice for Coal Seam Gas – Well Integrity<sup>8</sup> with records for each well provided to the NSW Government.</p>
<p><b>Recommendation 16 –</b> Consider whether there needs to be alignment of legislation for extraction of methane from coal and gas production.</p> <p><b>Complete</b></p>	<p>APPEA understands the government has considered the need for further alignment of legislation and no changes are currently proposed.</p>

<sup>8</sup> [www.resourcesandenergy.nsw.gov.au/\\_data/assets/pdf\\_file/0006/516174/Code-of-Practice-for-Coal-Seam-Gas-Well-Integrity.PDF](http://www.resourcesandenergy.nsw.gov.au/_data/assets/pdf_file/0006/516174/Code-of-Practice-for-Coal-Seam-Gas-Well-Integrity.PDF)



## **Whether any other inquiry findings or other major reports relating to unconventional gas in Australia or the east coast gas market published since the release of the Chief Scientists are relevant to the suitability or effectiveness of the Chief Scientists recommendations**

### East Coast Gas Market and supply

The east coast gas market is at an important stage of its development. A continuing failure to unlock new gas supplies will place homes and businesses under increasing and unnecessary price and supply pressure. The most effective way to place downward pressure on prices is to increase investment and supplies. Government actions are needed to address supply tightness and climbing energy costs.

Over the previous two years, the industry has committed to developing and ensuring there is no shortfall in domestic gas supply and has been successful in making natural gas available to the domestic customers at prices lower than the peak of 2017. The release of the Australian Competition and Consumer Commission's (ACCC) latest Gas Market Inquiry 2017-2020 report confirms that east coast gas prices remain below 2017 peaks, due largely to new supply entering the market.<sup>9</sup>

The past year has seen significant announcements from Arrow Energy, Shell Australia, Senex, Cooper Energy, Strike Energy, GLNG, Australia Pacific LNG, Origin Energy, Santos, ExxonMobil and BHP to bring on new gas supply.

The ACCC report confirms, yet again, that customers in New South Wales and Victoria are paying more than necessary for their gas. This is at least in part as a result of state government restrictions on developing local gas resources. Importing gas from Queensland adds \$2-\$4/GJ to retail prices in the southern states. As the ACCC noted in releasing the report:

*“The most material pricing benefits for domestic gas users are likely to come if additional lower-cost gas is produced in the Southern States.”*

APPEA continues to urge state governments to adopt policies that consider and manage the risks of individual gas development projects, rather than implementing blanket moratoria and regulatory restrictions. Governments wanting lower gas prices, more investment and more diversity of supply have the solution to hand – follow the Northern Territory's recent example and support the safe, responsible development of the resources within their jurisdiction.

Developing new reserves in the present market conditions can be challenging. Commodity prices remain relatively subdued. Onshore exploration is an expensive, high-risk activity in a challenging market. It is also costly to develop gas resources. Nevertheless, with the right policy settings, the industry can play its part in securing competitively priced energy supplies.

Until all states support a co-operative COAG agenda to remove regulatory and other barriers to new gas supply, conditions will remain challenged. The stakes for Australia could hardly be greater; a least-cost transition to cleaner energy and energy security for local industry or continuing inconsistent policies that destroy jobs, push up prices and perpetuate higher emissions.

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<sup>9</sup> ACCC, [Gas inquiry December 2018 interim report](#), 18 December 2018.

**Links:**

- ACCC (22 August 2019). Gas inquiry July 2019 interim report [www.accc.gov.au/publications/serial-publications/gas-inquiry-2017-2020/gas-inquiry-july-2019-interim-report](http://www.accc.gov.au/publications/serial-publications/gas-inquiry-2017-2020/gas-inquiry-july-2019-interim-report)
- Australian Energy Market Operator (March 2019). Gas Statement of Opportunities [www.aemo.com.au/-/media/Files/Gas/National\\_Planning\\_and\\_Forecasting/GSOO/2019/2019-GSOO-report.pdf](http://www.aemo.com.au/-/media/Files/Gas/National_Planning_and_Forecasting/GSOO/2019/2019-GSOO-report.pdf)
- Independent Review into the Future Security of the National Electricity Market (Finkel Review) (June 2017). *Independent Review into the Future Security of the National Electricity Market – Blueprint for the Future* [www.energy.gov.au/publications/independent-review-future-security-national-electricity-market-blueprint-future](http://www.energy.gov.au/publications/independent-review-future-security-national-electricity-market-blueprint-future).

**CSIRO's Gas Industry Social and Environmental Research Alliance (GISERA)**

The CSIRO's Gas Industry Social and Environmental Research Alliance (GISERA) is a collaboration between CSIRO, Commonwealth and state governments and industry established to undertake publicly-reported independent research. CSIRO's GISERA aims to:

- Carry out research and provide information for the benefit of all Australian communities in onshore gas regions and industry.
- Inform governments and policy-makers of key research outcomes.

GISERA expanded its social and environmental research to include NSW in 2015. Work has been initially focused around the Macarthur and Narrabri regions of NSW.<sup>10</sup> In addition to specific NSW work, there is a range of research undertaken in other jurisdictions (primarily Queensland) that significantly advances our understanding of coal seam gas and unconventional resources. The work of GISERA directly relates to the recommendations of the Chief Scientist report and should be considered in this review. This work covers areas including:

- Greenhouse gas and air quality;
- Social and economic impacts and opportunities;
- Surface and groundwater; and
- Health impacts.

GISERA research in NSW is overseen by an independent advisory body who are responsible for reviewing and approving research projects that address community concerns, issues and potential impacts. The members of the advisory council consist of 45% community, 11% industry, 22% CSIRO and 22% Government stakeholders. Dr Damian Barrett, GISERA Director (CSIRO), is the Chair and has no voting rights. Decisions of the of the advisory council are by simple majority and all decisions and discussion are publicly available.

**Links:**

- GISERA NSW Report and research: <https://gisera.csiro.au/states/nsw/>

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<sup>10</sup> New South Wales coal seam gas research projects: Update summary [https://gisera.csiro.au/wp-content/uploads/2017/11/17-00402\\_GISERA\\_NSWUpdateSummary4ppFactsheet\\_WEB\\_171103.pdf](https://gisera.csiro.au/wp-content/uploads/2017/11/17-00402_GISERA_NSWUpdateSummary4ppFactsheet_WEB_171103.pdf)

### Independent Expert Scientific Committee

The Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development provides advice to the Australian Government Environment Minister on priorities for research to improve understanding of the impacts of coal seam gas and large coal mining developments on water resources.

The committee is made up of leading scientists from a range of disciplines including geology, hydrogeology, hydrology, ecology and ecotoxicology.

Between 2013 and 2017 the Australian Government invested \$19 million into research guided by the priorities the Committee recommended in 2013. The aim of the research program was to fill identified knowledge gaps and improve the scientific understanding. The program has advanced scientific understanding of the impacts of coal resource development in Australia on water flow, surface and groundwater connectivity, water quality changes, ecosystem impacts and cumulative impacts.

These reports are of relevance to the inquiry.

### Geological Bioregional Assessment Program

The Bioregional Assessment Program looked at the impacts of coal seam gas and large coal mining developments on water resources and water-dependent assets over six bioregions.

The bioregions include areas across New South Wales (and Queensland, Victoria and South Australia). These states are the four signatory states under the National Partnership Agreement on Coal Seam Gas and Large Coal Mining Development. These bioregional assessments:

- assess potential impacts, particularly regional scale and cumulative impacts, from coal seam gas and open-cut and underground coal mining developments.
- are developed by independent scientific experts in the fields of ecology, hydrology, hydrogeology, geology, informatics (computer information systems) and risk analysis, in consultation with state government agencies, catchment management authorities, local governments, and industry groups and their members.
- are made up of a number of products including data, lists and descriptions of assets, conceptual models, and analyses of possible impacts of CSG and coal mining developments on water resources. All of these products are available to the public.

Bioregional assessments from both programs will inform Commonwealth and state government decisions in regulating unconventional gas and coal mining operations. Development proponents can use the information in writing environmental impact statements for coal seam gas and coal mining proposals.

Bioregional assessments will also be used to identify data and knowledge gaps where further information is required before development applications proceed. These assessments significantly add to the knowledge and understanding of the region and are relevant to the inquiry.

**Links:**

- Further information, including copies of the research, is available at [www.environment.gov.au/water/coal-and-coal-seam-gas/science-research](http://www.environment.gov.au/water/coal-and-coal-seam-gas/science-research)
- Bioregion data registers [www.bioregionalassessments.gov.au/metadata-and-datasets-program](http://www.bioregionalassessments.gov.au/metadata-and-datasets-program)

**Northern Territory and Western Australian inquiries into hydraulic fracturing**

The *Independent Scientific Inquiry into Hydraulic Fracturing of Onshore Unconventional Reservoirs in the Northern Territory* handed down its Final Report to the Northern Territory Government on Tuesday 27 March 2018. On 12 September 2018, the Independent Scientific Panel Inquiry into Hydraulic Fracture Stimulation in Western Australia handed its Report to the Western Australian Government.

Both of these inquiries provided detailed analysis on relevant issues, such as hydraulic fracturing, well integrity and land management. Each concluded that the risk to people and the environment can be appropriately managed.

**Links:**

- Scientific inquiry into hydraulic fracturing of onshore unconventional reservoirs in the Northern Territory <https://frackinginquiry.nt.gov.au>
- Independent Scientific Panel Inquiry into Hydraulic Fracture Stimulation in Western Australia <https://frackinginquiry.wa.gov.au/report-and-papers>