

NSW GAS PLAN

Government Response to the Final Report of the Independent Review of Coal Seam Gas Activities in NSW by the NSW Chief Scientist and Engineer

Government Response

The NSW Government welcomes the Chief Scientist and Engineer's Final Report of the Independent Review of Coal Seam Gas Activities in NSW. This report brings together the extensive body of work undertaken during the review and makes a series of recommendations which provide a roadmap for the development of a world class gas industry that is safe and sustainable.

Recommendation 1

That Government make clear its intent to establish a world class regime for extraction of Coal Seam Gas (CSG). This could be articulated in a clear public statement that covers:

- » The rationale/need for CSG extraction
- » A clear signal to industry that high performance is mandatory, compliance will be rigorously enforced and transgressions punished
- » A fair system for managing land access and compensation
- » A mechanism for developing a clear, easy-to-navigate legislative and regulatory framework that evolves over time to incorporate new technology developments
- » Mechanisms for working closely and continuously with the community, industry, and research organisations on this issue.

Government response: **Support**

The Government is committed to making sure that any gas extraction in NSW is undertaken under a world-class regime. The NSW Gas Plan is the Government's public statement of intent to deliver a high performing industry, with a clearer and improved regulatory framework that is rigorously enforced. It also outlines the Government's support for strong engagement with all stakeholders and a fair system for managing land access and compensation for individuals and communities.

Recommendation 2

That Government ensure clear and open communication on CSG matters is maintained at all times. This includes:

- » Simplicity and clarity in legislative and regulatory requirements
- » Ensuring openness about CSG processes in line with an open access approach; publishing all relevant approval requirements, decisions and responses, and compliance and enforcement outcomes on appropriate government websites and making CSG data from companies, Government and research organisations available through a centralised Government data repository
- » Measurable outcomes to track performance against commitments to reform.

Government response: **Support**

Clear and open communication is vital to ensure constructive, informed and collaborative discussion on gas activities into the future. The Government intends to play its part by reforming legislative and regulatory requirements and using an open access approach to information.

We are currently scoping a whole-of-government environmental data portal, which will become the centrepiece of a new and open approach to data on gas activities. A community website will also be established to allow the community to interact with information on all titles and applications for gas and other resources titles through a state wide map.

Recommendation 3

That Government investigate as a priority a range of practical measures for implementation (or extension of current measures) to allow affected communities to have strengthened protections and benefits including fair and appropriate:

- » Land access arrangements, including land valuation and compensation for landholders
- » Compensation for other local residents impacted (above threshold levels) by extraction activities
- » Funding (derived from the fees and levies paid by CSG companies) for local councils to enable them to fund, in a transparent manner, infrastructure and repairs required as a consequence of the CSG industry.

Government response: **Support**

The Government's Gas Plan outlines the practical measures it will take to strengthen protections and share benefits. The Government will require 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. We will commission the Independent Pricing and Regulatory Tribunal to benchmark compensation rates annually to provide a guide for landholders. The Tribunal will be asked to consider both fixed rate compensation and compensation that takes into account the economic benefits of exploration and production over the expected life of the wells.

The Government will also establish a Community Benefits Fund, with voluntary contributions from both gas companies and the Government, to fund local projects in communities where gas exploration and production occurs. The Land and Water Commissioner will continue to provide support to local councils, landholders and members of the community on land access issues.

Government Response

Recommendation 4

That the full cost to Government of the regulation and support of the CSG industry be covered by the fees, levies, royalties and taxes paid by industry, and an annual statement be made by Government on this matter as part of the Budget process.

Government response: **Support**

The Government agrees that regulation of the gas industry should be undertaken on a full cost recovery basis, and will aim for this over time. We will include an annual statement on this matter as part of the Budget process.

Recommendation 5

That Government use its planning powers and capability to designate those areas of the State in which CSG activity is permitted to occur, drawing on appropriate external expertise as necessary.

Government response: **Support**

The NSW Gas Plan outlines the strategic approach the Government intends to take in designating areas of NSW in which gas activity will be permitted to occur. We will ensure that a thorough assessment of economic, environmental and social factors has been undertaken before the allocation of any new exploration titles.

Government Response

Recommendation 6

That Government move to a single Act for all onshore subsurface resources (excluding water) in the State, constructed to allow for updating as technology advances. This will require a review of all major Acts applying to the resources sector.

Government response: **Support**

There is merit in a fair, consistent and transparent approach to the State's management of all its subsurface resources. The Government will work with industry and the broader community to consider the best legislative approach to make this happen. We expect this will take time, and will consult broadly with the NSW community to get this right.

Recommendation 7

That Government separate the process for allocation of rights to exploit subsurface resources (including water) from the regulation of the activities required to give effect to that exploitation (i.e. exploration and production activities), and that it establish a single independent regulator. The regulator will require high levels of scientific and engineering expertise, including geological and geotechnical ability, environmental and water knowledge and information, and ICT capability including data, monitoring and modelling expertise; and will be required to consult – and publish details of its consultations – with other arms of Government and external agencies, as necessary. The regulator will also require appropriate compliance monitoring and enforcement capability.

Government response: **Support**

The Government supports the separation of the process of the allocation of petroleum rights from the regulation of petroleum activities. As an immediate action under the Gas Plan, the Environment Protection Authority (EPA) will become the lead regulator for compliance and enforcement of conditions of approval for gas activities, including consent conditions and activity approvals. Over time, NSW will move to establish a single Act for all onshore subsurface resources with a single independent regulator.

Recommendation 8

That Government move towards a target and outcomes focused regulatory system with three key elements:

- » Regularly reviewed environmental impact and safety targets optimised to encourage uptake of new technologies and innovation
- » Appropriate and proportionate penalties for non-compliance
- » Automatic monitoring processes that can provide data (sent to and held in the openly accessible Whole-of-Environment Data Repository) which will help detect cumulative impacts at project, regional and sedimentary basin scales which can be used to inform the targets and the planning process.

Government response: **Support**

The Government supports the use of targeted and outcomes focused regulation to establish clear standards and enable industry to have flexibility and be able to introduce new technical innovations in choosing how it will meet the requirements of the regulation. The Government will work with the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development and other scientific and technical experts in building an understanding of cumulative impacts, and will make monitoring data accessible through the whole-of-government environmental data portal.

Recommendation 9

That Government consider a robust and comprehensive policy of appropriate insurance and environmental risk coverage of the CSG industry to ensure financial protection short and long term. Government should examine the potential adoption of a three-layered policy of security deposits, enhanced insurance coverage, and an environmental rehabilitation fund.

Government response: **Support**

The NSW Government agrees with the need for a comprehensive system to provide financial protections to cover potential coal seam gas related environmental risk. While the Petroleum (Onshore) Act 1991 already includes a comprehensive security fund framework, we will further consider whether there are additional benefits that could be gained from adoption of a three layered policy of security deposits, industry insurance coverage and potential environmental rehabilitation funds.

Recommendation 10

That Government commission the design and establishment of a Whole-of-Environment data repository for all State environment data including all data collected according to legislative and regulatory requirements associated with water management, gas extraction, mining, manufacturing, and chemical processing activities. This repository, as a minimum, would have the characteristics that it:

- » Is accessible by all under open data provisions
- » Has excellent curatorial and search systems
- » Houses long-term data sets collected as part of compliance activities
- » Can accept citizen data input
- » Can be searched in real time
- » Is spatially enabled
- » Is able to hold data in many diverse formats including text, graphics, sound, photographs, video, satellite, mapping, electronic monitoring data, etc, with appropriate metadata
- » Is the repository of all research results pertaining to environmental matters in NSW along with full details of the related experimental design and any resulting scientific publications and comments
- » Is the repository of historical resources data with appropriate metadata.
- » Various legislative amendments or other incentives will be needed to direct all environment data to the Repository.

Government response: **Support**

The NSW Government is currently scoping a whole-of-government environmental data portal which will become the centrepiece of a new and open approach to data on gas activities. The portal will provide a consolidated source of information for stakeholders on the impacts of resource development, using data collected by NSW regulators, private companies, research and academic institutions and the public.

We are seeking to provide this service for the whole State so that communities, farmers, industry and Government have open, transparent access to information. Furthermore, we are driving these initiatives on a national level. The Council of Australian Governments Energy Council has agreed to consider options for a national environmental data repository.

Recommendation 11

That Government develop a centralised Risk Management and Prediction Tool for extractive industries in NSW. This would include a risk register, a database of event histories, and an archive of Trigger Action Response Plans. The tool would be updated annually based on Government and company reporting and would include information on risk management and control approaches and draw on data from the Whole-of-Environment Data Repository for the State. The risk tool would be reviewed and commented on by relevant expert and regulatory bodies. The risk tool would be used to assist with:

- » Assessing new proposals
- » Assessing compliance
- » Improving prediction capability for consequences of incidents in risk assessments
- » Improving prediction capability of risk likelihoods
- » Informing project design amendments to decrease risk levels (such as undertaken in the Dam Safety Committee)
- » Informing the calculation of cumulative impacts flagging issues or risks that require a higher level of regulatory protection such as inclusion in legislation.

Government response: **Support**

The Government will investigate risk based approaches and tools to assist with assessing proposals, informing compliance activities and analysing risks.

Recommendation 12

That Government establish a standing expert advisory body on CSG (possibly extended to all the extractive industries). This body should comprise experts from relevant disciplines, particularly ICT and the earth and environmental sciences and engineering, but drawing as needed on expertise from the biological sciences, medicine and the social sciences. The prime functions of this expert body would be to advise Government:

- » On the overall impact of CSG in NSW through a published Annual Statement which would draw on a detailed analysis of the data held in the Whole-of-Environment Data Repository to assess impacts, particularly cumulative impacts, at project, regional and sedimentary basin scales
- » On processes for characterising and modelling the sedimentary basins of NSW
- » On updating and refining the Risk Management and Prediction Tool
- » On the implications of CSG impacts in NSW for planning where CSG activity is permitted to occur in the State
- » On new science and technology developments relevant to managing CSG and when and whether these developments are sufficiently mature to be incorporated into its legislative and regulatory system
- » On specific research that needs to be commissioned regarding CSG matters
- » On how best to work with research and public sector bodies across Australia and internationally and with the private sector on joint research and harmonised approaches to data collection, modelling and scale issues such as subsidence
- » On whether or not other unconventional gas extraction (shale gas, tight gas) industries should be allowed to proceed in NSW and, if so, under what conditions.

Government response: **Support**

Given the pace of science and technology changes, NSW Government agrees there is need for expert advice on gas activities to ensure that our legislative and regulatory system is informed about the potential impacts associated with gas development, and that decisions are based on the best available science. The Government will consider the best way to harness this advice and notes that it will need to work closely with the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development, established in 2012 by the Australian Government, which undertakes a similar function.

Recommendation 13

That Government establish a formal mechanism consisting of five parallel but interacting steps. The five steps are given below.

- » Companies or organisations seeking to mine, extract CSG or irrigate as part of their initial and ongoing approvals processes should, in concert with the regulator, identify impacts to water resources, their pathways, their consequence and their likelihood, as well as the baseline conditions and their risk trigger thresholds before activities start. These analyses and systems should be incorporated in project management plans to meet regulator-agreed targets. Appropriate monitoring and characterisation systems would be developed as part of these project management plans and then installed. The monitors would measure baseline conditions and detect changes to these, as well as providing data on impacts and triggered risk thresholds.
- » Data from the monitors should be deposited (either automatically or in as close to real time as possible) in the State Whole-of-Environment Data Repository by all the extractive industries. Increasingly automated tools to interrogate data in the Repository should be developed, and these used to search data for discontinuities and compliance alerts.
- » As a separate process, the expert advisory body would examine on a frequent basis all data relevant to a region or a sedimentary basin. This data would come from a range of sources (the companies' monitoring data along with triangulation/cross-validation data such as that from satellites, reports from local councils, seismic data, subsidence maps, information from cores, etc). The expert body would use this data review to check for any factors signalling problems in that region and, if any are found, recommend to Government the appropriate action to be taken with regard to the relevant parties.
- » In a parallel process, the Government should commission, construct and maintain a variety of models of each region and in particular one that seeks to address cumulative impacts. These models should feed into the land use planning process and the activity approvals processes, and should assist in target setting for new projects.
- » Government, working with other appropriate Australian governments, should commission formal scientific characterisation of sedimentary basins starting with the East Coast basins, and concentrating initially on integration of groundwater with the geological, geophysical and hydrological context. Viewing these integrated systems in models and in interpretation could be described as a 'Glass Earth' approach to understanding the dynamics of activities and impacts in the basins.

Government response: **Support**

The Government will improve governance and accountability of water data and water management, as well as enhance data monitoring and real time reporting to provide greater confidence to the community about impacts on water from various extractive industries. The NSW Office of Water is using groundwater baseline data from its network of 3,500 monitoring bores to map NSW's underground water resources and how they are used by different industries, including agriculture and mining. This project started with the Gunnedah, Gloucester and Clarence Moreton basin and is now being rolled out across the state. The mapping results are available online and will support Government, industry and the community to quickly identify and respond to pressure on our water resources.

The environmental data portal will provide open access to broader information relevant to gas extraction.

Government Response

Recommendation 14

That Government ensure that all CSG industry personnel, including subcontractors working in operational roles, be subject to ongoing mandatory training and certification requirements. Similarly, public sector staff working in compliance, inspections and audits should be given suitable training and, where appropriate, accreditation.

Government response: **Support**

The Government agrees that all CSG industry personnel should have up to date training and skills. We also agree that the public sector staff who are monitoring the industry need to be suitably trained. We will develop mandatory standards of training to apply to both industry and government staff.

Recommendation 15

That Government develop a plan to manage legacy matters associated with CSG. This would need to cover abandoned wells, past incomplete compliance checking, and the collection of data that was not yet supplied as required under licences and regulations. There will also need to be a formal mechanism to transition existing projects to any new regulatory system.

Government response: **Support**

The Government will develop a plan to manage legacy matters and ensure no new matters are created through revised industry codes of practice and licence conditions.

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Recommendation 16

That Government consider whether there needs to be alignment of legislation and regulation governing extraction of methane as part of coal mining and the application of buffer zones for gas production other than CSG with the relevant legislation and regulation provisions governing CSG production.

Government response: **Support**

The Government will consider this issue in its development of a single onshore resources Act (not including water).