Safeguarding future environmental liabilities from Coal Seam Gas Activities in NSW

February 2020





© 2020 State of NSW and the NSW Environment Protection Authority

With the exception of photographs, the State of NSW and the NSW Environment Protection Authority (EPA) are pleased to allow this material to be reproduced in whole or in part for educational and non-commercial use, provided the meaning is unchanged and its source, publisher and authorship are acknowledged. Specific permission is required for the reproduction of photographs.

All content in this publication is owned by the EPA and is protected by Crown Copyright, unless credited otherwise. It is licensed under the Creative Commons Attribution 4.0 International (CC BY 4.0), subject to the exemptions contained in the licence. The legal code for the licence is available at Creative Commons.

The EPA asserts the right to be attributed as author of the original material in the following manner: © State of New South Wales and the NSW Environment Protection Authority 2020.

Cover photograph: An EPA Officer checking pipeline apparatus, John Spencer/EPA.

Published by:

NSW Environment Protection Authority 4 Parramatta Square, 12 Darcy St, Parramatta NSW 2124 Locked Bag 5022, Parramatta NSW 2124

Phone: +61 2 9995 5000 (switchboard) Phone: 131 555 (NSW only - environment information and publications requests)

Fax: +61 2 9995 5999

TTY users: phone 133 677, then ask for 131 555 Speak and listen users: phone 1300 555 727,

then ask for 131 555

Email: info@epa.nsw.gov.au Website: www.epa.nsw.gov.au

Report pollution and environmental incidents

Environment Line: 131 555 (NSW only) or info@epa.nsw.gov.au See also www.epa.nsw.gov.au

ISBN 978 1 925790 65 8 EPA 2019P1963 February 2020

Overview

The NSW Government is taking action to safeguard against future environmental liabilities that may arise from gas projects in NSW.

We are doing this to protect the NSW community and the environment.

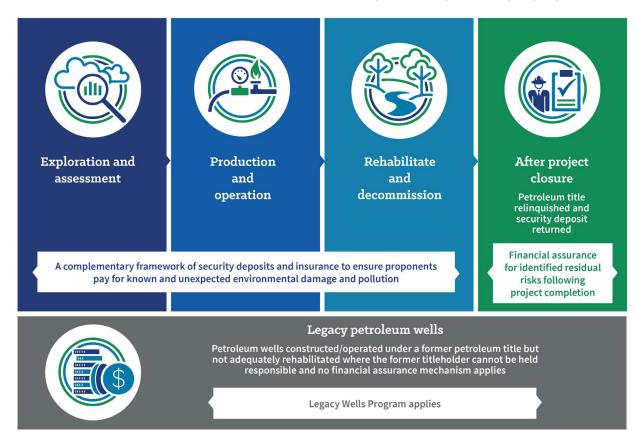
We are making sure that the costs of remedying any environmental impact from the activities of the gas industry are paid by the industry and not by the community.

We are doing this by:

- 1. continuing the existing security deposit scheme to cover the costs of rehabilitation
- 2. requiring gas companies to employ effective risk management strategies throughout the life of a project and provide evidence of

- adequate insurance coverage or alternative financial arrangements to cover the cleanup costs of potential pollution incidents
- 3. assessing potential future environmental liabilities to determine whether a financial assurance is required for residual risks not covered by the rehabilitation security deposit. This will cover environmental liabilities that may arise after rehabilitation activities have been completed and the security deposit is released
- 4. continuing the Government's program for managing abandoned petroleum wells (the Legacy Wells program) which provides an existing framework for strategic management of abandoned petroleum wells.

Together these four actions will apply a complementary framework of financial protections to manage environmental liabilities during the life cycle of a gas project.



Who does this affect and how?

What does this mean for the NSW community?

These actions provide financial protection from gas sector activities in the short and long term.

They implement the 'polluter pays' principle to ensure that the costs of remedying any environmental impact from the activities of the gas industry are paid by the industry and not the community.

What does this mean for gas operators?

Enhanced insurance coverage or sufficient clean up funds

Gas industry operators will now be required to prove their financial arrangements to cover the costs of unexpected potential pollution incidents during the life cycle of the project.

Gas industry operators will be required to provide evidence of adequate insurance coverage or alternative financial arrangements to cover these costs annually and on commencement of new activities. This requirement will be included as a condition of an environment protection licence issued by the EPA under the *Protection of the Environment Operations Act 1997*.

We understand that access to adequate insurance for gas operations is not straightforward in the Australian insurance market with the types of activities and risks that insurance companies will cover. We understand that the market is moving towards being more selective with the types of risk insurance companies will cover and the price of insurance coverage, with high-risk activities, such as fracking, commonly excluded. We understand that the industry relies on provisioning assets to manage these environmental, and reputational, risks.

Operators choosing not to hold relevant insurance will be required to instead prove to the EPA the existence of sufficient potential clean up funds.

Assurances for future environmental liabilities

The EPA will use its existing powers in the *Protection of the Environment Operations*Act 1997 to assess potential future liabilities to determine whether a financial assurance is required for residual risks post-closure that are not covered by the rehabilitation security deposit.

In determining whether to seek financial assurance for potential future environmental liabilities, the EPA will consider the degree of environmental risk, additional remediation work that may be required and the environmental record of the licence holder.

If ongoing residual risks are identified, the management costs of these will be calculated and used to determine the value of any financial assurance secured by the EPA. When a financial assurance is retained for ongoing residual risks, a regular review will be undertaken to determine whether to retain or release the funds.

This assurance covers environmental liabilities that may arise after rehabilitation activities have been completed and the security deposit is released.

Why are we taking action?

Community protection

The risks arising from gas projects are low. Gas projects in NSW are subject to a series of regulatory approvals to identify, determine and condition for environmental impacts under the *Environmental Planning and Assessment Act 1979*, the *Protection of the Environment Operations Act 1997*, the *Petroleum (Onshore) Act 1991* and other legislation.

The NSW Government's regulatory assessment and approval process, combined with the Legacy Wells program, deliver the primary tools to minimise or prevent long-term environmental harm.

However, if gradual onset, longer term environmental damage is found and is directly linked to a decommissioned gas well, the NSW community should be protected from financial liabilities.

These actions also meet the intent of the approach recommended by the NSW Chief Scientist and Engineer to ensure that, where operators are unable to pay, adequate financial protection from gas sector activities are available in both the short and long term.



Officers from the Gas Regulation Branch of the NSW EPA inspect restoration progress. Photo: John Spencer/EPA.

The NSW Chief Scientist and Engineer's recommendation

The NSW Chief Scientist and Engineer's Final Report of the Independent Review of Coal Seam Gas Activities in NSW in September 2014 recommended:

Recommendation 9

That Government consider a robust and comprehensive policy of appropriate insurance and environmental risk coverage of the coal seam gas 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.

The EPA was tasked with considering the Chief Scientist's recommendation.

The EPA is the lead regulator for compliance with, and enforcement of, conditions of approval for gas activities in NSW, including consent conditions and activity approvals issued by other agencies. The EPA considered whether there are additional benefits that could be gained from adopting a three-layered policy of security deposits, industry insurance coverage and potential environmental rehabilitation funds.

What did we consider?

Consultation and research

The EPA considered the current state of the NSW gas sector and consulted with industry operators, insurance providers and NSW Government agencies. The EPA also initiated conversations with environmental and community groups, community representatives and local councils in the formative stage of the project and received a wide range of comments, ideas and concerns.

The EPA considers that NSW has adopted best practice standards and strict regulations governing the construction, operation, maintenance and decommissioning of wells in implementing the recommendations of the NSW Chief Scientist and Engineer's Final Report and the NSW Gas Plan. This has resulted in reduced potential for deteriorating well integrity or ongoing risks associated with plugged and abandoned wells. Where gas wells have been constructed, maintained and decommissioned in accordance with the relevant NSW Codes of Practice, they present a low risk to human health and the environment. Decommissioning greatly reduces potential long-term impacts to both water quantity (for example water flow, pressure and supply) and quality (for example from gas leakage, groundwater and/or surface contamination).



The Gas Regulation Branch of the NSW EPA conducts regular inspections at gas sites throughout NSW. Photo John Spencer/EPA.

Construction of gas wells predating the Codes of Practice may differ from current guidelines. When such wells are decommissioned, the EPA works with licensees to achieve the highest practicable standard within the titleholder's legal obligations. However, although unforeseen residual risks of gas leakage, groundwater and/or surface contamination are low, they may remain. This is particularly if well integrity is compromised in the future. These residual risks potentially may expose the NSW community to environmental and financial liabilities.

The NSW Government is also examining long- term environmental liabilities after a mine has closed, should those liabilities arise. This is in response to recommendations of the NSW Auditor-General (2017) and includes the mechanisms that currently exist through NSW legislation and programs and the need for other measures.

What did we find?

Security deposits

The existing security deposit framework is robust, but it is not used to cover environmental liabilities that may arise after rehabilitation activities have been completed and the security deposit is released. Despite potential residual risks being considered low due to current regulatory and operational practices, future liabilities may still arise; for example, where the integrity of a decommissioned well is compromised. Retaining a further financial assurance is beneficial to safeguard against these potential ongoing residual risks.

Enhanced insurance coverage

The availability of adequate environmental impairment liability for coal seam gas activities in the insurance market is not straightforward. The local Australian insurance market is less willing to provide these products than at the time of the Chief Scientist and Engineer's review. A requirement that allows for alternative financial arrangements (for example, asset provisioning or parent company guarantees) where environmental impairment liability insurance policies are not readily available is recommended.

Environmental rehabilitation fund

Establishing another environmental rehabilitation fund in the NSW gas sector, which currently has only two active gas projects, is not a feasible option. The NSW Government already funds a program to manage legacy petroleum matters. The Legacy Wells program provides an existing framework for strategic management of abandoned petroleum wells that were not adequately rehabilitated, where the former titleholder cannot be held responsible, and no financial assurance mechanism applies. It is based on a multi-stage process to assess and prioritise legacy petroleum wells. Actions under the plan have included decommissioning and clean-up of surface infrastructure consistent with the NSW Code of Practice.



Leak Detection and Repair (LDAR) inspections are undertaken regularly by the NSW EPA at gas wells in NSW. Photo John Spencer/EPA.



