



The Gorgon Project: Legal and Policy Issues

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Introduction

On 14 September 2009, Australia's largest commercial carbon capture and storage (CCS) project, the Gorgon Joint Venture (GJV), was approved by the Western Australian Government.

While the GJV is not a fully integrated CCS project, it is expected to be the largest long term carbon dioxide storage project in the world¹ and as such has attracted much international attention. The State and Federal Governments announced in August 2009 that they would jointly accept responsibility for any long-term liabilities associated with the storage of carbon dioxide as part of the GJV.²

The development of a workable legislative framework, particularly in relation to long-term liability, has the potential to serve as a model in other jurisdictions around the world that use a similar approach to the regulation of subsurface rights.

Background

The GJV is an unincorporated joint venture between three international energy companies: Chevron Texaco, Shell and Exxon Mobil (the GJV Partners) who propose to develop the Gorgon, Io and Janz gas fields 130 kilometres off the coast of Western Australia. The GJV Partners' proposal for a gas-processing facility includes a proposal for the injection up to 3.3 million tonnes of reservoir carbon dioxide into the Dupuy Formation beneath Barrow Island, a Class-A nature reserve. The GJV is expected to commence preliminary construction by the end of 2009 and major construction early in 2010.

The Barrow Island Act

The Western Australian Government has adopted a project specific approach to CCS project regulation. The Barrow Island Act 2003 (WA) (the Act) and the Gorgon Gas Processing and Infrastructure Project Agreement (the Gorgon State Agreement) outline the terms and conditions of the Gorgon Project, including access to the island, supply of domestic gas to the mainland, funding for net conservation benefits, storage of carbon dioxide and local content obligations. The Agreement is contained in Schedule 1 of the Act. The Act is the first piece of Australian legislation which seeks to specifically regulate the capture and storage of carbon dioxide.

Capture of Carbon Dioxide

The Act regulates carbon dioxide capture activities occurring in the context of the Gorgon Project. Whilst the Act makes provisions for the injection and disposal of carbon dioxide on Barrow Island, it does not require it.³

The Act requires authorisation to be given by the Barrow Island Act Minister (the Minister) for the injection of carbon dioxide.⁴ Section 13 sets out the requirements for authorisation and provides that the Minister is unable to give authorisation without prior approval from the Ministers responsible for the Conservation and Land Management Act 1984 (WA) and the Land Administration Act 1997 (WA).⁵

The particulars to be included in an application for authorisation are listed in section 13(2)(b) of the Act.

They include:

- (a) the position, size, capacity and geological structure of the underground reservoir or other subsurface formation;
- (b) the rate of the proposed disposal of the carbon dioxide, the volume and composition of the carbon dioxide proposed to be disposed of and the expected duration of the proposed disposal;
- (c) the methods proposed to be used for the injection and disposal of the carbon dioxide;
- (d) the capability of the underground reservoir or other subsurface formation to confine the disposed carbon dioxide; and
- (e) technical advice and data available to the applicant in relation to the proposed disposal.

Transportation of Carbon Dioxide

The Act amends the Petroleum Pipelines Act 1969 (WA) (Petroleum Pipelines Act) to make it applicable to the transport of carbon dioxide involved in the Gorgon Project.

Section 11(1) of the Act amends the Petroleum Pipelines Act to include carbon dioxide resulting from gas processing on Barrow Island in the definition of 'petroleum' in section 4(1) of that Act.⁶ Section 11(2) of the Act amends the definition of 'pipeline' in section 4(1) of the Petroleum Pipelines Act to include a pipeline for the conveyance of carbon dioxide to a place on Barrow Island for the purpose of disposing of the carbon dioxide in an underground reservoir.⁷

Thus, the State's existing pipelines legislation is applicable to the transport of carbon dioxide for the purposes of the Gorgon Project. A person wishing to construct a pipeline must apply to the relevant Minister for a licence.⁸ The application process is set out in Part II of the Petroleum Pipelines Act, and includes particulars of the application,⁹ the process for renewal of a licence,¹⁰ and conditions which may be placed on the licence.¹¹

Exploration of Potential Storage Sites

The Act does not explicitly regulate the exploration of sequestration sites within the Gorgon Project area. However, it indirectly contemplates exploration, as it requires detailed technical information on storage sites as part of the application for approval for carbon dioxide injection activities.¹²

Injection of Carbon Dioxide into Storage Formations

The provisions relating to the injection of carbon dioxide are contained in Part 4 of the Act. Part 4 contains both provisions for the injection and storage of carbon dioxide, as well as amendments to other Acts to make them applicable to carbon dioxide. As already described, authorisation from the Minister is required under the Act for the injection of carbon dioxide.

Post-closure and long-term storage of carbon dioxide

Post-closure and long-term storage of carbon dioxide is not specifically contemplated by the Act. Importantly, the State Government has not provided the GJV with a post closure indemnity. The existing approval¹³ does, however, envisage the State Government providing the GJV with a site closure certificate at least 15 years after injection has ceased. Some of the matters that the State Government will consider, as a minimum, prior to providing a site closure certificate will be whether there are significant risks that the injected carbon dioxide will have adverse impacts on the formation into which the carbon dioxide was injected; on the environment; on human health and safety and on the conservation or exploitation of nearby natural resources (whether onshore or offshore).

Commonwealth precedent

There is a precedent nationally for the provision of post-closure liabilities for carbon dioxide injection projects. In late 2008 the Commonwealth Offshore Petroleum and Greenhouse Gas Storage Act 2006 was passed. This legislation allows the Commonwealth Government to take on liability post-closure for CCS projects in the offshore Commonwealth jurisdiction. In light of the Commonwealth 2008 decision, the GJV partners sought a commitment from the Government with respect to the provision of a post-closure indemnity in order to proceed with the development.

Government Indemnity

On 27 August 2009 the Commonwealth Government and the State Government announced that they would jointly accept responsibility for any long-term liabilities associated with the storage of carbon dioxide as part of the GJV. The Commonwealth has agreed to cover 80% of the liability arising from a successful claim subject to the State covering 20% of the liability.¹⁴ This indemnity will be for common law liability arising from independent third party claims for loss or damage, suffered post site closure, as a result of the GJV's long-term storage of reservoir carbon dioxide beneath Barrow Island.

The requirement for a post-closure indemnity for the GJV is not expected to occur for at least 75 years.¹⁵ It would only occur after continuous monitoring and modelling by the GJV of the stored carbon dioxide during, and for a period of at least 15 years after the carbon dioxide injection project ceases, when the GJV has satisfied both Governments that the site is acceptable for the GJV to relinquish responsibility.

The Western Australian Government is aiming to introduce to Parliament in 2010 legislative amendments to the Act for consideration which would enable the provision of an indemnity to the GJV on closure.

Further indemnities

The governments have not agreed to cover any liability associated with the venting of carbon dioxide under a proposed emissions trading scheme. Should injection for some reason not be possible, the matter would have to be addressed under the State environmental approval for the project.

Policy Underpinnings

The provisions of State and Commonwealth Government indemnities for the project are driven by the need for a framework that creates regulatory certainty by establishing clear rights and responsibilities at each stage along the CCS project chain for industry investors.

The significance of the project to the State and national economy was an often noted justification for the governments' acceptance of liability. Both the Commonwealth and State Government have recognised the GJV as the largest energy project ever undertaken in this country, resulting in 10,000 construction jobs and 3,500 direct and indirect jobs throughout the life of the project.

The Commonwealth Government is eager to develop an Australian CCS industry. It has shown strong support for the development of CCS through the provision of funding for large demonstration projects, releasing acreage for exploration for storage sites in Commonwealth offshore areas, and the establishment of the Global CCS Institute to accelerate the commercial deployment of CCS projects. Failure to properly address long-term liability, particularly liability for third party claims, could lead to a negative public perception of CCS technology and resistance to the development of CCS in Australia.

Conclusion

The State Government has yet to propose State-wide legislation for CCS projects in WA. The drafting of such legislation is currently under consideration by the Western Australian Department of Mines and Petroleum. A decision on whether to accept liability for other projects will be a matter for consideration during the development of this legislation.

It remains to be seen if the indemnity provided by the State and Federal Governments in this case will set a precedent. It does seem likely, however, that if the large scale investment in CCS envisaged by the G8 is to be realised, governments will need to step in where corporations cannot.

¹Government of Western Australia Department of State Development, Gorgon Project (Barrow Island), available at: <http://www.dsd.wa.gov.au/7599.aspx#7605>

²Peter Garrett, Interview with Simon Beaumont, Radio 6PR, Perth, 26 August 2009 available at: www.environment.gov.au/minister/garrett/2009/itr20090826a.html

³Barrow Island Act 2003 (WA), Part 4.

⁴Barrow Island Act 2003 (WA), s 13(1).

⁵Barrow Island Act 2003 (WA), s 13(5).

⁶Second Reading Speech, Barrow Island Act 2003 (WA).

⁷Second Reading Speech, Barrow Island Act 2003 (WA).

⁸Petroleum Pipelines Act 1969 (WA), s 7(1).

⁹Petroleum Pipelines Act 1969 (WA), s 8.

¹⁰Petroleum Pipelines Act 1969 (WA), s 11.

¹¹Petroleum Pipelines Act 1969 (WA), s 12.

¹²GCCSI Third Foundation Report, p.31.

¹³Gorgon Gas development revised and expanded proposal: Barrow Island Nature Reserve, available at: http://portal.environment.wa.gov.au/pls/portal/docs/PAGE/DOE_ADMIN/ENVIRONMENT_CONDITIONS_REPOSITORY/00800_2_.PDF

¹⁴Colin Barnett, 'Media Response-Gorgon' (Press Release, 15 September 2009) available at: www.mediastatements.wa.gov.au/Pages/WACabinetMinistersSearch.aspx?ItemId=132507&minister=Barnett&admin=Barnett

¹⁵Western Australia, Parliamentary Debates, Legislative Assembly, Tuesday, 10 November 2009, p8600b-8600b (Norman Moore).