



Australian Government
Department of Industry,
Innovation and Science

Resources

Discussion Paper – Decommissioning Offshore Petroleum Infrastructure in Commonwealth Waters

Offshore Resources Branch

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Decommissioning

For the purpose of Australian Government policy development and this paper, ‘decommissioning’ is taken to mean the process of removing or otherwise satisfactorily dealing with offshore petroleum property (structures, plant and equipment) and wells (collectively referred to as infrastructure), in a safe and environmentally responsible manner, at the end of its useful life. This includes plugging and abandoning wells, rehabilitating the site and carrying out any necessary monitoring.

Decommissioning is an ordinary component of offshore petroleum activities and may be undertaken at various points over the life of a petroleum project when the infrastructure is no longer needed – it is not restricted to the end of a project. Considering options to decommission disused infrastructure can and should occur at all stages of the project’s lifecycle.

The Australian context

The Australian offshore petroleum industry has been in operation since the early 1960s and is an important contributor to Australia’s energy security. The sector will continue this contribution into the future, with many offshore petroleum projects expected to continue for decades. As the sector continues to mature, an increasing number of offshore petroleum projects in Commonwealth waters are reaching the end of their productive lives. It is anticipated that a substantial number of the approximately 136 fixed facilities (including pipelines) are likely to commence decommissioning activities in the coming decade. Decommissioning represents a substantial cost within a project. Over the next 50 years Australia’s offshore petroleum industry’s decommissioning liability is estimated to be US\$21 billion.¹

Australia currently has a robust and comprehensive regulatory regime in place to ensure all petroleum activities are conducted in a manner that ensures optimal safety, well integrity and environmental management outcomes. Like all other petroleum activities, decommissioning can only take place once risk management plans for the activity are approved by the appropriate Government regulator(s). The [Commonwealth Offshore Petroleum Decommissioning Guideline](#) (decommissioning guideline) provides a comprehensive overview of the current policy, regulatory and legislative framework for decommissioning offshore petroleum infrastructure in Commonwealth waters (the decommissioning framework). A summary of current legislative and regulatory requirements is also provided at [Annex I](#).

¹ Wood Mackenzie (2018). *Decommissioning Asia Pacific on a budget*, 25 January 2018.

Various types of offshore petroleum infrastructure have been installed or are planned for installation in Commonwealth waters. This includes concrete gravity platforms, fixed steel jacket platforms, well-head platforms (which may or may not be manned) and floating production facilities (e.g. Floating Production Storage and Offloading vessels), together with associated equipment such as pipelines, flowlines and subsea completions. The nature and makeup of the infrastructure varies considerably between fields and depends on factors such as field size, field type (i.e. oil or gas), water depth and distance from other infrastructure. Each piece of infrastructure can present its own unique decommissioning challenges due to the combination of infrastructure type and its location in the surrounding environment.

To date a number of smaller projects have been successfully decommissioned under the current policy, regulatory and legislative framework. However, the framework has not yet been tested on larger decommissioning projects.

Decommissioning is a topical issue nationally and globally, as more decommissioning activities take place. International and domestic legislative and regulatory frameworks are being adjusted accordingly, to ensure they incorporate lessons learned and continue delivering optimal results.

Prior to anticipated and more significant decommissioning activities in Commonwealth waters, the department considers it is prudent and timely to review the decommissioning framework to clarify and make any necessary improvements to it.

Review

The Department of Industry, Innovation and Science (the department) is reviewing the decommissioning framework to help ensure it is fit for purpose, remains best practice, and that Australia is positioned to respond to decommissioning challenges and opportunities now and into the future.

The review focuses primarily on environmental and well integrity outcomes, and regulatory oversight. The review's Terms of Reference are available on the [department's website](#).

Discussion Paper

This Discussion Paper is an important first step in the review.

It outlines:

- a brief overview of the current decommissioning framework
- identified issues associated with the current decommissioning framework and suggested options for how these could be resolved

- decommissioning and financial security approaches taken by offshore petroleum sectors in comparable overseas jurisdictions, as well as in domestic onshore petroleum and mining, and offshore greenhouse gas injection and storage.

The paper's key purpose is to stimulate consideration of, and seek stakeholder feedback on, potential issues with the decommissioning regime and options to improve it. This is to ensure the Australian Government is aware of the full range of issues and potential options to address them, and to gauge levels of support for each, in order to inform due consideration of a revised framework.

The options identified in this paper do not necessarily represent the final Australian Government position. They are provided for transparency, to ensure all interested parties are aware of options contemplated to date, and provide insight into the department's current views about their perceived merits, applicability and effectiveness. This will help all interested stakeholders participate in and provide views as part of the open consultation process.

Consultation

Comments and submissions received through the consultation process will inform the department's approach in developing a revised decommissioning framework.

The department invites all interested parties to take part in the consultation process by participating in discussion forums and/or providing written comments.

The department encourages stakeholders to consider and address issues raised in this paper and provide supporting information, such as evidence and examples, where relevant.

Comments need not be limited to the issues raised in this paper, but the terms of reference have set clear parameters for the scope of the review. Views provided should focus on ways to enhance Australia's approach to decommissioning offshore petroleum infrastructure in Commonwealth waters.

Comments

The department invites interested parties to comment by 16 January 2019. Comments and submissions can be lodged via [consultation hub](#).

Comments and submissions may also be lodged electronically or by post, directed to:

Email:

offshorepetroleumreform@industry.gov.au

Mail:

Manager, Strategic Policy
Offshore Resources Branch
Resources Division
Department of Industry, Innovation and Science
GPO Box 2013
CANBERRA ACT 2601

Comments and submissions will be published on the department's website unless, on the submission, you clearly indicate that you would like your comments to be treated as confidential.

The department encourages comments and submissions that can be made public. This enhances transparency and provides clarity to the full range of stakeholders about the origins of particular views and the levels of support that may exist for any particular option canvassed. Should you wish to include confidential comments or submissions, the department encourages you to include these comments or submissions separately to public ones, so that they can be easily excluded from publication.

Where appropriate, the department may decide to redact parts of comments or submissions to protect the confidentiality of stakeholders.

Comments and submissions marked confidential will not be made available unless in response to a request to be made available determined in accordance with the [Freedom of Information Act 1982](#) (Cth). Under that Act, agencies and Ministers are required to publish on their websites information that has been released in response to a freedom of information access request. Further information is available on the [department's website](#).

Public discussion forums

The department will hold discussion forums to talk about issues and options, and seek verbal feedback on this paper.

Sessions will be held in Perth and Melbourne. If there is sufficient interest, the department will also consider running sessions in capital cities near major offshore petroleum activity.

Details on the timing, venue and how to register to attend the discussion forums are on the department's website.

Enquiries

You can send any enquiries related to this Discussion Paper or to the decommissioning review generally to offshorepetroleumreform@industry.gov.au.

Related work

Western Australian Government Review

Western Australia (WA), through its Department of Mines, Industry Regulation and Safety, is reviewing its decommissioning framework for all areas within its jurisdiction (onshore and offshore).

In late 2017, WA released the [Petroleum Decommissioning Guideline](#), outlining the current decommissioning regime for WA coastal waters and onshore areas.

The department is working closely with the WA department and other states and the Northern Territory to ensure that, wherever practicable, government requirements for decommissioning offshore petroleum infrastructure are as aligned or consistent as possible in order to achieve efficiencies for all parties.

Administrative streamlining of OPGGS and Sea Dumping approvals

The department and the Department of the Environment and Energy are continuing to investigate opportunities for administrative streamlining of approval processes under the [Offshore Petroleum and Greenhouse Gas Storage \(Environment\) Regulations 2009](#) (the Environment Regulations) and the [Environment Protection \(Sea Dumping\) Act 1981](#) (Sea Dumping Act). Any streamlining would aim to reduce the overall regulatory burden associated with instances where dual approvals are required.²

Petroleum Resources Rent Tax review

As outlined in the [Interim Government Response to the Petroleum Resources Rent Tax \(PRRT\) Review](#), the Government is open to recommendation 3 of the [PRRT Review Final Report](#) and notes it will be considered in the context of this review (of the decommissioning framework for offshore petroleum infrastructure in Commonwealth waters).³

Current PRRT arrangements are that, for projects that have paid PRRT, closing down expenditure is able to be deducted against assessable PRRT receipts derived in the same

² Proposals to dispose of petroleum property at sea require approval from NOPSEMA under the Environment Regulations and, in some cases, a sea dumping permit from the Minister for the Environment under the Sea Dumping Act. These decision makers contemplate similar matters in their assessments, specifically, minimising the potential for impacts to the environment, including other users of the sea.

³ Recommendation 3: 'The review into the legislative framework for decommissioning of projects currently being undertaken by the Department of Industry, Innovation and Science should take into account the impact of decommissioning expenses on PRRT revenue.' PRRT Review Final Report (2017), at https://static.treasury.gov.au/uploads/sites/1/2017/06/R2016-001_PRRT_final_report.pdf; Interim Government Response to the PRRT Review (2017), at <https://cdn.tspace.gov.au/uploads/sites/72/2017/06/Interim-Government-Response-to-the-Petroleum-Resource-Rent-Tax-Review.pdf>.

financial year. If closing down expenditure exceeds assessable receipts, the excess give rise to a refundable credit at 40 cents in the dollar of the excess (capped to the extent of PRRT paid).

COAG Energy Council investigation into mine site rehabilitation financial obligations

At the COAG Energy Council's November 2017 meeting, Ministers noted the issues highlighted by Western Australia regarding mine site rehabilitation financial obligations and associated interpretations within the [Corporations Act 2001](#) and the [Australian Accounting Board Standards](#).⁴ Ministers agreed that an investigation of a nationally consistent approach to these issues be undertaken by the Resources and Engagement Working Group.

Offshore petroleum safety regime review

The department is undertaking a review of the occupational health and safety (OHS) regime for offshore petroleum workers in Australian waters.

The review is part of the department's continuous regulatory improvement process and in anticipation of the sunsetting of the current offshore safety regulations, the [Offshore Petroleum and Greenhouse Gas Storage \(Safety\) Regulations 2009](#) (Safety Regulations), on 1 April 2020.

The review aims to ensure the current OHS regime continues to provide an effective framework for securing the health, safety and welfare of workers, and represents leading practice in delivering safe offshore petroleum and greenhouse gas storage activities.

The evidence-based review will look at:

- the Safety Regulations
- Schedule 3 (Occupational Health and Safety) of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (the OPGGS Act)
- any other matters under the OPGGS Act incidental to the items above, but necessary for a comprehensive review of the safety regime.

The review may result in proposed policy changes and legislative amendments, where necessary, to improve the OHS regime.

For further information on the review please visit the [department's website](#).

⁴ Refer to 15th COAG Energy Council Meeting Communique of 24 November 2017, at <http://www.coagenergycouncil.gov.au/sites/prod.energycouncil/files/publications/documents/15th%20COAG%20Energy%20Council%20Communique%20final.pdf>.

Decommissioning principles

The following key principles underpin the current decommissioning framework. Any future changes will be assessed against these principles to ensure a consistent regime.

1. Objective-based regulation

Regulation of the Australian offshore petroleum sector is objective-based. This means that broad objective- and performance-based requirements are placed on parties with the requisite level of control and knowledge to effectively respond, and permit those entities to tailor responses (regulatory permissioning documentation) to their individual circumstances.

This requires [duty holders](#) to demonstrate to the regulator, the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA), through reasoned and supported arguments and evidence that all reasonable measures have been taken to reduce the identified risks of the proposed activity. NOPSEMA, as the independent regulator for safety, well integrity and environment management for offshore oil and gas activities, must assess and accept that a duty holder has reduced the impact and risks of an activity to as low as reasonably practicable before an activity can occur.

Objective-based regulation is regarded as world's best practice for high hazard industries, such as the offshore oil and gas sector. An objective-based regime is considered essential for ensuring the Commonwealth regime remains sufficiently flexible to meet the evolving technical challenges and opportunities associated with decommissioning as they arise, and encourage innovation and continuous improvement.

2. Environmental, safety and well integrity outcomes are paramount

Decommissioning is a normal activity in the lifetime of an offshore petroleum project. Its purpose is to remove or otherwise satisfactorily deal with, in a safe and environmentally responsible manner, infrastructure previously used to support operations. This includes plugging and abandoning wells, removal of equipment and carrying out any necessary monitoring.

As such, it will always be subject to the fundamental objectives of the offshore petroleum regime – in particular that any environmental, safety and/or well integrity risks associated with petroleum activities must be reduced to ALARP and, in the case of environmental risks, also to acceptable levels.⁵

⁵ [Further guidance on ALARP](#) is available on the NOPSEMA website.

3. Decommissioning is the responsibility of titleholders

Under the OPGGS Act and regulations, titleholders are responsible for decommissioning (including the associated costs), and for complying with any regulatory approvals required to carry out a decommissioning project.

Titleholders that have installed and/or operated infrastructure in offshore areas are responsible for the infrastructure, including its eventual decommissioning. This also applies to titleholders that have acquired assets, including infrastructure, from a former titleholder through a transfer of title.

The titleholder's obligations in relation to decommissioning include timely and effective planning, obtaining necessary approvals, and executing the activities in compliance with the OPGGS Act, the regulations (including accepted permissioning documents), and other applicable domestic and international laws.

4. Decommissioning should be considered early and often

Decommissioning will impact virtually all stages of the petroleum lifecycle. Accordingly, it should be considered and planned for at all stages of a project's life.

This includes considering decommissioning at the earliest stages of project development as part of concept selection and design. Infrastructure that is intelligently designed with decommissioning in mind can typically be decommissioned at lower cost, and in a way that delivers better environmental, safety and well integrity risk management outcomes.

Early planning will help ensure decommissioning obligations and associated costs can be factored into overall project costs and planning.

While the eventual decommissioning approach may vary from that originally envisaged – depending on factors such as environmental conditions, technological advances and public expectations – titleholders are encouraged to integrate decommissioning as a key input to decision-making throughout the life of a project. As outlined in the decommissioning guideline, titleholders are encouraged to plan for decommissioning at the early stages of project development, including as part of an overall field development strategy.

Titleholders should maintain (and regularly review and update as appropriate) an inventory of infrastructure in their title areas, in order to monitor and identify property that can and should be decommissioned on an ongoing basis. NOPSEMA and/or NOPTA may require

that titleholders provide this information in relation to various submissions or applications under the OPGGS regime.

The OPGGS Act imposes requirements on titleholders to maintain and remove property brought into the title area in connection with the operations authorised by the title. Titleholders must maintain all infrastructure in good condition and repair whilst it is to be used in connection with the operations authorised by the title. When infrastructure is neither used nor to be used in connection with the operations authorised by the title, the titleholder must remove it from the title area. These property removal obligations allow some discretion where a titleholder can demonstrate that an alternative proposal otherwise meets the requirements of the Act and regulations and the arrangements are acceptable to NOPSEMA.

Ongoing compliance with these obligations can facilitate a periodic or phased approach to decommissioning, and can reduce the costs of decommissioning undertaken at the end of production. Where any infrastructure is not currently in use, but the titleholder has not yet determined that it has no possible future use, the titleholder has an obligation to ensure that it is maintained in an appropriate state to facilitate future removal.

5. Complete removal is the “base case”

There are three main options for decommissioning property: complete removal, partial removal, and repurposing or reuse.

Under the OPGGS Act the complete removal of property and the plugging and abandonment of wells is currently the default decommissioning requirement.

This is consistent with Australia’s international obligations, primarily under the United Nations Convention on the Law of the Sea (UNCLOS) and the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) and associated Protocol.⁶

Without changes to these international obligations, the complete removal of property and the plugging and abandonment of wells will remain the default requirement for decommissioning offshore petroleum infrastructure in Commonwealth waters.

Currently, other options can be considered and may be approved if the titleholder can demonstrate that the alternative decommissioning approach delivers equal or better environmental, safety and well integrity outcomes compared to complete removal, and that the approach complies with all other legislative and regulatory requirements, including requirements under other Commonwealth laws. This acknowledges the variability of factors

⁶ The International Maritime Organisation (IMO) [Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and the Exclusive Economic Zone \(IMO Resolution A.672\(16\)\)](#) also applies. This instrument sets out the matters to be considered by State parties to UNCLOS when making decisions dealing with abandoned or disused installations or structures on the Continental Shelf.

(including site-specific environmental and safety risks, type of infrastructure, costs, and available technology) that may affect titleholders' considerations. In practice there are instances where regulators, including NOPSEMA, have allowed for alternative arrangements, including abandonment in the marine environment.

Specifically, subsection 572(7) of the OPGGS Act enables consideration of any other provision of the OPGGS Act, associated regulations and any directions or other laws that may be relevant in determining appropriate decommissioning outcomes. The Environment Regulations provide for detailed consideration of the risks and alternatives, as well as relevant stakeholder considerations, in reaching a decision as to whether to allow property to remain in the marine environment or require compliance with the base case of complete removal. Subsection 270(3) of the OPGGS Act sets out the criteria for the Joint Authority to consent to surrender a title. It explicitly provides that titleholders are able to make arrangements that are satisfactory to NOPSEMA in relation to any property within the title area.

6. Decommissioning should take place before block(s) become vacant acreage

As is clearly articulated in the decommissioning guideline, all decommissioning activities should be undertaken while a title is still in force. This is to:

- ensure that all decommissioning activities are conducted under the framework of the OPGGS Act and regulations, providing legal and process certainty to all stakeholders and ensuring risks to safety, well integrity and the environment are effectively managed
- provide a structured process for titleholders seeking to vacate a title area, through ensuring all applicable legislative and regulatory obligations have been met prior to a title ending.

The Australian Government expects titleholders to complete all decommissioning activities before their title ends over all or the relevant part of the area to which it relates. This includes where a title is brought to an end by a decision of a Joint Authority (e.g. where it consents to surrender a title) or by the direct operation of the OPGGS Act (e.g. where a title expires).

There are also commercial and reputational benefits to the titleholder in meeting their decommissioning obligations.

Issues, opportunities and potential options

The department has identified elements of the current decommissioning framework that have the potential to be improved. These include:

1. [Decommissioning obligations](#) – clarifying the scope of infrastructure to which decommissioning obligations apply, decommissioning timing and considerations that will be relevant to government’s consideration of decommissioning-related applications.
2. [Information available to government](#) – ensuring government has advance and up-to-date information on a titleholder’s plans for decommissioning, to verify decommissioning activities undertaken, as well as inform likely impacts of various decommissioning options.
3. [Legal responsibility](#) – clarifying who is responsible for ensuring decommissioning is carried out, the extent to which they are responsible, the length of time for which they are responsible, and who is liable in the event something goes wrong.
4. [Financial responsibility](#) – ensuring titleholders have sufficient financial capacity to meet their decommissioning requirements and that appropriate financial responsibility mechanisms are in place.
5. [Post-title compliance and enforcement](#) – making policy and technical improvements to strengthen the tools available to ensure remedial work can be undertaken if required.
6. [Other issues and opportunities](#) – exploring current decommissioning-related collaboration and research in Australia, whether there is interest and merit in creating an Australian offshore petroleum decommissioning industry, and if there are other issues relating to decommissioning that the Australian Government should be aware of and/or involved in.

The department has also provided potential options for resolving issues and taking advantage of the opportunities that are outlined in the paper.

Any proposals discussed in the paper do not represent a final Australian Government position, but are provided to stimulate thinking and discussion.

The Australian Government aims to ensure it continues to apply international leading or best practice to the regulation of offshore petroleum activities. The department has therefore examined key elements of the decommissioning and financial security approaches in comparable international (in [Annex II](#)) and domestic regimes (in [Annex III](#)). Key elements of these regimes are outlined to assist when considering and comparing options discussed in this paper and considered in its relevance to the Australian context.

[Annex II](#) provides an overview of relevant requirements for [Norway](#), the [United Kingdom](#) (UK), the [United States](#) (US) and [Canada](#). These jurisdictions were chosen because all are considered leading practice, have established offshore petroleum industries and regulatory regimes that take broadly similar regulatory approaches to Australia.

[Annex III](#) outlines elements of the coastal waters and onshore gas and mining regimes of [Western Australian](#) (WA), [Victoria](#) and [Queensland](#). These are included as illustrations of how decommissioning requirements are implemented within Australia. An overview of parts of the [Commonwealth greenhouse gas \(GHG\) injection and storage regime](#) is also provided as a useful comparison of arrangements, particularly regarding financial security, decommissioning plans, site closure and long-term liability.

1. Decommissioning obligations

1.1 Issues and opportunities

1.1.1 Decommissioning obligations only explicitly apply to property

Currently the [property removal obligation](#) only relates to 'structures, equipment and other property'. It does not explicitly oblige titleholders to remediate the environment, to plug and abandon wells or to make good any damage to the seabed or subsoil in the title area.

The decommissioning of a title area will necessarily involve these activities. While requirements in relation to these matters exist elsewhere in the OPGGS Act, such as the [criteria for consent to surrender](#), the OPGGS Act does not expressly impose obligations on titleholders to do all of these things.

1.1.2 Exact decommissioning timeframes are not specified

[Property removal obligations](#) are the responsibility of the titleholder, and NOPSEMA can challenge titleholders to provide compelling reasons as to why removal is not appropriate, or otherwise to remove property that appears to have no future use.

However, the absence of a timeframe for compliance, combined with the ambiguous wording of the obligation ('neither used nor to be used'), has the potential to create difficulties.

If property is not either removed at the appropriate time or adequately maintained, it will likely deteriorate over time, potentially making removal operations considerably more costly and potentially increasing safety, integrity and environmental risks.

The decommissioning of production-related infrastructure is typically connected to and driven by decisions to cease production operations. The decision to cease production will normally occur once production is no longer economically viable. A range of factors including production rates, commodity prices, and operating costs will be taken into consideration when making the decision. The timing of decommissioning infrastructure once production has ceased will depend on potential alternative uses, the likelihood of production being restarted, nearby resources and overall decommissioning costs.

These issues are reflected in international experiences in the North Sea and the Gulf of Mexico, where some industry members have brought forward cessation of production and decommissioning dates to limit their losses, as lower oil prices impact asset cash flows.

Where a titleholder intends to cease production earlier than forecast in the accepted [Field Development Plan \(FDP\)](#), they are required to apply to the Joint Authority for a variation to the FDP at least 90 days before production is to cease. The Joint Authority considers the efforts made by a titleholder to extend the life of the field and the economic viability of continued production in assessing such applications.

While the cessation of production is partially regulated under the OPGGS regime, there are no provisions relating expressly to the timing of decommissioning.⁷ This includes no specific regulatory obligation in relation to the cessation of production where production has exceeded the levels forecast within the accepted FDP.

Although titleholders are not required to seek permission from government or the regulator to decommission, it is NOPTA's expectation that a titleholder will consult with NOPTA well in advance of any decision to cease production to avoid any potential for regulatory actions.⁸

In contrast to the Australian system, the [US](#) has addressed this issue by setting specific timeframes for removing infrastructure. The US Government requires licensees to remove platforms and plug and abandon wells within one year after the licence ends, or if relevant infrastructure has not been used for at least five years. The [UK](#) forbids licensees to begin decommissioning until a program is accepted by government. [Norway](#) also requires industry to undertake decommissioning within a prescribed time prior to the end of the relevant license, however in that case the process is managed through a comprehensive decommissioning plan.

1.1.3 The consent to surrender requirements only operate at the end of title

The Australian Government's policy is that a site should be properly decommissioned before a title is relinquished and blocks becomes vacant acreage.⁹

Although a titleholder may undertake decommissioning activities at any time during the lifecycle of a petroleum project, the [criteria for consent to surrender](#) requirements are only considered once the titleholder has submitted an application for consent to surrender a title. It therefore only operates at the end of title and the title has to end before it is clear that the titleholder has not complied with the current property removal obligation.

If the decommissioning criteria for consent to surrender are not met, the Joint Authority must either refuse consent to surrender, or consent to the surrender on the basis that there are sufficient grounds to do so. In the latter case, the title will be brought to an end and relevant blocks in the title area will become vacant acreage without having been properly decommissioned.

⁷ Field Development Plans (FDPs) typically include an estimate of the amount of recoverable petroleum in the field, data to support that estimate, a description of field development strategy, and estimated production timeframes. Titleholders may wish to cease production earlier than originally anticipated in the Joint Authority-accepted FDP. Depending on the circumstances, this may trigger the legislative threshold of a major change in relation to the petroleum recovery from the field, and an application for a variation to the FDP may be required.

⁸ Titleholders are legally required to satisfy NOPSEMA as to their risk management arrangements before starting any petroleum activity, including decommissioning.

⁹ 'Vacant acreage' is the term generally used to refer to an area not subject to a petroleum exploration permit, retention lease or production licence.

Vacant acreage is no longer controlled by a current titleholder and therefore various titleholder obligations under the OPGGS Act (e.g. property removal) do not apply and the full range of enforcement powers are no longer available to the regulator. Post-title compliance and enforcement issues and potential options are discussed further in [section 5](#).

1.1.4 Aspects of the criteria for consent to surrender are unclear

Paragraph 270(3)(e) of the OPGGS Act relates to ‘...conservation and protection of the natural resources in the surrender area’. The policy intention is that this apply to a wide variety of physical elements and living organisms that constitute the ‘environment’ in the title area.¹⁰ However, the definition of ‘natural resources’ points to an UNCLOS definition that makes specific reference to only a very narrow category of living organisms.¹¹

Further, the wording of paragraphs 270(3)(d) to (f) of the OPGGS Act appears at face value to impose strict requirements, since they do not contain provision (such as that in subparagraph 270(3)(c)(ii)) for alternative arrangements that are satisfactory to NOPSEMA to be made. In practice, a comprehensive range of environmental matters and impacts are considered and assessed by NOPSEMA through other existing regulatory mechanisms, such as Environment Plans. However, the inconsistent phrasing of obligations within this subsection may cause confusion as to whether alternative arrangements are able to be made in relation to these obligations.

1.1.5 Express decommissioning criteria do not apply to all ways titles or parts of titles can become vacant acreage

The decommissioning-related criteria in paragraphs 270(3)(c) to (f) of the OPGGS Act only apply where a titleholder applies for consent to surrender their title. Where a title or parts of a title revert to vacant acreage by other means (e.g. by cancellation, revocation, renewal, refusal to renew, expiry or termination), decision criteria are not similarly explicit to determine in advance whether a site has been decommissioned. In some cases, a title may come to an end (and therefore blocks become vacant acreage) by means of automatic operation of the OPGGS Act, rather than a decision of the Joint Authority, with no scope to take decommissioning into account.

¹⁰ As outlined in the [Explanatory Memorandum to the Offshore Petroleum Bill 2005](#) [143], this paragraph ‘could refer to actions such as the regular monitoring of plugged wells by the titleholder to ensure there is no leakage of remnants of petroleum or drilling muds into the marine environment’.

¹¹ OPGGS Act s 7; ‘...living organisms belonging to sedentary species, that is to say, organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil.’ The definition also refers to ‘...mineral and other non-living resources of the seabed and subsoil’.

As discussed in [section 1.1.3](#), vacant acreage is no longer controlled by a current titleholder and therefore various titleholder obligations and enforcement powers under the OPGGS Act do not apply.

As discussed in [decommissioning principle 6](#) and the decommissioning guidelines, the Australian Government expects titleholders to undertake decommissioning before the title (or a part of the title) becomes vacant acreage. This is to ensure that the onus for carrying out any necessary work does not ultimately fall to the Australian Government (and therefore the Australian taxpayer).

A generic set of decommissioning obligations will need to be included in the legislation for clarity and to strengthen the government's (including NOPSEMA's) ability to enforce decommissioning.

1.2 Potential options

1.2.1 Expressly require property removal or alternative arrangements

The [property removal obligation](#) could be amended to expressly require titleholders to either remove property or make alternative arrangements that are satisfactory to NOPSEMA. This should provide additional clarity, as well as the upfront flexibility necessary for industry to consider and explore a range of decommissioning options. It should also align the general stand-alone obligation with other decommissioning-related provisions of the OPGGS Act, such as the criteria for a consent to surrender decision.

While titleholders may wish to explore and submit a number of decommissioning options for regulatory approval, it is expected and would need to remain clear that complete removal would always need to be contemplated and compared as the first option. The base case of complete removal inspires both industry and government to work towards ensuring new infrastructure is intelligently designed to facilitate modular removal at the end of its useful life, in line with applicable international legal requirements.¹²

A disadvantage of the amendment suggested under this option is that it would not expressly require industry to plug and abandon wells and remediate the title area. Therefore separate, parallel amendments would need to be made to the OPGGS Act to implement this requirement.

1.2.2 Apply a timeframe or more precise regulatory trigger for property removal

In addition to [option 1.2.1](#) above, a timeframe or more precise regulatory trigger for applying the [property removal obligation](#) could be inserted. This would provide the opportunity to

¹² This would also support requirements within the IMO Guidelines and Standard that no platform or structure should be erected after 1 January 1998 unless its complete removal upon abandonment or permanent disuse is technically feasible.

encourage/oblige the removal of disused property periodically throughout the life of a title, separate to decommissioning undertaken once operations have ceased entirely. It would also provide clearer expectations to industry and facilitate more effective enforcement. This may be appropriate given it is not always practical to require property be removed “by the end of a title”; operations under some titles may be developed and decommissioned in phases. Consistent with approaches taken in other jurisdictions, decommissioning could be required within a prescribed time before the end of the title or after the infrastructure has been out of use for a certain period.

Options for imposing a timeframe might include:

- a non-legislative trigger: using existing regulatory oversight powers and compliance tools in combination with guidelines outlining the approach, NOPSEMA could challenge the titleholder at certain times (e.g. during monitoring inspections or consideration of permissioning documents) either to provide compelling reasons as to why removal is not appropriate, or to remove property and properly plug and abandon any non-operational wells. This approach is being increasingly taken by NOPSEMA, consistent with its compliance monitoring function.
- a legislative trigger: similar to the approach taken by the [US](#) and in some domestic onshore petroleum regimes, providing titleholders with a prescribed time within which to remove property that has not been used and to properly plug and abandon wells that are not operational but not yet permanently abandoned.

A potential disadvantage of imposing timeframes for decommissioning are that, if the timeframes for compliance are not set correctly and/or carefully managed, it may lead to titleholders decommissioning too early (with impacts on optimal resource recovery) or too late (with impacts on environmental outcomes).

Submissions may wish to consider and comment on the following:	
Q1	Should the property removal obligation be amended to specifically require titleholders to either remove property <u>or</u> make other arrangements that are satisfactory to NOPSEMA? Please articulate why or why not.
	If yes: What mechanisms do you propose as most effective for seeking acceptance of alternative arrangements, and why?
Q2	Should timeframes for property removal be mandated? Please articulate why or why not.

If yes: At what time(s)? Should it be a legislative or non-legislative trigger?

If no: what is an alternative approach to ensure that decommissioning is undertaken at the appropriate time?

1.2.3 Insert express decommissioning obligation(s)

Alternatively, a standalone requirement to decommission could be inserted into the OPGGS Act. This new requirement could either supplement or replace the current property removal obligation, and could explicitly require titleholders to decommission their title area in accordance with the legislation and/or regulations.¹³ Consistent with the [criteria for consent to surrender](#), the obligation could include express requirements to remove or make arrangements for property, plug and abandon wells, and remediate the title area.

Similar to [option 1.2.2](#), a timeframe or regulatory trigger for the obligation to decommission might be included.

An advantage of this option is that it would clarify that titleholders are responsible for decommissioning regardless of when and how a block becomes vacant acreage, and help ensure decommissioning and site rehabilitation is undertaken in a timely manner.

It would also clearly articulate decommissioning obligations, improve overall project planning (e.g. by obliging decommissioning to be considered prior to commencing operations), and align Australia with comparable overseas jurisdictions. Through this option, interactions between decommissioning obligations in the OPGGS Act and the regulations could be clarified.

Inserting a standalone decommissioning requirement is also an opportunity to shift the focus from end-of-lifecycle management, to instead emphasise titleholders' obligations to decommission infrastructure throughout the life of a project.

The intent is that a decommissioning obligation would apply jointly and severally to all current holders of the relevant title, and will also apply to former titleholders notwithstanding that they have transferred their title to another entity. This is the approach taken in the [UK](#). The obligation would apply to former titleholders only to the extent that the current titleholder (e.g. a transferee) fails to comply. It would not require former titleholders to decommission infrastructure installed after a relevant transfer has taken place, since it is inappropriate to require a former titleholder to decommission infrastructure that they have neither installed

¹³ As with the surrender criteria and remedial directions, the 'satisfaction' of NOPSEMA could be attained through the submission and acceptance of permissioning documents, e.g. an environment plan, well operations management plan.

nor used for the purposes of their petroleum operations, or otherwise taken ownership of and responsibility for through a transaction with another entity.

Enforcement actions would be available for non-compliance. For example, similar to the existing property removal obligation, a pecuniary penalty (criminal and/or civil) could be applied (e.g. a number of penalty units), and/or provision could be made for a statutory cause of action against the titleholder to recoup the costs of NOPSEMA or the Australian Government arranging for necessary decommissioning work to be undertaken.

Submissions may wish to consider and comment on the following:	
Q3	Should a new standalone decommissioning obligation be included within the regime? Please articulate why or why not.
	If yes: What would be appropriate decommissioning requirements? What would be an appropriate regulatory trigger for such an obligation? What would be an appropriate penalty or penalties, or what other enforcement actions should be available for non-compliance?

2. Information available to government

Advance and up-to-date planning information

2.1 Issue and opportunity

2.1.1 No requirement for advance decommissioning planning and up-to-date information on infrastructure

The government has access to some information about a titleholder's future decommissioning intentions, as provided by titleholders through existing relevant applications and permissioning documents.¹⁴ Regulators are also able to seek additional information from titleholders as part of their compliance monitoring functions.

There is, however, no explicit requirement for titleholders to ensure the government has up-to-date information on infrastructure in their title area, including its use and status, and projected decommissioning activities and proposals, including timing, through the life of the title.

Further, there is no requirement for titleholders to provide an overarching proposal to government on how and when they intend to decommission infrastructure, and plug wells in their title area. This information would be particularly useful for production projects, for which there is generally a larger scope of decommissioning required. Such information would support informed regulatory oversight by government and help assure the community that decommissioning is being carefully planned for.

Having up-to-date information throughout the life of a title could also ensure government is able to more accurately estimate decommissioning costs (cost estimation and financial capacity to decommission are discussed further in [section 4](#)), and increase regulators' ability to ensure that decommissioning is undertaken before a title comes to an end.

2.2 Potential options

2.2.1 Require additional decommissioning information in environment plans

To ensure NOPSEMA has access to up-to-date information about future decommissioning activities, titleholders could be required to include information in environment plans about how they propose to decommission infrastructure used for the activity to which the plan relates.

This would both encourage early consideration and planning by the titleholder, as well as strengthen NOPSEMA's ability to monitor and assess which decommissioning approaches

¹⁴ Including environment plans, well operations management plans, titles applications, FDPs, and offshore petroleum project proposals for more recently established infrastructure.

will be acceptable at the end of the relevant project (e.g. if the environment plan includes information regarding the interaction between the infrastructure and the surrounding environment). This will also enable a more realistic estimation of decommissioning costs and advance planning for the final approach, which may lower costs in enabling or leveraging coordinated or collaborative opportunities amongst titleholders.

This option could also support and inform the implementation of a potential close-out reporting process (discussed in [section 2.4.1](#)) and decommissioning financial security arrangements (discussed in [section 4.2](#)).

This is similar to the approach taken in Canada, where industry members must submit an outline of how they propose to decommission the relevant site at the end of operations with each application for an activity authorisation.

A drawback to this option is that titleholders would be required to consult with relevant persons on their proposed decommissioning approach far in advance, at a time when the physical state of the environment and infrastructure at the point of decommissioning is uncertain and the decommissioning method may change depending on factors such as technological advances. It may also not provide an overarching plan for how all of the infrastructure in the title area will be decommissioned, since environment plans are activity specific.

2.2.2 Require a stand-alone decommissioning plan

Titleholders could be required to plan for how they intend to decommission infrastructure, especially large pieces of infrastructure at the end of production. A decommissioning plan could be required to provide a high-level indication of the titleholder's planned approach for the eventual comprehensive decommissioning of infrastructure in the title area, including estimated costs.

The proposal could be submitted to government in draft form. For projects entering the development stage, this would likely be submitted at the same time as the initial FDP, when information on decommissioning would be limited but an inventory of key infrastructure may be available.

The decommissioning plan would be periodically updated over the life of the field, as the titleholder firms up their strategy and plans for decommissioning.

The plan would cover aspects of the OPGGS Act and regulations that are not already covered by existing permissioning documents. This revised process would not replace the requirement to submit other regulatory permissioning documents (e.g. safety case, environment plan and WOMP) before commencing decommissioning activities. There is a risk that additional planning requirements through a decommissioning plan could increase burden without adding value in terms of risk management.

A decommissioning plan could be used to gain in-principle approval for the general plan for and approach to decommissioning. It could act as a parent document, upon which any close-out reporting (discussed in [section 2.3.1](#)) could be based. This would ensure the close-out report is distinct from environmental performance reports, which report performance against outcomes and standards in an environment plan.¹⁵

The advantage of this approach is that it would help to ensure decommissioning is considered at the early stages of field development and then managed over the life of the field. It also supports other regulatory processes such as transfers of title and regulatory assessments.

The decommissioning plan could be submitted by the titleholder to regulators (NOPSEMA and possibly the Department of the Environment and Energy (DEE)). Copies could also be provided to: NOPTA in order to assess financial capacity to decommission, or for their consideration of any transfer and dealing applications; the Joint Authority, in support of its oversight of resource management and security; and the agency responsible for any financial security checks (discussed in [section 4.2](#)), if not one of the aforementioned agencies.

2.2.3 Require a regular inventory of infrastructure

Titleholders could also be required to provide an inventory of and status report on infrastructure in a title area. This would ensure the government has access to up-to-date information that could be used for purposes such as cost estimation, for example at the point of application for a transfer of a title.

This option may be implemented in conjunction with or as part of the increased information that would be required in options discussed in [section 2.2](#).

Titleholders would regularly update their inventory as they add to, modify and/or decommission infrastructure in their title area, updating the government accordingly.

Submissions may wish to consider and comment on the following:	
Q4	Should titleholders be required to inform government of their overarching plans for decommissioning? Please articulate why or why not.
	If yes: At what time(s) should this occur? What is the most appropriate method?

¹⁵ Environment Regulations s 26C

Q5

Should titleholders be required to periodically update government about decommissioning-related information, including an inventory of infrastructure and its status, and a progress report on decommissioning items of infrastructure? Please articulate why or why not.

If yes: What information should be required and when should it be required?

Close-out reporting

2.3 Issue and opportunity

2.3.1 Decommissioning-related environmental close-out reporting not required

Currently there are comprehensive reporting requirements relating to the end of a WOMP.¹⁶ When this process is completed, it clearly demonstrates NOPSEMA is satisfied with the well abandonment process.¹⁷

However, there is not an entirely comparable reporting process in place for environmental management. While the Environment Regulations require titleholders to notify the end of an environment plan, and to submit an environmental performance report at least annually, these process are not as comprehensive as that needed to bring a WOMP to an end.¹⁸

2.4 Potential option

2.4.1 Implement an environmental 'close-out' report

Titleholders could be required to submit a final report (a 'close-out' report) to NOPSEMA after decommissioning infrastructure.

The report could, at a minimum, contain a summary of the decommissioning operations and a description of the decommissioning outcomes, including the extent of final removal of property, any items that could not be recovered and the presence of any residual risks. It could include sufficient information to demonstrate the as-left state of the environment

¹⁶ Under regulation 5.17 of the RMA Regulations, a WOMP will continue to apply to a well until such a time as the titleholder has permanently abandoned the well, submitted a report to NOPSEMA in respect of the abandonment process and outcome, and received written confirmation that NOPSEMA is reasonably satisfied that abandonment was completed in accordance with the WOMP.

¹⁷ [Explanatory Statement, Offshore Petroleum and Greenhouse Gas Storage Legislation Amendment \(Well Operations\) Regulation 2015](#), [26].

¹⁸ Environment Regulations reg 25A.

following completion of decommissioning activities. The report should also address the decommissioning-related matters currently mentioned in the [surrender criteria](#).

Once submitted, NOPSEMA could either approve the report or refuse to approve it on the basis of whether it sufficiently demonstrates that appropriate decommissioning has been undertaken. This could be used as evidence of whether the titleholder has complied with the surrender criteria or a broader decommissioning obligation relating to property removal and site rehabilitation ([option 1.2.2](#)), thereby informing the Joint Authority's consideration of whether to consent to surrender a title. Further, if bonds or other financial security arrangements were established (discussed in [section 4.2](#)), the approval could be used (along with other relevant evidence) as grounds to relinquish the relevant security to the titleholder.

This approach has the advantage of building on existing reporting mechanisms in Part 5 of the RMA Regulations (i.e. end of a WOMP). It may be achieved by simply strengthening existing requirements under the Environment Regulations or by adapting existing requirements in the RMA Regulations for use in the environmental management context.

The department does not propose a close-out or similar reporting process for the Safety Regulations. The safety framework is designed to ensure the workforce is safe during relevant operations, which means there is no connection to the decommissioning process 'end state' after operations have ceased.

Submissions may wish to consider and comment on the following:	
Q6	Should titleholders be required to submit 'close-out' reporting after decommissioning? Please articulate why or why not.
	If yes: What content should be included in the reporting? When should the reporting be required? Should the reporting be made publicly available?

3. Legal responsibility

Statutory responsibility for undertaking decommissioning

3.1 Issues and opportunities

3.1.1 Statutory responsibility for undertaking decommissioning not explicitly stated

A core issue in the decommissioning context is statutory responsibility. There is a potential lack of policy and legal clarity about a number of major issues, including: who bears statutory responsibility for ensuring decommissioning is carried out, the extent to which they are responsible, and the length of time for which they are responsible.

The policy position on statutory responsibility is clear and reflects a key principle for decommissioning: decommissioning is the responsibility of titleholders. Any decommissioning-related obligations contained in a future statutory decommissioning framework will be assigned as such.

There is a strong policy case that because titleholders have been permitted to install infrastructure in offshore areas, they should bear all forms of legal responsibility associated with the infrastructure, including ongoing long-term statutory responsibility and common law liability after operations have ceased, or they have transferred the title or their interest to another party (who becomes the new titleholder).

This is a similar principle to 'polluter pays' regime that is currently in the OPGGS Act. That regime requires a titleholder to contain and stop petroleum spills, to clean up the petroleum, remediate the environment and to carry out environmental monitoring of the consequences of the spill, including the establishment of rights of action by the Commonwealth or a State or Territory that incurs costs in doing work where the titleholder fails to meet its statutory responsibilities. It is very clear in the legislation who is responsible in the event of an oil spill.

In the absence of the current titleholder meeting their obligations, there is an increased risk that the Government, and therefore the Australian taxpayer, might foot the bill. A number of foreign jurisdictions address this risk by making companies who have been titleholders (or licensees) responsible for decommissioning in perpetuity. [Norway](#) implements a model of this in the form of alternative liability. The Norwegian Ministry initially holds the current holder of a license responsible for decommissioning the infrastructure in its license area. If that license holder is unwilling or unable to decommission, the Ministry may then pursue a previous titleholder in the chain of ownership. The [UK](#) takes a similar approach, giving the government powers to 'call back' former titleholder(s) to account for decommissioning costs.

However it is also recognised that, in the face of long-term statutory responsibility and common law liability issues, there is a potential risk that companies might decommission

infrastructure that might otherwise be able to be used for alternative purposes with a view to avoiding future expenses associated with infrastructure left in the marine environment.

3.2 Potential options

3.2.1 Clarify legal responsibility for decommissioning

The OPGGS Act could expressly provide that each member of the titleholder group could be held to account for ensuring that decommissioning obligations are discharged, including responsibility for meeting the total costs of decommissioning. The individual share of fiscal responsibility for decommissioning could be considered a commercial matter to be determined among members of the titleholder group (e.g. through a Joint Venture Agreement), without government intervention.

Clearly outlining legal responsibility for decommissioning within the OPGGS Act should also allow the Government to pursue any costs under statutory rights of action, should a titleholder default on its obligations.

3.2.2 Provide for alternative liability arrangements

The OPGGS Act could be amended to provide that ongoing responsibility for decommissioning does not end at the point at which a title is transferred. Former titleholders would remain responsible for decommissioning irrespective of how many times a title has changed hands, and may be pursued by government to pay necessary costs.

Importantly, if a titleholder transfers their interest in a title they would only be responsible for infrastructure that has been installed before the transfer takes place.

An alternative liability provision should encourage due diligence in transfers of title, and prevent situations where a titleholder transfers their interests to another entity to avoid decommissioning obligations and/or costs, with no consideration or concern as to whether the transferee has financial capacity to ensure that decommissioning is carried out.

Assuming that the OPGGS Act is clarified to make recourse to former titleholders more available to government if current titleholders fail, or are unable, to fulfil their decommissioning obligations, members of joint ventures or other forms of multiple titleholder groups may need to ensure that their contractual arrangements survive the transfer of title and the conversion of title into vacant acreage. This would allow for individual members of the group to be able to be reimbursed for costs they incur in relation to decommissioning. There is discoverable commentary on these types of commercial arrangements in the UK due to their approach to liability in perpetuity.

Submissions may wish to consider and comment on the following:	
Q7	Should current titleholders be made expressly (in the OPGGS Act) liable for the costs of carrying out their decommissioning obligations? Please articulate why or why not.
	If yes: Are there any responsibilities that should be excluded?
Q8	Should alternative liability arrangements be included in a revised framework, providing government with the ability to pursue previous titleholders in the chain of ownership if the current titleholder is unwilling or unable to decommission? Please articulate why or why not.
	If yes: Should this be implemented retrospectively or only prospectively?

Ongoing/long term civil liability

3.3 Issue and opportunity

3.3.1 Civil liability arrangements are not explicitly stated

Long term civil liability is liability for any damage or loss associated with any property left in the marine environment, or associated with other incidents arising from the title area after the end of operations (such as well leakage).

Some industry members have previously indicated their view that, if a titleholder has satisfactorily carried out their decommissioning obligations, they should be released from all future liability associated with the decommissioned site.¹⁹ Without a liability release, if uncertain about whether and when infrastructure might be usefully used in the future, companies may determine it is preferable to decommission it. This might be in order to avoid future expenses associated with property left in the marine environment and unplugged wells. However, this could produce unintended consequences in either greater environmental harm or resources being economically stranded.

¹⁹ 'Satisfactorily' in this context could mean to the satisfaction of government or the Regulator. For example, the surrender criteria stipulate that property must be dealt with and the site rehabilitated to the satisfaction of NOPSEMA; KPMG Report, *Decommissioning Strategy: A New Imperative for E&P Firms* (2015) at <https://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/Documents/enr-decommissioning-strategy-v2.pdf>.

Australia operates a concessional rather than a production sharing contract system.²⁰ As such there is an alternate view and a strong policy case that titleholders should bear all liability associated with the infrastructure, including civil liability after operations have ceased.

At present, civil liability matters are resolved through common law principles. For example, if a titleholder has been negligent in their decommissioning operations (e.g. failure to properly mark property left in the marine environment, or failure to adequately plug a well), they are at risk of being held legally liable (depend on the claimant obtaining a court judgment) for any injury or loss of a third party.

3.4 Potential options

3.4.1 Clarify that civil liability rests with the titleholder in perpetuity

The OPGGS Act could be amended to include provisions that make it clear that, even after decommissioning and block relinquishment, civil liability remains with the titleholder.

This would make civil liability arrangements clear.

Expressly clarifying civil liability within the OPGGS Act would also help better align Australian domestic regulation with international law. This includes relevant International Maritime Organization (IMO) Guidelines and Standards, which state that:

*'The coastal State should ensure that legal title to installations and structures which have not been entirely removed from the sea-bed is unambiguous and that responsibility for maintenance and the financial ability to assume future liability for future damages are clearly established.'*²¹

3.4.2 Enable liability release in appropriate circumstances

The Australian Government could alternatively release titleholders from all liability accrued after a prescribed point or period – for example, after the Joint Authority consents to the

²⁰ Under a concessional system, the state grants a company a permit to explore for and resources within a strictly defined geographic area. The company owns the rights to these resources, which are usually awarded based on some concession, such as taxes or royalties.

The Australian Government and state and territory governments own Australia's mineral and petroleum resources on behalf of the community. Companies that extract mineral and petroleum resources must pay taxes and royalties. These include, as applicable, PRRT and North West Shelf royalty revenues.

Under production sharing arrangements, the state retains ownership of the resource and a company is contracted to extract and develop the resource in return for a share of production.

²¹ Section 3.11, p.296, IMO [Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and the Exclusive Economic Zone \(IMO Resolution A.672\(16\)\)](#). Australia has been on the Council of the IMO for almost 50 years and is currently elected to Category B.

surrender of a petroleum title. Liability release could be specified in the OPGGS Act, and effected through the decision of an appropriate authority such as the Joint Authority.

Advantages of this approach are that it would provide additional certainty to titleholders seeking to relinquish a title or to exit the Commonwealth offshore regime, and it would clarify where liability falls after a decommissioning project is completed.

The disadvantage is that the Australian Government would be required to assume responsibility for, property and permanently plugged wells in the former title area after the titleholder has been released from liability. If an incident subsequently occurred, the Australian Government (and therefore the Australian taxpayer) would be required to bear the responsibility for responding, including meeting associated costs. This risk is heightened where a titleholder is released from liability with infrastructure left in the marine environment. This potentially creates a consequential risk of government's assessment and approvals processes leaning towards complete removal of property – as a means of avoiding future civil liability and protecting the Australian Government (and therefore the Australian taxpayer) from future expense.

Given that, under this option, the government would take on responsibility for the relevant site, it would likely be necessary for the government to take additional steps to ensure that the infrastructure has been decommissioned to an acceptable standard before a liability waiver is granted. This may include:

- More stringent inspection and reporting processes. The option of implementing a 'close-out' reporting process under the Environment Regulations is explored in [section 2.3.1](#) (but is not tied to any assumption of long term responsibility for infrastructure).
- Additional post-decommissioning monitoring requirements. A similar mechanism to that used for greenhouse gas storage formations (detailed in [Annex III](#)) could be implemented for petroleum sites following completion of a decommissioning project – i.e. the government only assumes liability following a monitoring period.
- Creating an industry decommissioning fund similar to the [WA](#) onshore Mines Rehabilitation Fund, or maintenance of financial security for a prescribed period after decommissioning has been carried out (currently the approach taken in the [US](#)).

3.4.3 Government assume infrastructure ownership under an approved program

As a partial solution to the issue of clarity of ongoing civil liability, the government could enter into arrangements with titleholders whereby the government takes ownership of, and therefore assumes liability for, decommissioned infrastructure.

The potential circumstances of such an arrangement have not yet been defined in the Australian context, however it is unlikely that the government would assume such

responsibility for offshore infrastructure unless there is a compelling reason or need for it to do so.

However, other jurisdictions regularly make use of arrangements of this kind. For example, in the [US](#), industry members may choose to donate (rather than scrap) decommissioned structures to coastal States to serve as artificial reefs under the National Artificial Reef Plan. Artificial reefing represents one of only two ways in which industry may be permitted to decommission infrastructure in the US in any way other than complete removal, the other being repurposing for use in the offshore petroleum sector or another industry.

Under these artificial reefing programmes, the US Government takes ownership of the relevant infrastructure, and industry is (following all relevant approvals) no longer responsible for any adverse consequences associated with its being only partially removed or left in the marine environment. Industry is typically required to pay a fee to government (typically half the costs saved by ‘reefing’ infrastructure relative to complete removal and disposal). Further, in most cases responsibility for any damage to the marine environment or to other legitimate users of the sea associated with well incidents (such as leakages) remains with industry.

An artificial reefing programme (or other similar arrangement) might provide industry with greater certainty about their future liabilities and may enable the government to implement more robust environmental protection measures.

However, further research is needed on the extent to which the Australian marine environment would benefit from using decommissioned infrastructure as artificial reefs, and on whether the Australian legal framework might usefully be able to be altered to support an artificial reefing programme.

Drawbacks of this option include that it requires the Australian Government (and therefore Australian taxpayers) to take responsibility for remaining infrastructure, and to take on potential unforeseen risks and costs that may exceed payments made by industry.

Submissions may wish to consider and comment on the following:

Q9

Should titleholders be released from liability in appropriate circumstances?
Please articulate why or why not.

If yes: What are the circumstances that might be appropriate? Which prescribed point(s) might be appropriate? What additional steps should be taken to ensure decommissioning has been undertaken to an acceptable standard?

Q10

Should titleholders ever be released from liability for infrastructure left in the marine environment? Please articulate why or why not.

If yes: What arrangements would be appropriate?

4. Financial responsibility mechanisms

Financial capacity to decommission

4.1 Issues and opportunities

4.1.1 Assessment of financial capacity to decommission is a point-in-time assessment

Decommissioning is typically a costly exercise. Moreover, larger-scale decommissioning projects are generally undertaken at the end of field life, when there is typically little or no ongoing or future project revenue available to directly finance or offset associated costs.

Should a titleholder be or become unable to meet their decommissioning obligations, there is a risk that the Australian Government (and therefore the Australian taxpayer) might be left footing the bill for decommissioning.

Accordingly, it is important that the government is assured that titleholders have sufficient financial capacity to meet their decommissioning requirements and to ensure appropriate financial responsibility mechanisms are in place to underwrite that assurance. This is to mitigate the financial risk to the Australian Government and taxpayers.

A titleholder's financial capacity to meet its obligations is currently only considered at the time of initially granting an Exploration Permit or upon the transfer of a title interest.²² The assessment undertaken by NOPTA considers the financial capacity of a company to undertake its known obligations under the OPGGS regime. Where a decommissioning obligation exists, these are taken into account in determining financial capacity.

There are a number of limitations to the current financial capacity assessment.

1. It is a point-in-time assessment and there is no guarantee that the titleholder's capacity that exists at that time will be available in the future to meet its obligations when they fall due. It also does not account for any additional obligations or activities the titleholder might take on following the assessment.
2. The assessment can only be undertaken when a relevant application is made to NOPTA (e.g. transfer of title).
3. Where there is a change in the corporate structure such as a transfer of ownership at the parent company level, this is not captured currently through the transfer of title requirements under the OPGGS Act.

²² Transfer of titles arrangements are outlined in Part 4.3 of the OPGGS Act.

4.1.2 Concerns expressed about late-life changes in ownership

The transfer of a title or an interest in a title is considered highly relevant to decommissioning, particularly given the financial and legal responsibility associated with existing infrastructure in the title area. It is also, therefore, a particularly relevant trigger point for the assessment of financial capacity to decommission.

Concerns have been expressed over recent years in a number of jurisdictions, both domestically and internationally, about increased numbers of transfers of titles in the later stages of the petroleum lifecycle, in particular transfers from larger companies to smaller ones.

It is acknowledged that as projects reach the later stages of production it can be beneficial for assets to be transferred from larger to smaller companies that may have lower operating costs and are better placed to exploit marginal or late-life fields. This process can have significant advantages in increasing the recovery of petroleum from individual fields.

However, some stakeholders have raised concerns that these types of transfers could increase the risk that a field will not be properly decommissioned once resources are exhausted. These concerns seem to centre on the potential risk that smaller companies may lack the capacity to meet the decommissioning obligations associated with a project given they potentially have a smaller asset base and may be more reliant on a limited and potentially uncertain income stream from the remaining life of the project.

Where relevant the assessment of an application for transfer will, among other things, consider the timing and scale of decommissioning.²³ This should generally ensure that titles are not transferred to entities that lack the capacity to decommission.

4.1.3 Information on titleholders' decommissioning capacity is not required for a change in parent company ownership or control of a titleholder company

As outlined in the transfers and dealings guideline, when assessing whether the transferee(s) has the technical and financial capacity to comply with their obligations, NOPTA will, among other things, consider the timing and scale of any decommissioning obligations.²⁴

However, a change in the parent company ownership or control of a titleholder company, including through a majority change in the ownership of the shares in the titleholder company, technically does not constitute a change in title. That means information on technical and financial capacity to comply with obligations, including decommissioning, is not

²³ Further information on transfers and dealings can be found in NOPTA's [Offshore Petroleum Guideline: Transfers and Dealings Relating to Petroleum Titles](#).

²⁴ Ibid.

required to be provided to NOPTA, nor is the transaction subject to an assessment and decision-making process under the OPGGS Act.

This may be problematic since, when such ownership or control changes, it is likely there will be a change in the titleholder's technical and financial capacity to meet title-related obligations, including in relation to decommissioning.

4.2 Potential option

4.2.1 Allow assessment of titleholder's capacity to undertake obligations to be conducted at any time

The OPGGS Act could be amended to provide that NOPTA could conduct an assessment (for example, an inspection) of a titleholder's technical and financial capacity to comply with their obligations at any time.

This would address the current shortcoming that currently a titleholder's financial capacity is considered only at the point in time when a relevant application is made to NOPTA. It would also address ongoing concerns relating to corporate structure changes, such as a change of ownership at the parent company level, which is not captured through OPGGS Act transfer of title requirements. It would allow NOPTA to conduct an assessment of the titleholder's current and up-to-date financial resources, technical resources and technical advice available to it following a change in corporate structure.

If, when assessed, it was found a titleholder was not able comply with their obligations, a range of compliance and enforcement actions would be available to government. Ultimately this might be the ability for the Joint Authority to cancel the title. There are, however, a number of risks to government in cancelling a title as a response to a situation where it is discovered that a titleholder does not have the capacity to undertake their obligations. This includes the risk that there may be infrastructure remaining in the title area that the titleholder may not have the capacity to decommission or reimburse the costs associated with another party undertaking the activity. In such a scenario, there is a substantial risk the decommissioning activity and/or associated costs would fall to the Australian Government (and therefore the Australian taxpayer).

To mitigate against the above scenario and provide the most certainty that funds will be available at the time of decommissioning, the best option may be that the Australian Government require titleholders to provide financial security for decommissioning (discussed further in [section 4.4](#)). Security could be attached to the title, instead of the titleholder, to strengthen and simplify arrangements (discussed further in [section 4.3.1](#)). If titleholders were required to put up bonds or other securities to meet their decommissioning obligations these securities could be used to satisfy decommissioning financial capacity requirements.

Submissions may wish to consider and comment on the following:

Q11

Should government be able to conduct assessments of a titleholder's capacity to fulfil its obligations at any time? Please articulate why or why not.

If no: What alternative approach is proposed to ensure titleholders have the continued capacity to fulfil their obligations?

Financial securities for decommissioning

4.3 Issues and opportunities

4.3.1 Australia does not currently require provision of financial security for decommissioning

As outlined in [decommissioning principle 4](#), the Australian Government expects titleholders to consider decommissioning, including their capacity and planning to fund it, early and often. This is a commonplace practice, with many titleholders incorporating decommissioning into their project planning like any other stage in the lifecycle of a title.

Currently there are financial assurance requirements²⁵ that require titleholders to, at all times while their title is in force, maintain financial assurance sufficient to give them the capacity to meet costs, expenses and liabilities arising in connection with, or as a result of:

- the carrying out of a petroleum activity
- doing any other thing for the purpose of the petroleum activity
- complying (or failing to comply) with a requirement under the OPGGS Act, or a legislative instrument under the Act, in relation to the petroleum activity.

Forms of financial assurance that may be maintained include, but are not limited to, insurance, self-insurance, bonds, the deposit of an amount as security with a financial institution, an indemnity or other surety, a letter of credit from a financial institution, or a mortgage. These forms were chosen following consideration of forms of financial assurance required in other jurisdictions and sectors, and on the basis that they would be likely to yield funds (i.e. they are sufficiently liquid) when necessary.

The financial assurance requirements extend to the costs of complying or failing to comply with a requirement under the OPGGS Act – including the costs of complying with a direction issued by NOPSEMA. Directions may be given under the OPGGS Act in relation to any matter for which regulations may be made, as well as specifically in relation to remedial

²⁵ OPGGS Act s 571.

matters such as removal of property, plugging and abandonment of wells, and rehabilitation of a title area.

A titleholder must demonstrate that sufficient financial assurance is in place before NOPSEMA can accept an environment plan for a petroleum activity, noting that an accepted environment plan for an activity must be in place before a titleholder may carry out that activity in Commonwealth waters.

The form of financial assurance must also be acceptable to NOPSEMA. For NOPSEMA to be satisfied that sufficient financial assurance is being maintained, the titleholder must be able to draw on the financial assurance at the time that costs, expenses or liabilities arise.

The financial assurance mechanism within the OPGGS Act and Environment Regulations has been constructed and applied such that titleholders are required to meet extraordinary costs, expenses and liabilities that they might not otherwise have the capacity to meet, such as the costs of responding to an offshore incident.²⁶

While this financial assurance mechanism is already in place, it may be insufficient in its current form and application to ensure decommissioning costs are met in all circumstances, because:

- there is no express provision enabling government to directly access financial assurance instruments of the titleholder if it becomes necessary to do so – i.e. these instruments (and access to the actual funds) may not be directly accessible by government if it becomes necessary for government to arrange for any appropriate actions to be undertaken, should a titleholder fail to undertake them
- the policy intent behind existing financial assurance requirements was that they were expected to deal with “extraordinary” costs, such as oil spill clean-up, not “ordinary” costs of undertaking planned activities in the lifecycle of a project, such as completion of a work program, or the costs of decommissioning.²⁷ Consequently a policy change would be necessary in order to potentially deliver appropriate outcomes under current financial assurance arrangements for decommissioning purposes.²⁸

The lack of appropriate financial security arrangements carries the risk that, where a titleholder fails to decommission appropriately, government will be obliged to carry out the necessary work in order to meet community expectations and international legal

²⁶ [Explanatory Memorandum, Offshore Petroleum and Greenhouse Gas Storage Amendment \(Compliance Measures No 2\) Bill 2013](#).

²⁷ Ibid.

²⁸ OPGGS Act s571.

requirements.²⁹ This will come at a cost to the Australian Government (and therefore the Australian taxpayer).

It is important to note that there have not been any circumstances to date in Australia whereby a titleholder has not had sufficient financial capacity or has been unwilling to undertake their decommissioning obligations. In addition, industry members are mindful about their social responsibilities and public expectations in this space (commonly known as ‘social license to operate’).

However, in the face of a looming decommissioning liability in decades to come, this is not a sufficient reason to overlook implementing robust financial security requirements at this point in time. Financial security requirements are common in many industries as a safeguard against damages and costs.

Further, such requirements are common in comparable international and domestic jurisdictions in relation to offshore petroleum or onshore resources activities. The [UK](#), [Norway](#), the [US](#) and [Canada](#) either expressly require, or empower an entity to require, security for decommissioning offshore petroleum infrastructure (further detail at [Annex II](#)). Domestically, Western Australia, Victoria and Queensland all have mining-related financial security requirements, as does the Commonwealth greenhouse gas storage regime (further detail at [Annex III](#)).

Anecdotal evidence also suggests that imposing such requirements facilitates better cost estimations, improves project planning by industry, and encourages early engagement with regulatory agencies on decommissioning proposals.

The department considers fundamental features of an effective financial security mechanism are that it is sufficiently liquid, accessible by the Australian Government if necessary, and payable on demand.

To strengthen and greatly simplify security arrangements, particularly at the time of transfer of a title, appropriate forms of financial securities could be assigned to a title, rather than a titleholder. Such a mechanism is already in place in the greenhouse gas storage regime in the OPGGS Act where, in effect, the value of the security passes into the value of the title and will be recovered by the transferor from the transferee, or from any members of the transferee group which are not already members of the titleholder group, as part of the purchase price for the title.³⁰

²⁹ For example, under Article 60 of the [United Nations Convention on the Law of the Sea](#) (UNCLOS), ‘any installations or structures that are abandoned or disused must be removed to ensure safety of navigation, taking into account any generally accepted international standards established in this regard by a competent international organisation.’

³⁰ Security may be required from greenhouse gas titleholders ‘in respect of compliance with the applicable statutory obligations by the registered holder for the time being of the permit, lease or licence’ (see, for

4.4 Potential options

4.4.1 Implement an express statutory requirement for financial security for decommissioning

This option provides the most reliable financial security and protection for the Australian Government (and therefore the Australian taxpayer), to directly mitigate the risk that the costs of decommissioning might fall to it.

Titleholders would be required to establish and provide financial security sufficient to discharge their decommissioning obligations.

This requirement would be imposed at a relevant trigger point(s). For example, a titleholder could be required to demonstrate to the Joint Authority lodgement of financial security when applying for a petroleum title that involves the drilling of wells or the construction or installation of infrastructure. The requisite security amount held could then be assessed and updated regularly throughout the life of the title, to reflect the inventory of infrastructure at any point in time. Financial security arrangements could also be assessed following the submission of an environment plan.

No consideration has been given at this stage to the selection of the entity that would be responsible for regulating the provision, in terms of conducting assessments and overseeing maintenance of financial security for decommissioning purposes.

Similar to existing financial assurance requirements in the OPGGS regime, acceptable instruments may include:

- bonds (including surety bonds)
- guarantees (including parent company and third party guarantees)
- deposits of funds with a financial institution
- letters of credit
- insurance.

Other forms of security could also be considered on a case-by-case basis, subject to any applicable financial legislation and government policy.

The amount of security required would be determined on a case-by-case basis based on an estimate of future decommissioning costs, taking into account the number of facilities, wells and other infrastructure in the title area and the costs associated with their complete removal.

example, OPGGS Act section 454, paragraph 430(4)(a)). Security provided by a titleholder is taken to be in force in relation to the title (OPGGS Act ss 31(1)). Where a security is in force in relation to a greenhouse gas assessment permit, holding lease or injection licence and a transfer of the title is registered, then the interest of the transferor in the security is transferred to the transferee (OPGGS Act paragraph 455(c)).

Costs would need to be carefully estimated, to ensure the security required accurately reflects the amount needed to fully decommission the title area. To minimise risk to the Australian Government (and therefore the Australian taxpayer), the amount of security required may be conservatively estimated. This could also provide an impetus for titleholders to decommission regularly, as appropriate, in order to reduce the amount required to be held as security.

The amount of security required could also be varied by the overseeing entity if necessary (e.g. depending on the decommissioning approach ultimately chosen and approved), or on application by the titleholder. Further, consistent with existing financial assurance arrangements, compliance with financial security requirements could be periodically assessed through routine inspections of companies' financials.

To ensure security is accessible to government in the event of default, it would also be a statutory requirement that security is sufficiently liquid and payable to government on demand. Security amounts would be reduced or released as decommissioning is carried out by the titleholder.

Statutory financial security requirements have been implemented in a number of other comparable domestic and international jurisdictions:

- [Victoria](#) (Australia): all operators must obtain a rehabilitation bond that is acceptable to the Minister before carrying out any petroleum operations.
- [US](#): all lessees are required to maintain a bond to secure compliance with obligations under the lease. Additional security may be required at government's discretion.
- [Canada](#): all applicants for activity authorisations must prove financial responsibility for meeting obligations and responding to incidents before commencing an activity.

The key advantage of this option is the protection of the Australian Government (and therefore the Australian taxpayer) from decommissioning costs in the event of default by a titleholder. This option also provides clarity to industry on their financial security obligations.

This option would further encourage titleholders to consider decommissioning during project planning and factor this into their assessment of the project's commercial viability, and consider their decommissioning obligations regularly throughout the project's life.

A disadvantage of this option is a potential increase in financial burden for companies, which may act as a barrier to investment. The administration of securities can also be potentially complex. However, these are concerns associated with all financial security arrangements, and can be managed through careful planning and cost estimation. The complexity involved in administering securities also varies with the instrument or approach selected. If aligned with the current financial assurance approach, choice of financial security instrument would be largely left to the commercial discretion of titleholders, although the form selected would need to be assessed and approved by government.

This option is more consistent but also less flexible than alternatives involving the exercise of discretion (e.g. government *may* require financial security), and does not allow government to adjust financial security arrangements around a titleholder's compliance history, or current policy settings.

4.4.2 Require financial security for decommissioning on a discretionary basis

Government could be empowered to require titleholders to establish financial security for decommissioning if it is deemed necessary to do so. This could follow a request for information regarding financial status, projected decommissioning costs, and other relevant matters.

The requirement to establish security, as well as the form and quantum of security required, could, for example, be set out in a notice (direction) issued to the titleholder. Non-compliance would be grounds for government to take enforcement action, potentially including forbidding operations to commence until security has been provided in accordance with the notice, or cancellation of a title.

Consistent with the statutory requirement option in [section 4.4.1](#), acceptable forms of assurance could include bonds, parent company guarantees, deposits of funds, letters of credit, and insurance. The amount of security required could be varied if necessary, and compliance with any financial security requirements imposed could be assessed and updated as necessary through routine inspections.

Discretionary security arrangements have been implemented in a number of jurisdictions:

- [Norway](#): the Ministry may decide that a licensee shall provide such security as approved by the Ministry for fulfilment of obligations under the license, as well as for future liabilities. The Ministry has indicated that in practice this discretion is almost always exercised.
- [UK](#): the Secretary of State may, after consulting with the Treasury, require a person to take actions, including establishing financial security.
- Western Australia: the Resources Minister may require lessees to lodge security for the fulfilment of obligations under their lease – including obligations relating to mine closure.

Similar to the statutory requirement option in [section 4.4.1](#), the key advantage of this option is the protection of the Australian Government (and therefore the Australian taxpayer) from decommissioning costs, however the element of discretion presents some risk for government in identifying when this option should be appropriately exercised.

In contrast to the statutory requirement option, this option also provides government with greater flexibility to take into account matters such as the titleholder's financial strength and compliance history, and current policy settings. It also gives government greater scope to limit the financial burden on industry using a risk-based approach.

However, this option has significant disadvantages arising from its discretionary nature. Administering securities can be complex, depending on the instrument selected. Introducing discretion could create uncertainty and inconsistencies for titleholders, which introduces further complexity to investment decisions. It also results in the administering authority assuming a degree of risk (e.g. if the discretion to require security is not exercised, and the titleholder subsequently cannot or does not meet its obligations).

To reduce the risk to the Australian Government and given the size of the liabilities in question, it is likely in practice that this discretion would be exercised in a risk-averse manner so as to require most or all titleholders to maintain security, essentially making it akin to a statutory requirement.

4.4.3 Establish a dedicated decommissioning fund

4.4.3.1 Individual

Titleholders could be required to contribute periodically to a dedicated decommissioning fund that is directly tied to the title and its associated decommissioning costs. This might be established at the start of the project or at predetermined points, such as prior to installing new infrastructure or when a certain portion of the reserves have been exploited. The amount contributed at each interval might depend on overall decommissioning costs, estimated at the start of the project and updated throughout, with the timing of such contributions possibly structured around the timing of revenue streams; i.e. more contributed in higher-revenue periods.

At the cessation of production, the fund should be 'full', and then used to cover the total cost of any decommissioning that remains to be done associated with the project. Access to the fund would be allowed only as a decommissioning phase approaches, and then only to cover decommissioning costs. This would be linked to decommissioning planning documents (discussed in [section 2.2](#)). Government would also be permitted to access the fund to progress the decommissioning work if the titleholder defaults on its obligations.

4.4.3.2 Pooled

As an alternative to a dedicated decommissioning fund for each title, titleholders could contribute periodically (e.g. through levies) to a pooled decommissioning fund, which would be used to cover the costs of decommissioning in the event of individual default. Potentially, titleholders could secure a partial or whole refund of their contributions following satisfactory completion of their own decommissioning project.

A pooled fund is not intended as a means of sharing or subsidising the decommissioning liability. If the fund was used by government to finance decommissioning, the defaulting titleholder would be required to reimburse the fund. However, the existence of the fund would mean that in the interim the necessary work could be undertaken with minimal immediate financial risk to the Australian Government and the Australian taxpayer. This

approach could potentially be combined with regular oversight of financial responsibility of the titleholder. In the circumstance where the relevant titleholder could or did not reimburse the fund, the fund or interest earned on the fund would cover decommissioning costs.

Arrangements for pooled funds have been implemented in a number of other jurisdictions:

- [Western Australia](#): licensees must contribute to a pooled fund for the rehabilitation of abandoned mines. Interest from the fund can be used to rehabilitate legacy mine sites.
- [Canada](#): applicants for activities may prove they have sufficient resources by participating in a pooled fund, maintained at a minimum of \$250 million.

A pooled fund allows titleholders to meet financial security obligations at lower individual costs, and may encourage collaboration between titleholders. Interest from a pooled fund could be used to decommission legacy sites in the event that a defaulting titleholder cannot be pursued to reimburse funds.

The key disadvantage is that titleholders could, depending on the fund design, be required to contribute the full costs of decommissioning ahead of and in addition to paying for the decommissioning project itself (i.e. if the money in the fund was reimbursed to the titleholder only after completion of the decommissioning work). This creates a cash flow issue, as opposed to net financial burden. A fund may also prove difficult for more mature projects, given the titleholder could be required to contribute total projected costs over just a few years.

Using a pooled fund also creates the risk that a defaulting titleholder would contribute less than their total decommissioning costs, with the shortfall in theory picked up by the fund or the Australian Government. Similarly, there is also a risk of compliant titleholders inadvertently subsidising their noncompliant counterparts.

4.4.4 Expand existing financial assurance requirements

Amendments could be made to the OPGGS Act and/or regulations to bolster the existing obligation for a titleholder to maintain, throughout the life of the title, financial assurance that is sufficient to meet the costs, expenses and liabilities arising in connection with their activities. The amendments could introduce an arrangement whereby titleholders must demonstrate financial assurance specifically for decommissioning costs at various points in the lifecycle of the title.

The key disadvantages are that, under the existing financial assurance requirements, there is no express requirement that funds are liquid and accessible to government when necessary. This option would rely on the discretion of an administering authority, which may create risk in the event that the discretion is not exercised. In addition, such a financial assurance assessment is only valid at the point in time when the assessment is undertaken. Company structures and financial arrangements are dynamic and there are very few

practicable options available to government to continually re-assess the risk of a company failing to deliver on its decommissioning obligations.

Mechanisms could be put in place to improve the operation of this option (e.g. requirements for liquid securities and government access). However, this would essentially be equivalent to the statutory requirement option in [section 4.4.1](#).

Submissions may wish to consider and comment on the following:

Q12

Should industry be required to hold and demonstrate sufficient financial security to meet its decommissioning costs?
Please articulate why or why not.

If yes: What form of security should be implemented? How should the security be administered? When should the security be required and how might this be triggered? Should the security requirement apply to all titleholders (i.e. current titleholders as well as new ones)?

5. Post-title compliance and enforcement

Relevant duties and obligations for remedial directions

5.1 Issue and opportunity

5.1.1 Remedial directions do not reinstate relevant duties and obligations

While the OPGGS Act enables NOPSEMA to issue a [remedial direction](#) to a person who was a titleholder, this is limited to directing the person to undertake certain activities.³¹ The issuance of a remedial direction does not reinstate all the duties and obligations that would have applied to the person when they were a titleholder, e.g. the requirement to have an environment plan in force prior to undertaking an activity, and to comply with the environment plan. Similarly, there may be limitations on NOPSEMA's capacity to undertake its normal regulatory activities (inspection, investigation and enforcement) in relation to any of the activities that are the subject of the remedial direction, where there is no current titleholder.

As a result there may be limitations on the ability of government and regulators to ensure that the activities undertaken by a person in accordance with the remedial direction are undertaken to a standard and in a manner that affords adequate protections to safety of persons and the environment.

5.2 Potential option

5.2.1 Ensure former titleholders have appropriate duties and responsibilities

The OPGGS Act could be amended to ensure that a former titleholder operating under a [remedial direction](#) is subject to all the duties and responsibilities as if it were operating under their previous title. This includes oil spill emergency planning and appropriate financial assurance obligations. Any amendments would also need to consider NOPSEMA's ability to apply relevant powers under the OPGGS Act to monitor and enforce compliance with safety, integrity and environmental requirements.

Submitting risk management plans

5.3 Issue and opportunity

5.3.1 Former titleholders cannot submit and have approved risk management documents

While the OPGGS Act allows NOPSEMA to require a former titleholder to undertake necessary remedial work under a remedial direction, the OPGGS regulations only enable

³¹ OPGGS Act s 587.

current titleholders to submit environmental and well integrity risk management plans (with an operator required to submit the safety case). There is therefore no scope for NOPSEMA to assess and accept such risk management plans from former titleholders. This is identified as a deficiency in the ability of the regulatory framework to deliver optimal safety, environmental and structural integrity outcomes. These applications are the documents through which the former titleholder would be able to outline the impacts and risks associated with the remedial actions they would take, and how they intend to ensure they will be reduced to ALARP and to acceptable levels.

Where this issue has arisen to date, the government and former titleholders have worked together within the existing legislative framework to ensure the former titleholder is able to submit the appropriate risk management plans in order to carry out the activity. While this process enables risk assessments to be undertaken, the department does not consider this to be an appropriate permanent solution to deal with decommissioning. Further, the process is unsuited to risk assessment when an emergency response (e.g. responding to well leaks) is required, because this would require a company to make an application for the relevant title before any risk assessment plans could be submitted and accepted by NOPSEMA. The company would also need to wait until the title is granted before commencing activities.

5.4 Potential options

5.4.1 Expand the range of persons able to submit a risk management plan

The OPGGS regulations could be amended to specifically enable a former titleholder to submit a risk management plan (e.g. environment plan or WOMP) prior to commencing an activity. Similar to the option in [section 5.2.1](#), the former titleholder would need to be subject to all the duties and responsibilities as if it were operating under their previous title, and amendments would need to consider NOPSEMA's ability to monitor and enforce compliance with relevant requirements.

A significant advantage of this option is that it would enable NOPSEMA to ensure that impacts and risks associated with activities conducted by former titleholders are properly identified, and control measures proposed to reduce those impacts and risks to ALARP and to acceptable levels.

As an alternative to specifically enabling a former titleholder to submit risk management plans, the regulations could be amended to enable any 'person' to submit a plan. This approach has the advantage of enabling risk assessment for operations undertaken by persons who are not former titleholders – e.g. where a third party undertakes to decommission infrastructure in a vacated title area.

However, it is difficult to envisage that operations to remove property or to respond to a well containment issue in a vacated area would be controlled by an entity other than the former titleholder. The requirement to take remedial action is imposed on the former titleholder. While third parties often undertake particular activities (e.g. conducting surveys, operating a

facility or removing property), their services are typically performed under contract with the titleholder. These arrangements are covered by risk management plans submitted by current titleholders, and could similarly be included in plans submitted by former titleholders.

5.4.2 Establish a new decommissioning title

A new type of title could be created that could be issued to a former titleholder in order to enable them to seek relevant approvals for and then carry out decommissioning or ongoing post-decommissioning monitoring activities for the relevant block(s) in which infrastructure remains.

Given that it is expected that decommissioning will be undertaken before blocks become vacant acreage, it is envisaged this type of title would be issued to conduct decommissioning activities infrequently.

Under such a title, the titleholder would have a targeted set of rights and obligations relating to undertaking decommissioning and remedial activities in the relevant title area. The titleholder would not be permitted to explore for petroleum or carry out petroleum recovery operations in the title area. They would, however, be subject to ordinary risk management requirements under the OPGGS Act and regulations. This includes the requirement to have in place NOPSEMA-accepted risk management documents prior to conducting any activities. These documents would outline how the titleholder will reduce environmental and well integrity risks to ALARP, and in the case of environmental risks, acceptable levels. Oil spill emergency planning and financial assurance obligations would also be placed on the holder of the decommissioning title.

Submissions may wish to consider and comment on the following:	
Q13	Should a former titleholder operating under a remedial direction be subject to all the duties and responsibilities as if it were operating under their previous title? Please articulate why or why not.
	If no: Should certain duties or responsibilities be excluded or additional duties or responsibilities included?
Q14	Should a former titleholder be permitted to submit risk management plans? Please articulate why or why not.
	If yes: What limits, if any, should be placed on this?

Q15	Should a 'person' (or another entity other than a former titleholder) be permitted to submit risk management plans? Please articulate why or why not.
	If yes: Who should be allowed to submit these plans?
Q16	Should a new category of title be established to enable a former titleholder to have a current title under which to undertake relevant decommissioning and remediation activities with relevant regulatory approvals? Please articulate why or why not.
	If yes: What limits, if any, should be placed on this?

Circumstances for issuing remedial directions

5.3 Issue and opportunity

5.3.1 Remedial directions cannot be issued to former titleholders in some circumstances

Under the OPGGS Act, remedial directions may not be issued to a former titleholder if the title has been surrendered.³² This is because (in theory) satisfying the surrender criteria should be sufficient to ensure that appropriate remedial action has been taken, to the satisfaction of NOPSEMA, before the title ends.³³

However, in certain cases consent to surrender may be granted despite the fact that, with the knowledge of the Joint Authority, the titleholder has not adequately rehabilitated the relevant site. In the same vein, a consent to surrender granted on the basis of full compliance, a compliance issue may be identified after the Joint Authority has granted consent.

Further, remedial directions cannot be issued to a former titleholder where that titleholder has transferred its interest in the title (that is, remedial directions to a former titleholder can only be given to the person who was the titleholder at the time the title was revoked, cancelled, expired or terminated).³⁴

³² Special prospecting authorities and access authorities are excepted.

³³ OPGGS Act s 270.

³⁴ Full list of events outlined in OPGGS Act s 587.

In the event the titleholder at the time the title ended is not capable of carrying out the necessary work, decommissioning costs may therefore fall to the Australian Government and (and therefore the Australian taxpayer).

While there is arguably an existing mechanism for NOPTA to refuse to approve transfers of title where it is not satisfied that the proposed transferee(s) will be able to carry out their decommissioning obligations, there are a number of drawbacks including that it is not a guarantee of a titleholder's ongoing capacity (discussed further in [section 4.1](#)).

Further, under current arrangements, although a previous holder of the title may have selected, designed and installed the infrastructure, and derived substantial benefit from using that infrastructure, it is unlikely they can be held to account for the costs of eventual decommissioning if they have transferred the title.

However, counter to this is the argument that transfers are a commercial arrangement whereby the transferee purchases a complete set of assets and liabilities, thereby acquiring responsibility for everything as a result of that transfer, including the responsibility to decommission. Issues in relation to transfers of titles are explored further in [section 4.3](#).

On balance, to avoid an outcome in which the Australian Government (and therefore the Australian taxpayer) is required to take on the financial costs of decommissioning (e.g. if the immediate former titleholder both fails to properly decommission and fails to reimburse the Australian Government for the costs of taking action), it is the department's view that industry should retain ultimate responsibility. However, as a matter of policy, titleholders should not be responsible for infrastructure that was installed after they ceased to hold the title.

5.4 Potential option

5.4.1 Ensure remedial directions can be issued to all former titleholders

There may be circumstances in which a titleholder is given consent to surrender their title despite the fact that they have not adequately rehabilitated their title area; for example, if a compliance issue is identified after the title has been surrendered. There is therefore a strong policy case for amending the OPGGS Act to enable NOPSEMA and the Minister to issue remedial directions to former titleholders in cases where the title has been surrendered, to increase the range of available compliance tools.

To address the situation where a title is transferred to a company or joint venture without the subsequent capacity to decommission (or where a transferee subsequently refuses to decommission), NOPSEMA and the Minister could be permitted to issue remedial directions to former titleholders that transferred their interest in the title. Further, in all cases where a title has come to an end, NOPSEMA and the Minister could be permitted to issue remedial directions to all former titleholders (rather than only the immediate former holder). This would ensure titleholders further up the chain of ownership (including the entity that originally

installed the infrastructure) can be pursued if necessary. This proposal is supported by approaches taken overseas:

- In the [UK](#), the Secretary of State (through the Department of Energy and Climate Change) may require any person who could have been required to submit a decommissioning program to carry one out;³⁵ and
- In [Norway](#), the assignor of a license is alternatively liable for decommissioning obligations (subject to certain conditions).³⁶

Advantages of these options include providing government with greater scope to pursue cases of non-compliance (e.g. where issues are identified after finalising surrender or transfer of title), and ensuring that entities who have installed infrastructure (and derived a benefit from its use) may be held responsible for its decommissioning. Knowing that NOPSEMA is able to pursue *all* cases of non-compliance may also encourage titleholders to be more cautious in their dealings (e.g. checking the credentials of potential transferees) and to ensure full compliance with legislative and regulatory requirements in relation to decommissioning.

Expanding the application of remedial directions may also support other options aimed at ensuring that the Australian Government is not ultimately responsible for decommissioning costs, such as imposing joint, several and alternative responsibility for decommissioning costs.

The disadvantage of these options is that they may increase uncertainty for former titleholders, noting in particular the potentially long lifecycle of petroleum infrastructure. The OPGGS Act obligations and duties placed on the subject of a remedial direction are different to those placed on titleholders. As such, this creates some challenges for enforcement.

The measures proposed here are intended to ensure that NOPSEMA and the Minister can pursue compliance issues when necessary. It is not intended that NOPSEMA or the Minister would substantially increase the use of remedial directions if these measures were implemented. The department also acknowledges that in some cases there may not be an entity to issue a remedial direction to (e.g. if the relevant company has wound up, or is no longer conducting business in Australia), and emphasises that the preferred option is to always ensure that decommissioning is undertaken before the title comes to an end.

³⁵ Petroleum Act s 34.

³⁶ Petroleum Activities Act s 5-3. The Ministry may pursue the current licensee to carry out decommissioning obligations, ahead of the immediate former holder, then entities further up the chain of ownership. Licensees are not obliged to decommission infrastructure installed *after* ownership was transferred.

Submissions may wish to consider and comment on the following:

Q17

Should NOPSEMA and the Minister be permitted to issue remedial directions to *all* former titleholders?

Note: This would be regardless of how the relevant title came to an end (e.g. including surrender and transfer), and where in the chain of ownership the relevant titleholder sits.

6. Other issues and opportunities

Research and collaboration

6.1 Issues and opportunities

6.1.1 Research

Decommissioning-related research helps inform government decision-making by expanding the evidence-base from which government decisions are made.

Current environmental research appears to focus on the environmental impact of decommissioning processes and infrastructure left in the marine environment. There is also work being undertaken on technical challenges, such as those relating to property removal and well plugging and abandonment techniques and technology, as well as ongoing research into the materials used during the infrastructure build process to help facilitate more efficient and effective end-of-life decommissioning.

An area of particular environmental research interest, which has been raised with the department by various stakeholders, is the environmental impact of infrastructure left in the marine environment, such as through reefing. The [US](#), for example, allows disused offshore property to be used as artificial reefs. Some scientific research points to a number of advantages, including that structures placed on the seabed may become havens for marine life or contribute to connectivity conservation, as well as provide enhanced opportunities for tourism and fishing.³⁷ However, each marine environment is different and there has been little research to date into the extent to which parts of the Australian marine environment would benefit from using decommissioned property as artificial reefs. Such research could also be a useful input into the Australian Government's consideration of whether the Australian policy and regulatory framework might support an artificial reefing programme.³⁸

6.1.2. Collaboration

Collaboration has many advantages, including idea sharing, better division of labour and use of existing resources, and potential cost savings.

³⁷ See e.g. Pickering H, Whitmarsh D and Jensen A, *Artificial Reefs as a Tool to Aid Rehabilitation of Coastal Ecosystems: Investigating the Potential* 37 *Marine Pollution Bulletin* 8-12 (1998); Whitmarsh D, Santos M N, Ramos J and Monteiro C C, *Marine Habitat Modification through Artificial Reefs off the Algarve (Southern Portugal): An Economic Analysis of the Fisheries and the Prospects for Management* 51 *Ocean & Coastal Management* (2008).

³⁸ Techera E J and Chandler J, *Offshore Installations, Decommissioning and Artificial Reefs: Do Current Legal Frameworks Best Serve the Marine Environment* 59 *Marine Policy* (2015).

Collaboration can variously be undertaken by like and/or different stakeholder groups including the research sector, industry sectors, government, and other interested parties such as fishing groups, environmental organisations and the community.

Internationally, governments of comparable offshore petroleum regimes are also seeking to encourage collaboration to optimise resource recovery and increase the use of existing infrastructure. For example, the [UK](#) released [The Maximising Economic Recovery Strategy for the UK](#) (MER strategy), supported by legislative obligations in the *Energy Act 2016*, and the UK Oil and Gas Authority's (OGA) decommissioning strategy. The MER strategy obliges operators and other relevant persons to:

*'...take the steps necessary to secure that the maximum value of economically recoverable petroleum is recovered from the strata beneath relevant UK waters.'*³⁹

The Australian Government expects titleholders to ensure that infrastructure supports the optimum long-term recovery of petroleum prior to its decommissioning, so that resources do not become economically stranded.

Given the developments occurring internationally, industry may wish to consider options to help ensure that opportunities for collaboration and the continued use of offshore petroleum infrastructure in Commonwealth waters are explored prior to its decommissioning.

6.1.3 Current Australian collaboration and research

Within Australia, collective research, analysis and collaboration is being undertaken on decommissioning. Some examples of current Australian collaboration and research projects relating to decommissioning are outlined below.

National Decommissioning Research Initiative

The Industry Growth Centre, [National Energy Resources Australia](#) (NERA), is, as part of its scope of work, assisting the energy sector to gain a deeper understanding of the economic, technical and environmental aspects of decommissioning offshore infrastructure.⁴⁰

NERA is working with petroleum companies to establish a National Decommissioning Research Initiative (NDRI) to provide an independent scientific evidence-base to better

³⁹ [The Maximising Economic Recovery Strategy for the UK](#) (2016), [7].

⁴⁰ As outlined in its [Sector Competitiveness Plan](#), NERA recognises that, to be competitive in the resources sector, Australia will need to be a centre of innovation across the life cycle of energy resources (including decommissioning), and within the community of supporting technology companies and service providers.

understand the importance of man-made infrastructure in the Australian offshore marine environment.⁴¹ The NDRI will commission a research project to:

1. Investigate the impacts and benefits of offshore oil and gas infrastructure on marine biodiversity, ecosystems and commercial fish stocks.
2. Investigate the impact of contaminants associated with oil and gas marine infrastructure (including future material degradation) on the environment.
3. Determine the socio-economic value of in-situ decommissioning or relocation of offshore decommissioning.

The NDRI will administer independent processes to commission, review, and publish, impartial and credible research findings that answer questions identified by industry, and informed by stakeholders, to better understand the acceptability of environmental impacts from the use of offshore infrastructure.

Blueprint for Marine Science 2050

The [Western Australian Marine Science Institute](#) (WAMSI) [Blueprint for Marine Science 2050](#) (the Blueprint) aims to guide long-term collaboration between all sectors operating in the marine environment.⁴²

WAMSI's 2016 project '[Providing an Evidence Base to Support Decommissioning of Offshore Infrastructure](#)', investigated the environmental and socioeconomic impacts of decommissioning.

In April 2018, WAMSI received \$2.6 million funding from the WA Government to support the next phase of implementation for the Blueprint. This includes continuing to provide scientific support to help inform decisions for decommissioning offshore petroleum infrastructure within WA coastal waters.

Further information on WAMSI, the Blueprint and projects WAMSI is involved in can be found on the [WAMSI website](#).

Exmouth Integrated Artificial Reef project

NERA and industry funding has also resulted in the \$1 million Exmouth Integrated Artificial Reef project, which aims to enhance marine habitat and recreational fishing opportunities by creating Australia's first integrated artificial reef and the largest purpose-built reef habitat in Western Australia. A total of 55 reef modules ranging in height from one to 10 metres are being placed in a specific formation across two acres on the ocean floor. Six steel tanks,

⁴¹ Sponsoring companies include Woodside Energy, Chevron Australia, Vermilion Energy, BHP Billiton, ExxonMobil Australia, ConocoPhillips Australia, Shell Australia and Quadrant Energy.

⁴² WAMSI is a collaboration of State, Federal, industry and academic entities cooperating to create benchmark research and independent, quality scientific information.

which are repurposed buoyancy modules from a retired offshore facility operated by BHP form the key stones of the reef. The project is a collaboration between NERA, Subcon International, BHP, Recfishwest and Curtin University. Further information on the project can be found on the [NERA website](#).

Decommissioning techniques and supply chains

NERA is also looking at different decommissioning techniques, exploring multi-sector supply chains, and aims to help coordinate industry's supply chain efforts to address and develop solutions to key decommissioning challenges.

Comparative Assessment Guidelines

On 4 July 2018, decision-making consultants Catalyze facilitated a workshop between APPEA, petroleum industry companies and key stakeholder groups (including government departments and fishing groups) to understand perceptions of decommissioning. The workshop agreed that there would be value in industry developing Comparative Assessment Guidelines, in line with a similar guideline developed in the UK. Such a guideline would be intended to provide a clear process for companies and stakeholders to input issues of significance and understand how to achieve the best outcome from decommissioning.

Australian Petroleum Production and Exploration Association (APPEA) Decommissioning Committee

The APPEA Decommissioning Committee was formed in 2016 and involves Vermilion Energy, ExxonMobil, Chevron Australia, BP, BHP Billiton, ConocoPhillips Australia, Shell Australia, Quadrant Energy, INPEX, Woodside Energy and Eni.

The Committee's objective is to ensure that decommissioning, when executed, delivers the best outcome when considering safety, environmental and cost factors and supports the maximum extension of field life.

The Committee has five priority areas of focus – the regulatory framework, coordinated research, sharing of industry learnings, stakeholder relationships and engagement with the supply chain.

Submissions may wish to consider and comment on the following:	
Q18	Is there additional research (and/or development) being undertaken relevant to decommissioning that government should be aware of?
	If yes: What research/development is being undertaken and by whom? What is the timeframe for this research/development? Will the results be made public and if so how/where? Please provide details.
Q19	Is there additional research that should be undertaken on decommissioning, and in particular on environmental standards? Please provide details.
	If yes: What areas should be researched? Should government be involved? Which entities should be involved and what should their roles be?
Q20	Should more be done to encourage industry collaboration to help ensure that options for the continued use of offshore petroleum infrastructure in Commonwealth waters are explored prior to its decommissioning? Please articulate why or why not.
	If yes: What are the current barriers to collaboration? What is suggested to break these down? Who should be responsible for this? Should government be involved? If so, how?

Decommissioning market opportunities

6.2 Issues and opportunities

Decommissioning activities are on the rise worldwide and may present a new growth opportunity for Australian companies both locally and internationally; in particular in the Asia-Pacific region, where Wood Mackenzie estimates there are approximately 35,000 offshore wells, 2,600 platforms, and 55,000 kilometres of pipeline, potentially costing more than US\$100 billion to decommission.⁴³

Australia is well regarded for its research and development, and ability to commercialise innovative solutions for the resources sector. Our \$90 billion mining equipment, technology

⁴³ Wood Mackenzie (2018). *Decommissioning Asia Pacific on a budget*, 25 January 2018.

and services industry is a global leader in mining innovation and is a significant contributor to the Australian economy.⁴⁴ Building on these strengths by extending Australia's expertise to offshore petroleum decommissioning might help develop Australia into a centre of innovation across the life cycle of energy resources. It would also mean Australian projects could rely on local expertise, rather than import it, as well as provide attractive services/skills for export. This may even attract new entrants to Australia.

As discussed in [section 6.1](#), there is some work already being undertaken in Australia to encourage an Australian decommissioning sector. For example, [NERA](#) is currently mapping the decommissioning supply chain within Australia. Offshore petroleum companies, including through [APPEA](#), are also involved in work with subject matter experts, research organisations and supporting industries to find innovative and cost effective solutions to decommissioning challenges. Industry support will be key for understanding the problem and working on practical solutions and examples, and can also provide access to global operations and networks.

There may be further opportunities available for Australian entities to engage with the offshore petroleum industry and researchers to develop products, services or technologies and expertise to meet the needs of this growing decommissioning market.

Submissions may wish to consider and comment on the following:

Q21	Is there interest and merit in creating an Australian offshore petroleum decommissioning industry? Please articulate why or why not.
	If yes: What opportunities are there? Should government be involved in establishing this industry and, if so, how? Offshore petroleum industry: noting your participation and lead would be crucial, what is your appetite for being involved in and supporting the development of an Australian offshore petroleum decommissioning industry? Please outline potential methods for involvement and resources you might be willing to contribute.

⁴⁴ Austmine (2013). *Australia's New Driver for Growth: Mining Equipment, Technology and Services*.

Broader decommissioning issues and opportunities

6.3 Issues and opportunities

While this review focusses on clarifying and strengthening the decommissioning regulatory framework, the department also welcomes ideas on ways the nation might best encourage, support or help facilitate industry innovation and participation.

Government also welcomes suggestions for improving and enhancing regulatory processes and oversight.

Where these ideas and suggestions relate to areas for which other government organisations hold primary responsibility and oversight, the department will provide these ideas to the relevant organisation(s) for their consideration and progression as appropriate.

Submissions may wish to consider and comment on the following:

Q22

Are there other issues relating to decommissioning that are not covered in this discussion paper and you think it is appropriate for government to be involved in?

If yes: What are they? What is the suggested government involvement?

Next steps

Comments

The department encourages everyone involved in or affected by the offshore decommissioning regime to participate in the review.

Comments are welcomed on some or all of the issues, opportunities, options and questions posed in this paper, as well as on enhancements to the decommissioning framework. These can be lodged via [consultation hub](#). For convenience, a summary of the options and questions outlined in the paper is also available on [consultation hub](#).

Comments on this Discussion Paper close on 16 January 2019.

Discussion Forums

As part of the consultation process, discussion forums will be held in Perth and Melbourne in the week of 29 October 2018. If there is sufficient interest, the department will also consider running sessions in capital cities near major offshore petroleum activity. Information on how to register for these sessions is available on [consultation hub](#).

Implementation Paper

The department will consider the comments provided on the Discussion Paper and release an Implementation Paper. This will detail proposed actions to enhance the decommissioning framework. The department will seek comments and consult on the Implementation Paper, which it expects to release in late 2019.

Further information

You can also register your interest to receive further information as it becomes available by emailing offshorepetroleumreform@industry.gov.au and registering on the [department's website](#) to receive the Australian Petroleum News newsletter.

Annex I: Current decommissioning framework

Core OPGGS Act decommissioning provisions

The OPGGS Act and regulations are the core legislative framework outlining obligations relating to decommissioning offshore petroleum infrastructure in Commonwealth waters.

Removal, maintenance and repair of property

Under subsection 572(3), a titleholder must remove from their title area all structures that are, and equipment and other property that is, neither used nor to be used for operations authorised by their title. This obligation is ongoing, and covers both the removal of property at the end of production and the removal of disused infrastructure at appropriate points throughout the life of a project.

Under subsection 572(2), titleholders must also maintain in good condition and repair all structures that are, and all equipment and other property that is, in the title area and used for operations authorised by the relevant title. This is also an ongoing obligation under the OPGGS Act.

The property removal, maintenance and repair obligations are subject to other provisions of the OPGGS Act, the regulations, directions given by NOPSEMA or the responsible Commonwealth Minister (the Minister), and other applicable laws. The obligations therefore do not substitute for or override other provisions of, or arrangements made under, the OPGGS Act or regulations.

Surrender of titles

Under section 269, a titleholder may apply to the National Offshore Petroleum Titles Administrator (NOPTA) for the Joint Authority's consent to surrender their title. Holders of exploration permits, production licences or pipeline licences can apply to surrender the permit or licence in whole or part. Retention leases and infrastructure licences can only be surrendered in their entirety.

Subsection 270(3) sets out the criteria that is considered by the Joint Authority before it may consent to the surrender of a title (consent to surrender criteria). These include a number of decommissioning obligations. In particular, these criteria outline that the titleholder must have, to the satisfaction of the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA):

- removed, or caused to be removed, all property brought into the area that is proposed to be surrendered (the surrender area) by any person engaged or concerned in operations authorised by the title, or made arrangements that are satisfactory to NOPSEMA in relation to that property
- plugged or closed off any wells made in the surrender area by any person engaged or concerned in the operations authorised by the title
- provided for the conservation and protection of the natural resources in the surrender area
- made good any damage to the seabed or subsoil in the surrender area caused by any person engaged or concerned in the operations authorised by the title.

General power to issue directions

Under section 574, NOPSEMA may give a direction to a titleholder as to any matter in relation to which regulations may be made. Specific matters in relation to which regulations may be made are set out in section 782, and include, but are not limited to, the:

- exploration for and recovery of petroleum, and the carrying on of operations or works for those purposes
- conservation of, and prevention of the waste of, the natural resources (whether petroleum or otherwise) of the continental shelf
- maintaining in good condition and repair all structures, equipment and other property used or intended to be used for or in connection with exploring for or exploiting petroleum
- removal from an offshore area of structures, equipment and other items of property that have been brought into the offshore area for or in connection with exploring for or exploiting petroleum, and are no longer used, or intended to be used, for those purposes.

The Minister has a similar power to issue directions under section 574A. However, a direction issued by the Minister must relate to resource management, resource security or data management.

Power to issue remedial directions to current and former titleholders

Under sections 586 and 587 respectively, NOPSEMA may issue remedial directions to current and former titleholders. NOPSEMA may direct a current or former titleholder to do any or all of the following to NOPSEMA's satisfaction:

- remove, or cause to be removed, all property brought into the title area by any person engaged or concerned in operations authorised by the title, or make arrangements that are satisfactory to NOPSEMA in relation to that property
- plug or close off wells made in the title area by any person engaged or concerned in the operations authorised by the title
- provide for the conservation and protection of the natural resources in the title area

- make good any damage to the seabed or subsoil in the title area caused by any person engaged or concerned in the operations authorised by the title.

The Minister has a similar power to issue remedial directions to current and former titleholders under sections 586A and 587A respectively. However, the Minister cannot issue remedial directions in relation to the removal of, or making of arrangements in relation to, property, and may only give directions for a purpose that relates to resource management or resource security.

Core OPGGS regulations requirements

Environmental management

Environmental management for petroleum activities is regulated under the [Offshore Petroleum and Greenhouse Gas Storage \(Environment\) Regulations 2009](#) (the Environment Regulations).

Offshore Project Proposals

The Offshore Project Proposal (OPP) framework allows whole-of-project assessment by NOPSEMA, and permits stakeholders to input into project development proposals and raise concerns relating to environmental sensitivities, impacts and risks. A proponent must include in their OPP a description of actions proposed to be taken, following completion of the project, in relation to facilities. This includes proposed decommissioning activities in relation to those facilities. Titleholders can also use the OPP process for a stand-alone decommissioning activity.

Environment plans

Before commencing an activity under their title, a titleholder must submit and receive acceptance for an environment plan (or receive acceptance for a revision of an existing plan, if appropriate). For NOPSEMA to accept an environment plan, the plan must meet all of the criteria in regulation 10A of the Environment Regulations. Titleholders must undertake all activities in a manner consistent with their accepted environment plan. Under regulation 25A of the Environment Regulations, to bring an environment plan to an end the titleholder must notify NOPSEMA that the activity or activities to which the plan relates have ended, and that all of the obligations under the environment plan have been completed.

Safety

Safety of offshore petroleum operations is regulated under Schedule 3 to the OPGGS Act and under [the Offshore Petroleum and Greenhouse Gas Storage \(Safety\) Regulations 2009](#) (Safety Regulations).

Safety cases

Under the Safety Regulations, persons are not permitted to undertake any work with respect to a facility in Commonwealth waters – including decommissioning a facility or part of a facility – without a safety case in force that provides for the relevant activity.

Safety cases can be submitted to NOPSEMA under regulation 2.24 of the Safety Regulations. If a safety case is already in force for a facility, but decommissioning is not adequately addressed therein, the operator must submit a revised safety case under regulation 2.30 of the Safety Regulations in advance of undertaking decommissioning.

Well integrity

Well integrity in the offshore petroleum sector is regulated under Part 5 of the [Offshore Petroleum and Greenhouse Gas Storage \(Resource Management and Administration\) Regulations 2011](#) (RMA Regulations). Titleholders also have OHS duties relating to wells under Schedule 3 to the OPGGS Act.

Well operations management plans

Plugging and abandonment is a well activity for the purposes of Part 5 of the RMA Regulations. Prior to undertaking a well activity, titleholders must have an accepted well operations management plan (WOMP) that applies to that activity. The WOMP is required to cover the life of the relevant well, up to and including permanent abandonment. If there is a well in a title area that is not operational but not permanently abandoned, the titleholder is taken to be undertaking a well activity in relation to the well. It is an offence to carry out a well activity in Commonwealth waters without a WOMP, or in a manner inconsistent with an accepted WOMP.

Titleholders must also provide advance notification to NOPSEMA, copied to NOPTA, before commencing specified well activities, including plugging and abandonment, in accordance with the requirements of regulation 5.22.

Under regulation 5.17 of the RMA Regulations, to bring a WOMP to an end the titleholder must have permanently abandoned the well or wells to which the WOMP relates and given NOPSEMA a written report of the process undertaken in abandoning the well(s) (including the outcomes of that process). The operation of the WOMP ends when NOPSEMA notifies the titleholder that NOPSEMA is reasonably satisfied that the process of abandonment has been undertaken in accordance with the WOMP.

Approvals from the Joint Authority

The Joint Authority is responsible for assessing and accepting field development plans (FDPs) under Part 4 of the RMA Regulations. The Joint Authority will consider advice provided by NOPTA in making decisions on FDPs.

Under regulation 4.02 of the RMA Regulations, a production licensee may not recover petroleum, unless on an appraisal basis, without an accepted FDP in place.⁴⁵ Under regulation 4.06 of the RMA Regulations, the FDP will be accepted by the Joint Authority if it is satisfied that the FDP includes the matters in sub-regulation 4.07(1), and demonstrates that the person will conduct pool management in the field consistent with good oilfield practice and compatible with optimum long term recovery of the petroleum.

While there is no express requirement to include decommissioning in the FDP, the plan must include the project schedule and development strategy. Further, where a production licensee proposes to cease production, permanently or for the long term, before the date proposed in the FDP, this would constitute a 'major change', and under regulation 4.08 requires an application to the Joint Authority, through NOPTA, for a variation to the accepted FDP.

The timing of decommissioning activities, in particular the removal of infrastructure such as Floating Production Storage and Offloading vessels, platforms and pipelines may have broader implications for the optimal recovery of petroleum in an area. Where a titleholder is considering ceasing production or initiating a decommissioning process, it is recommended they contact NOPTA to discuss any potential regulatory approvals that may be required.

Once decommissioning activities have been satisfactorily completed, the Joint Authority can bring a title or parts of a title to an end, for example in its role as the decision-maker on an application to surrender an offshore petroleum title.

Key entities

There are a number of key entities involved in and critical to the decommissioning framework's successful operation.

Duty holders

Legislated duty holders (such as titleholders and facility operators) are ultimately responsible for ensuring that decommissioning is undertaken, in a manner that is lawful, safe, effective and environmentally responsible. Duty holders are required to obtain all necessary

⁴⁵ Note: regulation 4.15 of the OPGGS Act provides for an approval to undertake recovery without an accepted FDP in certain circumstances.

approvals, and to ensure that all necessary control measures are in place, prior to undertaking any petroleum activity in Commonwealth waters.

In relation to wells and environmental management, the duty holder is always the titleholder. In relation to occupational health and safety, the duty holder may be the titleholder, the facility operator or another person. Only the titleholder has obligations in relation to decommissioning.

Information on the current holders of titles in Commonwealth waters is available on the [National Electronic Approvals Tracking System](#).

NOPSEMA

[NOPSEMA](#) is the independent regulator for safety, well integrity and environmental management for offshore petroleum activities, including decommissioning. NOPSEMA assesses duty holders' permissioning documents, to determine whether safety, environmental and well integrity risks have been appropriately identified and will be managed to levels that are as low as reasonably practicable (ALARP) and, in the case of environmental risks, levels that are acceptable. NOPSEMA monitors and enforces compliance with the full range of regulatory requirements through implementing its compliance and enforcement strategy.

As part of its assessment and approval processes, NOPSEMA considers proposed decommissioning approaches.

The Joint Authority and/or NOPTA also consider NOPSEMA's advice about titleholder compliance when making relevant titles decisions.

Joint Authority

The [Joint Authority](#) for the offshore area of each State (except Tasmania) and the Northern Territory comprises the responsible Commonwealth Minister (the Minister) and the relevant State or Territory Minister. For the offshore area of Tasmania, the Eastern Greater Sunrise offshore area, and the offshore areas of external territories (e.g. the Territory of Ashmore and Cartier Islands) the Joint Authority is the Minister alone.

The Joint Authority is responsible for the grant and administration of petroleum titles under the OPGGS Act, and for accepting a titleholder's field development plan under the RMA Regulations. In exercising its functions, the Joint Authority receives technical advice from NOPTA and, where a function requires the Joint Authority to take into account titleholder compliance in matters regulated by NOPSEMA, advice from NOPSEMA to inform the final decision of the Joint Authority. Particularly relevant for decommissioning, the Joint Authority is responsible for decisions to bring a title to an end over some or all of the blocks to which it relates. These decisions include:

- renewing exploration permits (which usually involves relinquishment of some blocks)
- revoking, terminating or cancelling titles
- consenting to the surrender of titles.

For many of these decisions, the Joint Authority requires NOPSEMA's advice on titleholder compliance.

NOPTA

[NOPTA](#) is responsible for titles administration and data management, as well as for providing advice to the Joint Authority and the Minister in relation to the exercise of functions and powers under the OPGGS Act and regulations.

NOPTA's role in relation to decommissioning is to advise the Joint Authority as to the performance of its functions, and to act as the primary point of interface between the Minister and the offshore petroleum industry.

NOPTA is also responsible for approving transfers of titles. The [Offshore Petroleum Guideline: Transfers and Dealings Relating to Petroleum Titles](#) (transfers and dealings guideline) was recently updated to outline that 'in assessing the future financial obligations of the transferee(s) NOPTA will consider [among other things] the timing and scale of any decommissioning obligations'.

The Department of the Environment and Energy

The [Department of the Environment and Energy](#) (DEE) administers much of the Commonwealth legislation applicable to decommissioning other than the OPGGS Act and associated regulations. For example, DEE administers the [Environment Protection \(Sea Dumping\) Act 1981](#) (Sea Dumping Act), which may apply if a titleholder proposes to deliberately dispose of, topple or abandon certain infrastructure at sea after completing a decommissioning project. Under the Sea Dumping Act all other alternatives to dumping must be fully considered.

DEE also administers the [Environment Protection and Biodiversity Conservation Act 1999](#) (EPBC Act). In 2014, the Australian Government streamlined offshore petroleum environmental approvals, with the Minister for the Environment approving all petroleum and greenhouse gas activities in Commonwealth waters under the EPBC Act, provided they have been assessed and accepted by NOPSEMA. This means individual petroleum activities, including decommissioning, no longer need to be referred for individual assessment under the EPBC Act. In circumstances where conditions for decommissioning were applied to an environmental approval granted under the EPBC Act prior to NOPSEMA becoming the sole regulator for petroleum activities in Commonwealth waters, those conditions must be met for the activity to proceed.

The EPBC Act is also relevant to sea dumping activities. Under subsection 160(1) of the EPBC Act, if an action that would be authorised by a sea dumping permit has, will have or is likely to have a significant impact on the environment, the Minister for the Environment and Energy's advice must be obtained before the relevant permit is granted.

Other interested parties

The public is an important stakeholder in the process. The Australian Government, on behalf of the Australian public, provides rights to exploit the resources in offshore areas. The public accordingly have expectations around how these resources are exploited, including a focus on environmental protections. Perspectives of the public and other entities are considered during the decommissioning process, most commonly through the consultation required by applicable legislation. For example, there is a requirement under the Environment Regulations for petroleum titleholders to consult with 'relevant persons' whose functions, interests or activities may be affected by the proposed activity when preparing an environment plan, and to give full consideration to any feedback received in response. Relevant persons often include fishers, tourism operators and certain industry associations.

Annex II: International approaches

Norway

In Norway, it is a long established policy that petroleum resources shall be managed to the benefit of Norwegian society as a whole. Offshore petroleum operations in Norway are regulated by State policy and legislative frameworks, and the property right to the petroleum resources is vested in the State.

Petroleum activities, including decommissioning activities, are administered by the Norwegian Ministry of Petroleum and Energy (the Ministry) – primarily under the [Act 29 November 1996 No. 72 Relating to Petroleum Activities](#) (Petroleum Activities Act) and the [Regulations to Act Relating to Petroleum Activities](#) (Activities Regulations).

The Norwegian Government has not published decommissioning guidance documents for industry. Guidance is given in the legislation, and in dialogue with industry members.

Other instruments may also apply in relevant circumstances (e.g. where a licensee proposes to dispose of infrastructure onshore). However, these are not considered in this paper. Key features of the Norwegian decommissioning regime are outlined below.

Specific decommissioning provisions

In Norway, licensees must submit a decommissioning plan to the Ministry before a production licence expires or is surrendered, or the use of a facility is permanently terminated.

- The plan must be submitted between two and five years before the use of a facility is expected to be permanently terminated.⁴⁶
- The plan must contain proposals for disposal of infrastructure and an impact assessment.⁴⁷ Licensees must comply with the requirements of a decommissioning plan once accepted by government, even if the plan will be implemented after the relevant licence has expired.⁴⁸
- Licensees are also jointly and severally liable for the cost of implementing an accepted decommissioning plan.

⁴⁶ Petroleum Activities Act s 5-1.

⁴⁷ Activities Regulations s 43. Specific requirements for the content relating to disposal and the environmental impact assessment appear in ss 44 and 45 of the Activities Regulations.

⁴⁸ Petroleum Activities Act s 5-3.

Parties responsible for carrying out a decommissioning plan are jointly and severally liable for damage or inconvenience caused wilfully or negligently in connection with the disposal of infrastructure, or associated with a facility left in-situ.⁴⁹

Liabilities and change of ownership

Licensees are also liable in perpetuity for decommissioning and associated costs. For example, if a license or a share in a license has been transferred or assigned to an entity that defaults on its decommissioning obligations, the decommissioning costs related to the participating interest in question may be claimed from the assignor, and subsequently from each previous assignor in the chain of ownership.⁵⁰

The transfer of licences or participating interests therein may not take place without the consent of the Ministry.⁵¹ The Ministry has some discretionary powers in the matters that it may take into consideration when deciding whether to consent to the transfer of a license.

Financial security matters

The Ministry may require licensees to establish and maintain financial security to fulfil their obligations (including decommissioning obligations) under the Petroleum Activities Act and Activities Regulations.⁵² The power is discretionary; however, the Ministry has indicated that in practice such security is almost always required.

The Ministry typically requires industry members to provide security for each phase of the exploration and production lifecycle, including for decommissioning. Security is typically provided by way of a parent company guarantee; however, other forms of security (e.g. bank guarantees and insurance) may be accepted on a case-by-case basis.

Recent developments

Norway has not made any changes to their regime since implementing OSPAR⁵³ Decision 98/3 in the Petroleum Activities Act. That Decision prohibits dumping of disused offshore installations in the maritime area, or leaving infrastructure in-situ (except in exceptional circumstances and subject to Ministry approval).

⁴⁹ Petroleum Activities Act s 5-4.

⁵⁰ Petroleum Activities Act s 5-3 [3] and [4]. The liability of assignors is limited to the costs of decommissioning infrastructure installed and wells drilled prior to the assignment taking place.

⁵¹ Petroleum Activities Act s 10-12.

⁵² Petroleum Activities Act s 10-7.

⁵³ Convention for the Protection of the Marine Environment of the North-East Atlantic.

The Norwegian Government has otherwise identified no gaps in the regime requiring changes.

United Kingdom

Decommissioning in the United Kingdom (UK) is administered and regulated by the Department for Business, Energy and Industrial Strategy (BEIS) under the [Petroleum Act 1998](#) (Petroleum Act UK), which sets up a framework for the orderly decommissioning of disused installations and pipelines on the UK Continental Shelf.⁵⁴ Additional matters relating to decommissioning and financial security appear in the [Energy Act 2008](#) and the [Energy Act 2016](#), which amend the Petroleum Act UK.⁵⁵

BEIS is supported by the UK Oil and Gas Authority (OGA), which acts as an independent regulator for new and ongoing oil and gas production. It is also a consultee, providing a view as to whether costs are minimised in a decommissioning programme to BEIS.

Key features of the UK decommissioning regime are outlined below.

BEIS [Guidance Notes: Decommissioning Offshore Oil and Gas Installations and Pipelines](#) (Guidance Notes) provide a more comprehensive overview of the UK regime.

Key decommissioning provisions

The Secretary of State may under section 29 of the Petroleum Act UK serve notices (section 29 notice) requiring submission of a programme of measures proposed to be taken in connection with the abandonment of an installation or pipeline (abandonment program).⁵⁶

- A section 29 notice may be served on a wide range of industry participants who have derived a beneficial interest in the field, including persons who manage an installation, and other parties with relevant interests.⁵⁷
- A person to whom a section 29 notice may be given is not permitted to begin or continue to decommission an installation or pipeline unless an abandonment

⁵⁴ Various relevant amendments have been made to the Petroleum Act UK, most notably through the *Energy Act 2008* and the *Energy Act 2016*. References in this paper are to the Petroleum Act UK as amended.

⁵⁵ Amendments made by the *Energy Act 2008* and *Energy Act 2016* are not reflected in the text of public versions of the Petroleum Act UK. The *Energy Act 2008* and *Energy Act 2016* should therefore be accessed separately.

⁵⁶ Petroleum Act UK s 29. A section 29 notice may be served long before it is expected that the recipient will submit their decommissioning programme.

⁵⁷ Persons on whom a section 29 notice may be served are detailed in s 30 of the Petroleum Act UK.

programme relating to that installation or pipeline has been approved by the Secretary.⁵⁸

The power to serve a section 29 notice is discretionary. However, in practice the same process is followed for each field owner. After confirming information relating to infrastructure within a field (through a field development plan and a direct facilities information request), BEIS will send a letter to relevant persons (e.g. an operator or a licensee) warning that BEIS proposes to issue a section 29 notice.

The recipient of the notice has the opportunity to make written representations if they believe the notice should not be issued. Subject to any such representations, BEIS issues the notice.⁵⁹

When preparing an abandonment programme (generally known as a Decommissioning programme), the proponent must consult with the OGA, and must frame the programme to ensure the cost of carrying it out is kept to the minimum that is reasonably practicable.⁶⁰

- OGA must advise on any alternatives to decommissioning that may be available, as well as on how to minimise costs (while complying with all applicable regulatory requirements).⁶¹

The complete removal of infrastructure remains the base case decommissioning requirement under the UK regime, consistent with OSPAR Decision 98/3. Derogation from this requirement may be permitted in exceptional circumstances. Operators and other Section 29 holders wishing to make a case for derogation must do so in their abandonment programmes.

Following submission of a programme, the Secretary will either approve or reject the programme. The Secretary may approve a programme subject to modifications or conditions.⁶²

The proponent or proponents (all signatories) of an abandonment programme are obliged to carry it out once it is approved by the Secretary.⁶³ The duty to carry out an abandonment

⁵⁸ Petroleum Act UK s 28A (inserted by *Energy Act 2016* Schedule 2 item 2).

⁵⁹ Guidance Notes.

⁶⁰ Petroleum Act UK s 29(2A).

⁶¹ Petroleum Act UK s 29(2B).

⁶² Petroleum Act UK s 32. Following amendments made by the *Energy Act 2016*, such modifications or conditions may (in particular) be to reduce costs and to increase transparency.

⁶³ Petroleum Act UK s 36.

programme is joint and several; if any person with a duty to carry out a programme is unable to do so, the other interested parties will be responsible for the defaulting party's burden.⁶⁴

Where a person fails to comply with an approved abandonment programme, the Secretary of State may by written notice require any of the persons who submitted the programme to take remedial action. If the recipient of the notice does not comply, the Secretary of State may also undertake such work as necessary to carry the programme out, and recover the costs of doing so.⁶⁵

Liabilities and change of ownership

Liability in perpetuity exists for all decommissioning and abandonment obligations, as well as any infrastructure that remains in the marine environment.

- The Secretary may impose on any person who *could* have been served with a section 29 notice a duty to carry out a decommissioning programme, and may 'call back' persons who were released from obligations (e.g. following assignment of ownership in a licence).⁶⁶

Financial security matters

The Secretary of State has discretionary powers to require a person to demonstrate they have the financial capacity to carry out obligations (including decommissioning obligations) under a licence as well as under their responsibilities as a section 29 holder. The powers may be exercised to determine whether to issue a section 29 notice or to determine whether to impose duties in relation to a decommissioning programme.⁶⁷

If the Secretary of State is not satisfied that a person will be capable of carrying out a decommissioning programme, the Secretary may also require that person to take such action as the Secretary specifies. This may include setting aside financial security for decommissioning and providing more detailed financial planning information.⁶⁸

Any security set aside for decommissioning is protected from creditors if the provider becomes insolvent. Section 38A of the Petroleum Act UK specifically dis-applies the *Insolvency Act 1986*, as well as any other enactment or rule that would restrict the security

⁶⁴ Petroleum Act UK s 36. See also BEIS, Guidance Notes.

⁶⁵ Petroleum Act UK s 37.

⁶⁶ Petroleum Act UK s 34. The Guidance Notes also indicate that government has never 'called back' a person to carry out a programme, and that the powers in section 34 are typically exercised only as a last resort.

⁶⁷ Petroleum Act UK s 38.

⁶⁸ Petroleum Act UK s 38. This position is reinforced in the BEIS Guidance Notes. The Secretary is empowered to take similar actions in relation to wells under section 45A of the Petroleum Act UK.

being used for the purposes for which it was set up (i.e. meeting decommissioning liabilities).⁶⁹

Recent developments

In 2016, the UK made substantial changes to its regime through the *Energy Act 2016*. These followed publication of the [Maximising Economic Recovery Strategy for the UK](#) (MER Strategy), and aim to enforce the MER Strategy and to optimise resource recovery.⁷⁰ Key changes include:

- Establishing the OGA as an independent government company.
 - The OGA's role is to regulate, influence and promote the UK oil and gas industry to achieve maximum economic recovery of petroleum resources. The OGA has developed a number of strategies targeted at strategic priority areas, including decommissioning.⁷¹
- Conferring powers on the OGA to enforce offshore petroleum legislation and to monitor and enforce compliance with the MER Strategy. These include powers to issue notices, impose penalties, and revoke licences for clear or persistent breaches of the Strategy.
- Requiring industry members to consult with the OGA before submitting an abandonment programme. The Secretary of State must also consider representations made by OGA when determining whether to approve the programme.
- Requiring abandonment programmes to be framed in a way that ensures costs are kept to the minimum that is reasonably practicable.⁷²
- Empowering the Secretary of State to impose conditions on or require amendments to decommissioning programmes to reduce costs – particularly regarding timing, collaboration, and alternatives to decommissioning such as repurposing infrastructure for alternate use.

United States

In the United States (US), decommissioning in Federal waters is administered under the *Outer Continental Shelf Lands Act* (OCS Lands Act) and associated regulations. These

⁶⁹ Inserted under section 74 of the *Energy Act 2008*.

⁷⁰ Under section 9G of the Petroleum Act UK, the Secretary of State is obliged to produce one or more strategies to enable the Principal Objective of 'maximising the economic recovery of UK petroleum' to be met.

The MER Strategy came into force on 18 March 2016, and obliges all relevant persons (e.g. licensees and operators) to, in the exercise of their functions, take steps necessary to secure the maximum value of economically recoverable petroleum is recovered from the strata beneath UK waters.

⁷¹ For example, the OGA [Decommissioning Strategy](#).

⁷² Petroleum Act UK s 29(2A).

instruments set up a comprehensive leasing and administration system for the development of resources on the US Outer Continental Shelf (OCS), and relevantly include decommissioning and financial security obligations.

The OCS Lands Act is administered by the Federal Department of the Interior – primarily by two internal agencies. The Bureau of Ocean Energy Management (BOEM) manages the responsible exploration and development of offshore energy and marine mineral resources on the US OCS. BOEM promotes energy independence, environmental protection and economic development through responsible management of these offshore resources based on the best available science. The Bureau of Safety and Environmental Enforcement (BSEE) develops and administers policies and regulations to improve safety and ensure environmental protection related to offshore energy (primarily oil and gas) activities on the outer Continental Shelf. BSEE is also responsible for compliance and enforcement matters.

Key features of the US decommissioning regime are outlined below.

Key decommissioning provisions

Decommissioning obligations accrue to any person who drills a well, installs infrastructure, or creates an obstruction, or acquires an interest in a lease or right-of-way on which there is infrastructure or a well that has not been decommissioned.⁷³

Industry members are required to remove all infrastructure and to plug and abandon all wells:

- within one year after the relevant lease is terminated, or⁷⁴
- after the infrastructure has not been used for a period of five years or more.⁷⁵

Decommissioning responsibilities are joint and several.⁷⁶

Industry members must submit a number of documents covering the decommissioning process. These include applications before and reports after decommissioning takes place.⁷⁷

⁷³ Under 30 C.F.R. § 250.1700, *obstructions* mean structures, equipment, or objects that were used in oil, gas, or sulphur operations or marine growth that, if left in place, would hinder other users of the OCS.

⁷⁴ 30 C.F.R. § 250.1710 (wells); 30 C.F.R. § 250.1725 (platforms and installations). Platforms and installations may be left in place if approval has been granted to use them for other activities.

⁷⁵ Under 30 C.F.R. § 250.1703, industry members must remove infrastructure, and plug and abandon wells, that are ‘no longer useful for operations.’ ‘No longer useful for operations’ means not used for a period of at least five years. See [BSEE NTL No.2010-G05: Decommissioning Guidance for Wells and Platforms](#)

⁷⁶ 30 C.F.R. § 250.1701.

⁷⁷ 30 C.F.R. § 250.1704.

Post-decommissioning reports in particular enable BSEE to verify that decommissioning (including site rehabilitation) has been undertaken in accordance with approved proposals.

- Similar applications and reports are also required in relation to plugging and abandonment of wells.⁷⁸ Industry members must also notify the appropriate BSEE district manager at least 48 hours before beginning permanent plugging and abandonment operations.⁷⁹

The regulations also contain a number of specific requirements for decommissioning pipelines and other infrastructure, for permanently plugging wells, and for site clearance operations undertaken once decommissioning is complete.⁸⁰

Liabilities and change of ownership

A person who assigns an interest in a lease (assignor) remains liable for all obligations that accrued in connection with the lease up while they held record title interest.

BOEM or BSEE may require an assignor to bring the lease into compliance if the person to whom interests were assigned (assignee), or any subsequent assignee, fails to perform any obligation under the lease, to the extent the obligations accrued before the assignment took place.⁸¹

Financial responsibility matters

OCS conventional energy lessees and holders of other relevant interests are required to maintain with BOEM some form of security to guarantee compliance with obligations.⁸²

BOEM implements a phased approach to the financial assurance requirements for its lessees. Before BOEM will issue a lease, it requires that:

1. the company maintain a \$50,000 lease-specific bond that guarantees compliance with all the terms and conditions of the lease, or

⁷⁸ 30 C.F.R. § 250.1704; 30 C.F.R. § 250.1712.

⁷⁹ 30 C.F.R. § 250.1713.

⁸⁰ See e.g. 30 C.F.R. § 250.1716; § 250.1728; 30 C.F.R. § 250.1750 – 250.1754; 30 C.F.R. § 250.1715; 30 C.F.R. § 250.1740 – 250.1743.

⁸¹ 30 C.F.R. § 556.710. This is broadly similar to the Norwegian approach. The US Government would pursue the current lessee first, then the previous lessee, and so on up the chain of ownership.

⁸² 30 C.F.R. §556.900.

2. the company maintain a \$300,000 “area-wide” bond, which guarantees compliance with the terms and conditions of all of the company’s leases located in particular geographic area.⁸³

Prior to a lessee conducting exploration activities, BOEM requires that companies maintain a \$200,000 lease-specific bond or a \$1,000,000 area-wide bond, and, prior to conducting development and production activities, lessees must maintain a \$500,000 lease-specific bond or a \$3,000,000 area-wide bond.⁸⁴

Finally, BOEM may require additional security to ensure compliance with other lease obligations – including decommissioning. The decision to require additional security, and on the amount of security that is required, is based on an assessment of the lessee’s capacity to carry out present and future obligations.⁸⁵

BOEM’s regulations state that instead of providing a bond to meet financial assurance requirements, companies may provide treasury securities, third party guarantees, or lease-specific abandonment accounts.⁸⁶

BOEM may pursue forfeiture of security if it determines a lessee has failed or is likely to fail to comply with its obligations.⁸⁷

Mechanisms for cancelling bonds and releasing lessees from liability are designed to ensure that government can respond to unforeseen events that occur after termination of the lease and completion or purported completion of relevant obligations.

General securities are cancelled at the latest of seven years after termination of the associated lease, six years after completion of all secured obligations, or at the conclusion of appeals or litigation related to secured obligations.⁸⁸

Additional securities are typically cancelled following completion of secured obligations. However, if BOEM determines that future potential liability is greater than the amount of the general security, BOEM may wait up to seven years before cancelling the additional securities, or longer as needed to complete any associated appeals or judicial litigation.⁸⁹

⁸³ 30 C.F.R §556.900.

⁸⁴ 30 C.F.R. §556.901.

⁸⁵ 30 C.F.R. § 556.901.

⁸⁶ 30 CFR §556.902, 30 CFR §556.904, 30 CFR §556.905.

⁸⁷ 30 C.F.R. §556.907

⁸⁸ 30 C.F.R. § 556.906.

⁸⁹ 30 C.F.R. § 556.906.

Recent developments

BOEM is currently evaluating its financial assurance framework, with the goal of continuing to ensure that US taxpayers never have to shoulder the liability for decommissioning OCS facilities while also assuring that BOEM's requirements do not position US offshore production at a competitive disadvantage.

In 2016, BOEM developed a 'Notice to Lessees' to clarify the procedures and modify the criteria BOEM would use to determine if and when additional security may be required for OCS leases.⁹⁰

On 28 April 2017, the US President issued [Executive Order 13795: Implementing an America-First Offshore Energy Strategy](#). This required the Secretary of the Interior to direct the Director of BOEM to review BOEM's 2016 NTL and determine whether modifications would be necessary, and if so, to what extent.⁹¹ It also required the Secretary of the Interior to review BOEM's financial assurance regulatory policy to determine the extent to which additional regulation is necessary.

Canada

In Canada, decommissioning on Federal lands is governed under the [Canada Petroleum Resources Act](#) (C-PR Act) and the [Canada Oil and Gas Operations Act](#) (C-OGO Act). These instruments are administered by the Canadian Departments of Natural Resources (south of 60th parallel) and Crown Relations and Northern Affairs (north of 60th parallel).

The Federal Government has signed accord agreements with the Provincial Governments of Nova Scotia and Newfoundland and Labrador, with legislation (the Accord Acts) and regulations enacted to implement those agreements.⁹² The Accord Acts contains virtually identical provisions to the C-OGO and C-PR Acts, with minor adjustments made to account for the circumstances of relevant joint management arrangements. The Accord Acts are mirrored in provincial legislation, with operations in joint management areas regulated under both federal and provincial Acts.

Decommissioning is also subject to a rigorous environmental assessment process. The [Canadian Environmental Assessment Act](#) (C-EA Act) requires companies to refer activities to the Canadian Environmental Assessment Agency (CEAA) or a responsible authority for assessment. Environmental Assessments for projects regulated under the Accord Acts are

⁹⁰ BOEM's "Notice to Lessees" are documents generally intended to provide lessees with additional information or interpretation of BOEM regulations.

⁹¹ See [BOEM NTL No.2016-N01: Requiring Additional Security](#).

⁹² The [Canada-Newfoundland Atlantic Accord Implementation Act](#) and the [Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act](#).

referred to CEAA, and those for projects regulated under the C-OGO Act are referred to the National Energy Board (NEB).

The regulation of petroleum activities in Canada is undertaken by the Offshore Petroleum Boards (the NEB, the Canada-Nova Scotia Offshore Petroleum Board, and the Canada-Newfoundland and Labrador Offshore Petroleum Board). The Boards are responsible for authorising activities, ensuring industry members have appropriate environmental and safety risk management arrangements in place, and ensuring industry members are capable of responding to incidents.

The [Drilling and Production Guidelines](#) (produced by the Canada-Nova Scotia Offshore Petroleum Board, and the Canada-Newfoundland and Labrador Offshore Petroleum Board) provide some guidance on decommissioning and abandonment.

Key features of the Canadian decommissioning regime are outlined below.

Key decommissioning provisions

Prior to commencing operations, licensees are required to submit a development plan (DP) to the relevant Board for approval. The DP must contain information regarding site closure.

- The DP is typically the first point at which decommissioning is considered. Decommissioning information included in the DP is not detailed, and reflects a high-level commitment to appropriately decommission at the end of the project.
- The Boards cannot grant an activity authorisation (outlined below) before a DP is approved.

The Board may also approve the DP subject to conditions, which may include a condition that infrastructure is removed at the end of a project.

- If complete removal of infrastructure is a condition of a DP, licensees must incorporate in the design of infrastructure measures to ensure that its removal is technically feasible.⁹³

Licensees are required to apply to the relevant Board for an authorisation to undertake each petroleum activity (including decommissioning).⁹⁴ Licensees must include in their application

⁹³ [Canada Oil and Gas Installations Regulations](#) (C-OGI Regulations) and mirror regulations made under the Accord Acts.

⁹⁴ C-OGO Act s 5 and Accord Acts.

information about the scope of the activity, as well as safety, environmental protection, contingency and emergency response plans suited to the proposal.⁹⁵

Each application for an activity authorisation must also include information about how the site will be decommissioned.⁹⁶ The amount of information included about decommissioning will vary depending on the status of the project and the nature of the activity proposed.

- Authorisations must be renewed every three to five years. For authorisations renewed later in a project's life, more detailed decommissioning information will typically be required.

Decommissioning and abandonment are also regulated activities under the C-OGO Act and Accord Acts. Consequently, a decommissioning and abandonment authorisation will be required before decommissioning operations can commence.

- Authorisations for decommissioning are subject to the same regulatory requirements (e.g. safety, environmental, etc.) as other activities, albeit that additional decommissioning-specific information may be required.

Similarly to Australia, the complete removal of infrastructure is the default decommissioning requirement. Other options may be permitted if it can be demonstrated that they deliver better safety or environmental outcomes than complete removal.

The regulations also impose specific obligations in relation to well abandonment. In particular, holders of authorisations must:

- ensure the isolation of all hydrocarbon-bearing zones from the rest of the environment, and prevent formation fluid from escaping
- following suspension of a well, monitor well integrity to prevent pollution
- following the abandonment of a well, ensure that the seafloor is cleared of any material or equipment that might interfere with other commercial users of the sea.⁹⁷

Environmental assessment

An environmental assessment under the CEA Act is required if the decommissioning and abandonment of an existing offshore floating or fixed platform, vessel or artificial island used for the production of oil or gas is proposed to be disposed of or abandoned (i.e. left behind) offshore or converted on site to another role. Therefore environmental assessments under that Act will not be required where the plan for decommissioning is to remove the installation or equipment in full. However, the Offshore Petroleum Boards will undertake their own

⁹⁵ [Canada Oil and Gas Drilling and Production Regulations](#) (C-OGDP Regulations) s 6, and mirror regulations

⁹⁶ C-OGDP Regulations s 6. Regulations made under the Accord Acts contain mirror requirements.

⁹⁷ See C-OGDP Regulations ss 56; 57; 58. Regulations under the Accord Acts contain mirror requirements.

environmental reviews, including public consultations as required, to ensure companies protect the environment according to the regulatory requirements.

Decommissioning projects are generally designated projects within the meaning given by regulations under the C-EA Act. Before commencing a designated project, the proponent must submit a proposal to the Minister for the Environment or a Responsible Authority⁹⁸ for approval.⁹⁹

- This is similar to requirements under the Australian *Environment Protection and Biodiversity Conservation Act 1999* (EBPC Act) (noting those requirements no longer apply to petroleum activities undertaken in Commonwealth waters).

Liabilities and change of ownership

A transfer of ownership in a licence has little impact on responsibility for decommissioning under the Canadian offshore petroleum regime. This is because it is the operator, rather than the licensee, who is responsible for meeting the requirements of an activity authorisation.

Where a change of operator is proposed, the new operator must meet all the requirements of any existing activity authorisation, including any financial assurance requirements (outlined below).

Financial responsibility matters

All applicants for activity authorisations are required to prove financial responsibility to meet obligations under the relevant authorisation and respond to any incidents.

- Assurances in the amount of \$100 million are typically required for development activities. This may be varied by the NEB or its provincial counterparts.¹⁰⁰
- This arrangement provides the government (the Boards) with unfettered access to up to \$100 million in the event of default or an incident associated with a project.¹⁰¹
- Demonstrate financial resources of up to \$1 billion for any liability associated with loss, damage, costs or expenses related to spills or debris.¹⁰²

⁹⁸ The Responsible Authority may vary between types of projects. For projects associated with petroleum development and production, the Responsible Authority is the National Energy Board.

⁹⁹ The proponent of a *designated project* may not do anything in connection with the project until it is decided the project does not require environmental assessment, or until approval is granted by the CEAA.

¹⁰⁰ C-OGO Act s 27(1)(a).

¹⁰¹ Based on advice from the Canadian Government.

¹⁰² C-OGO Act s26.

Bonds, letters of credit and guarantees are acceptable as means of demonstrating financial responsibility. Other forms of security may also be accepted at the discretion of the Boards.¹⁰³

- Given that one of the objectives of financial responsibility is to provide the relevant Board with access to funds in appropriate circumstances, instruments used to satisfy the financial responsibility requirements must be sufficiently liquid and payable on demand.¹⁰⁴
- Financial responsibility requirements apply for the duration of the relevant work or activity, and remain in force for a period of one year following the completion of all decommissioning activities (including removal of infrastructure and plugging and abandoning wells).¹⁰⁵
- Applicants may also prove financial responsibility by participating in a pooled fund, maintained at a minimum of \$250 million.¹⁰⁶
 - The pooled fund is not a means of pooling *liability*. If money from the fund is used to respond to an incident or discharge an obligation, reimbursement is required.¹⁰⁷

Recent developments

In 2015, the *Energy Safety and Security Act* came into force. The Act increased liability limits for offshore petroleum activities, introduced additional administrative and monetary penalties, and formalised a compulsory cost recovery regime.

Under the Frontier and Offshore Regulatory Renewal Initiative (FORRI), Canada is also working to modernise the regulatory framework governing petroleum activities in offshore areas. FORRI is a partnership of federal and provincial governments, and includes participation from the petroleum Boards. A similar process is underway, parallel to FORRI, for OHS matters.

[Bill C-69](#) is currently before the Canadian Parliament. Bill C-69 is for an Act to enact the Impact Assessment Act and the Canadian Energy Regulator Act, to amend the Navigation Protection Act and to make consequential amendments to other Acts. If passed, this will provide substantive changes to the environmental assessments regime.

¹⁰³ C-OGO Act s 27.

¹⁰⁴ Based on advice from the Canadian Government.

¹⁰⁵ C-OGO Act s 27(1.1).

¹⁰⁶ C-OGO Act s 27(1.01).

¹⁰⁷ C-OGO Act s 27(5).

[Further information](#) on FORRI and on the parallel OHS policy and regulatory change process is available on the [Canadian Department of Natural Resources website](#).

Annex III: Domestic approaches

Western Australia

Petroleum

In Western Australia (WA), offshore petroleum operations in coastal waters are regulated under the *Petroleum (Submerged Lands) Act 1982* (PSLA) and associated regulations. The PSLA regime mirrors the OPGGS Act in most important respects, and contains similar if not identical provisions relating to decommissioning, including:

- decommissioning-specific criteria for the surrender of title¹⁰⁸
- requirements to remove disused property from the title area¹⁰⁹
- powers to issue directions to former titleholders, requiring the recipient to remove property or make other satisfactory arrangements, to plug wells, and to rehabilitate the relevant site.¹¹⁰

Onshore petroleum operations are regulated under the *Petroleum and Geothermal Energy Resources Act 1967* (PGERA) and associated regulations. The PGERA contains virtually identical decommissioning-related provisions to the PSLA.

The *Petroleum Pipelines Act 1969* (PPA) contains a number of similar decommissioning provisions, applicable to both offshore and onshore petroleum pipelines and pipeline licences.

On 1 July 2015, WA enacted new resource management regulations for both offshore and onshore petroleum operations: the *Petroleum (Submerged Lands) (Resource Management and Administration) Regulations 2015* (PSL RMAR) and the *Petroleum and Geothermal Energy Resources (Resource Management and Administration) Regulations 2015* (PGER RMAR). These regulations aim to provide a risk-based management scheme for the exploration for and exploitation of petroleum and geothermal energy, and to ensure that adequate information will be available about all aspects of exploration, discovery, development and production.

Relevant to decommissioning, the new regulations contain updated requirements for field management plans (FMPs). FMPs submitted under the regulations must contain a description of plans for closure of the relevant field, including plans for decommissioning and

¹⁰⁸ PSLA s 104.

¹⁰⁹ PSLA s 98(3).

¹¹⁰ PSLA s 107.

rehabilitation.¹¹¹ The WA Department of Mines, Industry Regulation and Safety (DMIRS) Petroleum Decommissioning Guideline (WA guideline) specifies that FMPs are required to include a description of decommissioning plans.

The WA guideline outlines that planning and updating for the decommissioning program should commence some time prior to the estimated time to permanently cease production as part of the FMP revision process, and that decommissioning programs should be periodically updated with revisions to the FMP as the relevant field matures and conceptual ideas are strengthened. It also notes that final planning for decommissioning is required to commence well before permanent cessation of production, while the field is still generating cash flow. While noting that actual timings will depend on a field's size and complexity, up to five years prior to the estimated date of permanent cessation of production is referenced as a comparison requirement in the UK and Norwegian jurisdictions.

Mining

Mining operations in WA are primarily regulated under the *Mining Act 1978* (Mining Act). Persons wishing to conduct mining operations (including prospecting, exploration, recovery and development) are required to apply for a mining tenement under the Mining Act. Relevantly, applications for mining leases require applicants to provide an overview of operations that will be conducted under the mining lease, up to and including decommissioning, rehabilitation and abandonment. Key features of the WA mining regime relevant to decommissioning and abandonment include:

- Applicants for mining leases are required to submit a mine closure plan with their application, and to periodically review the plan during operations.¹¹² It is expected that the amount of decommissioning and rehabilitation information will increase over the life of the project.
- Mining tenements cannot be relinquished until government (and the regulator) is satisfied that the lessee has completed all relevant obligations.¹¹³ Obligations may include ongoing post-decommissioning monitoring.
- Once a mining lease is relinquished, the former holder is released from all liability going forward.
 - This notes, however, that as part of the process to relinquish a tenement (in addition to decommissioning and rehabilitating the site) the tenement

¹¹¹ PSL RMAR, Schedule 3, Item 16; PGER RMA, Schedule 3, Item 16 (petroleum); Schedule 4, Item 15 (geothermal energy).

¹¹² Mining Act s 74; 84AA. See also DMIRS and WA Environmental Protection Authority (EPA), [Guidelines for Preparing Mine Closure Plans](#) (May 2015).

¹¹³ WA DMIRS and EPA, [Guidelines for Preparing Mine Closure Plans](#) (May 2015).

holder(s) must ensure that any parties taking on ownership or management of land or (if relevant) infrastructure clearly understand any associated liabilities.

- Lessees are also required to lodge security for the fulfilment of obligations under their lease (including decommissioning and rehabilitation).¹¹⁴ In the majority of cases, they are also required to contribute to a dedicated fund for the rehabilitation of abandoned mines across the State (mining rehabilitation fund).¹¹⁵

Queensland

Mining and onshore petroleum

In Queensland (Qld), matters relating to rehabilitation are primarily governed under the [Environmental Protection Act 1994](#) (EPA), which covers the grant and administration of environmental authorities (EAs), financial assurance and post-project rehabilitation. Other provisions relevant to decommissioning are in the [Petroleum and Gas \(Production and Safety\) Act 2004](#) (PGPSA), and the [Mineral Resources Act 1989](#) (MRA).

Environment Protection Act 1994: rehabilitation requirements for resources activities

- Persons proposing to undertake environmentally relevant activities (ERAs), including most mining and other resource activities, are required to apply to the administering authority environmental authority (EA) prior to commencing the activities.¹¹⁶ A person may not carry out an ERA unless the person holds, and/or is acting under, an EA.¹¹⁷
- An EA may be granted subject to conditions, which must be complied with through the course of the activity or project to which the EA applies.¹¹⁸ Among other matters, conditions may relate to the manner in which the holder of the EA must rehabilitate the site after activities have ceased.
- The holder of an EA that relates to a lease must not act under the relevant lease unless the holder has submitted a plan of operations to the administering authority, and the prescribed period of time has passed.¹¹⁹

¹¹⁴ Mining Act s 84A.

¹¹⁵ [Mining Rehabilitation Fund Act 2012 \(WA\)](#). The mining rehabilitation fund replaced the previous Unconditional Performance Bonds system from 2014. All operators are required to make annual contributions based on their total closure liabilities to a pooled fund, which ensures that sufficient resources are available for site rehabilitation if operators fail to meet their environmental and remediation obligations.

¹¹⁶ EPA ss 18; 107. The administering authority is the Qld Department of Environment and Heritage Protection.

¹¹⁷ EPA s 426.

¹¹⁸ EPA s 203, 207.

¹¹⁹ EPA s 287.

- The plan of operations must include an action program for complying with the conditions of the relevant EA, and a program for rehabilitating the land subject to the relevant lease.¹²⁰
- The holder of the EA must comply with the plan of operations during the relevant activity.¹²¹
- When granting an EA, the administering authority may require the applicant to provide financial assurance for compliance with the EA or for other relevant costs or expenses.¹²² Financial assurance will be required before the holder of the EA commences an activity.
 - Financial assurance can be claimed by the administering authority to meet the costs of mitigating damage to the environment or of bringing the EA back into compliance.¹²³
 - Financial assurance may be discharged at the conclusion of activities and at the time the EA is surrendered. However, the administering authority may require that financial assurance remains in force until satisfied that no claim is likely to be made.
 - The form and quantum of financial assurance is determined by the administering authority, informed by the EP Act, state financial legislation and departmental policy.¹²⁴ Bank guarantees with a financial institution and cash (in limited circumstances) may be accepted.
- Financial assurance will be generally required for mining and resources activities, including most activities undertaken under a mining or petroleum lease.
- Before an EA can be surrendered, the administering authority must approve a final rehabilitation report submitted by the EA holder.¹²⁵
 - The report must contain sufficient information to allow the administering authority to decide if the conditions to which the EA was subject have been complied with, and whether the land on which the relevant activities were carried out has been satisfactorily rehabilitated.¹²⁶

PGPSA: decommissioning requirements for petroleum

The PGPSA aims to facilitate and regulate the carrying out of responsible petroleum activities and the development of a safe, efficient and viable petroleum industry. Among

¹²⁰ EPA s 288

¹²¹ EPA s 290

¹²² EPA s 292.

¹²³ EPA s 299.

¹²⁴ EPA s 295

¹²⁵ EPA s 262

¹²⁶ EPA s 264

other matters, the Act deals with the grant and administration of petroleum authorities (petroleum leases, licences, and authorities to prospect). The PGPSA contains a number of provisions relevant to decommissioning:

- The holder of an authority is required to plug and abandon petroleum wells in the prescribed way before the end of a petroleum authority.¹²⁷
 - The holder of the authority continues to be responsible for the well after abandonment until the authority ends or the land on which the well is located ceases to be within the tenure.
- The holder of an authority is required to decommission pipelines in the prescribed way before the end of a petroleum authority.¹²⁸
- The holder of an authority must remove equipment from land used for activities before the authority ends, or the land ceases to be within the authority (whichever is earlier).¹²⁹
- A petroleum authority may not be surrendered unless the relevant EA has been surrendered.¹³⁰

MRA: decommissioning requirements for mining

The MRA aims to encourage and facilitate responsible minerals prospecting, exploration and mining, and to ensure an appropriate financial return to the State. Among other matters, the Act deals with the grant and administration of mining authorities (claims, permits, leases and licences). The MRA contains a number of provisions relevant to decommissioning:

- Mining authorities (except for prospecting permits) may not be surrendered unless the relevant EA has also been surrendered.¹³¹

Victoria

Petroleum

Offshore petroleum operations conducted in Victoria's coastal waters are regulated under the *Offshore Petroleum and Greenhouse Gas Storage Act 2010*. The Act mirrors the Commonwealth OPGGS Act and contains similar if not identical provisions relating to decommissioning (e.g. surrender criteria, property removal, etc.). The Victorian offshore regime is not considered further here, except to mention that the Victorian Government may

¹²⁷ PGPSA s 292. The 'prescribed way' means the way prescribed in Schedule 3 to the PGPS Regulations.

¹²⁸ PGPSA s 559. The 'prescribed way' means the way prescribed in s 81 of the PGPS Regulations: in a way that complies with AS 2885, part 3, 'Operations and maintenance' (2012).

¹²⁹ PGPSA s 560.

¹³⁰ PGPSA s 578.

¹³¹ MRA ss 37, 107, 161, 210, 309.

ultimately wish to explore changes to their regime similar to those implemented through the Commonwealth review process.

Onshore petroleum operations in Victoria are regulated under the *Petroleum Act 1998* (PA Vic), which covers licensing, approvals, and other relevant issues including compensation, rehabilitation and royalties. Key features of the Victorian onshore petroleum regime for decommissioning include:

- Onshore petroleum companies are required to obtain approval on an operation plan before carrying out any petroleum operation, and to conduct operations in a manner consistent with the plan in force.¹³² The plan must specify what will be done to rehabilitate the relevant land.¹³³
- Operators are also required under legislation to rehabilitate any land used in carrying out extractive operations as far as practicable before an authority (e.g. a lease or licence) expires.¹³⁴
- All operators must obtain a rehabilitation bond that is acceptable to the Minister before carrying out any petroleum operations.¹³⁵ The bond may be used by the Minister to cover the costs of rehabilitation if necessary.¹³⁶ Moreover, if the bond is insufficient to cover rehabilitation costs, the Minister may recover the difference in a court of competent jurisdiction.¹³⁷
- The holder of an authority must remove all property, equipment and structures that will not be used for authorised operations, and remove all property brought onto the land under the authority, within 60 days after the authority ceases.¹³⁸

Mining

Mining and related extractive industries are regulated under the *Mineral Resources (Sustainable Development) Act 1990* (MRSDA). Key features of that regime for decommissioning include:

¹³² PA Vic ss 161, 162.

¹³³ PA Vic s 161(1)(c).

¹³⁴ PA Vic s 170. *Authority* means an exploration permit, a retention lease, a production licence or a special access authorisation.

¹³⁵ PA Vic s 173. A rehabilitation bond is an instrument acceptable to the Minister securing payment of an amount of money for rehabilitation, clean-up or pollution prevention necessary as a result of petroleum operations.

¹³⁶ PA Vic s 175.

¹³⁷ PA Vic s 175(3).

¹³⁸ PA Vic s 168; PA Vic s 166(2).

- All licensees must enter into a rehabilitation bond for an amount determined by the Minister.¹³⁹ For private land covered by a mining or prospecting licence, the Minister must, when determining the bond amount, consult with the relevant local council and the land owner.¹⁴⁰
- The holder of an authority under MRSDA must rehabilitate the land in the course of conducting operations under the authority and, insofar as practicable, complete the rehabilitation before the authority expires or otherwise ceases to apply.¹⁴¹
 - If the Minister is satisfied that the land has been rehabilitated in accordance with the approved plan/the conditions of the licence or that rehabilitation is likely to be successful, the Minister must return the rehabilitation bond to the relevant person.¹⁴²
- Land must be rehabilitated either in accordance with a rehabilitation plan approved by the Department Head (for mining licences or prospecting licences), or in accordance with the conditions of the licence (for exploration and retention licences).¹⁴³
- If a licensee fails to remove any plant from the land within six months after their license expires, the plant becomes Crown property and may be disposed of or dealt with by the Minister.¹⁴⁴

Commonwealth GHG injection and storage regime

Lodgement of securities (grant of GHG title)

Under Part 3.2 of the OPGGS Act, a person may apply to the responsible Commonwealth Minister (the Minister) for a GHG assessment permit. On receipt of the application, the Minister may issue an offer document, telling the applicant that the Minister is prepared to grant the permit. In the offer document, the Minister may specify the form and quantum of security that the applicant must lodge with the Minister to secure compliance with obligations in the OPGGS Act. If the offer is not accepted and/or required security is not lodged within

¹³⁹ MRSDA s 80.

¹⁴⁰ MRSDA s 80(2).

¹⁴¹ MRSDA s 81.

¹⁴² MRSDA s 82.

¹⁴³ MRSDA s 78.

¹⁴⁴ MRSDA s 114.

the prescribed time, the application lapses.¹⁴⁵ Similar provisions apply to GHG holding leases and injection licences.

The Minister is also empowered while a GHG title is in force to require the titleholder to lodge security with the Minister, and/or to increase the amount of security required.¹⁴⁶ Further, if a GHG title is transferred, interests in securities lodged with the Minister transfer to the incoming titleholder.¹⁴⁷

Site closing certificates

Under Part 3.4 of the OPGGS Act, a GHG injection licensee may apply to the Minister for a site closing certificate (SCC) in relation to an identified storage formation. Applications for SCCs are mandatory if the licensee has ceased injection and storage operations. Following receipt of an application, the Minister may issue a pre-certificate notice, telling the applicant that the Minister is prepared to issue a SCC. The Minister may only issue the notice if satisfied that GHG injection operations have ceased or no operations were undertaken, and that the applicant has complied with relevant statutory requirements, including the regulations, or the Minister is satisfied there are sufficient grounds to warrant issuing the SCC.¹⁴⁸

The pre-certificate notice must specify a program of operations to be carried out by the Commonwealth for the purposes of monitoring the behaviour of GHG substances. The notice must also provide an estimate of costs for the program and specify the form and quantum of security to be lodged with the Minister to cover costs.¹⁴⁹ If the applicant fails to lodge security with the Minister within 60 days (or a longer period of up to 180 days if allowed by the Minister), the application lapses.

If an applicant for a SCC has been given a pre-certificate notice, and has lodged the specified security within the period mentioned above, the Minister must issue a SCC to the applicant. The SCC is required for the Minister to give consent to surrender a GHG injection licence.¹⁵⁰ When a GHG title is transferred, a SCC that has been issued will transfer to the

¹⁴⁵ 'Prescribed time' is the time for accepting offers and lodging security in ss 431 and 433 of the OPGGS Act.

¹⁴⁶ OPGGS Act s 454(2); OPGGS Act s 454(1).

¹⁴⁷ OPGGS Act s 455.

¹⁴⁸ OPGGS Act s 388(7); OPGGS Act s 388(6).

¹⁴⁹ OPGGS Act s 391.

¹⁵⁰ OPGGS Act s 442(3)(g); (h).

incoming titleholder, along with any securities in force.¹⁵¹ SCCs continue in force indefinitely.¹⁵²

Discharge of securities

Under the *Offshore Petroleum and Greenhouse Gas Storage (Greenhouse Gas Injection and Storage) Regulations 2011* (IS Regulations), if the Minister is satisfied that each obligation for which security was lodged has been met, the Minister must discharge the security to the titleholder. If the security was used to address a situation for which it was lodged, the Minister must discharge the security less the amount used.¹⁵³

Decommissioning plans

An application for the grant of a GHG injection licence must include a provisional decommissioning plan, dealing with decommissioning of structures and equipment and remediation of the site.¹⁵⁴ The Minister must not approve the application for the grant of the licence unless the Minister is satisfied that the plan is suitable.¹⁵⁵ The plan must be reviewed at least once in every 10 years during the injection phase of a project, and at least five years before the time when injection is expected to cease, to take into account the evolution of industry best practice, the conduct of operations, and whether the site plan has been or is to be varied to include significant new infrastructure during the injection phase of the project.¹⁵⁶

A licensee must submit a final decommissioning plan at least 12 months before operations cease. The Minister must not approve the grant of a SCC unless the Minister is satisfied that the plan is suitable.¹⁵⁷

Long term liability

Part 3.4, Division 8 of the OPGGS Act deals with long-term liability. Under that Division, the Minister may decide on a day that is at least 15 years following the issue of a SCC, that the period commencing on the day that GHG injection operations ceased and ending on the day the Minister makes the decision is the closure assurance period.¹⁵⁸ The Minister may make

¹⁵¹ OPGGS Act ss 395; 396.

¹⁵² OPGGS Act s 394.

¹⁵³ IS Regulations reg 4.8(3); (4).

¹⁵⁴ IS Regulations reg. 4.7(2).

¹⁵⁵ IS Regulations reg. 4.7(3).

¹⁵⁶ IS Regulations reg. 4.7(5); (6).

¹⁵⁷ IS Regulations reg. 4.7(7); (8).

¹⁵⁸ OPGGS Act s 399(1).

this determination if the Minister is satisfied that there are no significant risks associated with a GHG substance that has been injected into the storage formation for which the SCC was issued.¹⁵⁹

If, following the end of the closure assurance period, a person who is or was the holder of an injection licence incurs liability for damages for an act done or omitted to be done in carrying out operations authorised by the licence, the Commonwealth must indemnify that person against the liability. If the person has ceased to exist, the liability is taken on by the Commonwealth.¹⁶⁰

¹⁵⁹ OPGGS Act s 399(1).

¹⁶⁰ OPGGS Act ss 400; 401.