



Australian Government

National Offshore Petroleum
Titles Administrator

Offshore Petroleum and Greenhouse Gas Storage Titles



An introduction to the Greenhouse gas (GHG) storage legislative framework



Disclaimer



The information in this presentation is a guide only and does not replace or amend information provided in the *Offshore Petroleum and Greenhouse Gas Storage Act* (the OPGGS Act), associated regulations and guidelines available at: www.nopta.gov.au/legislation.



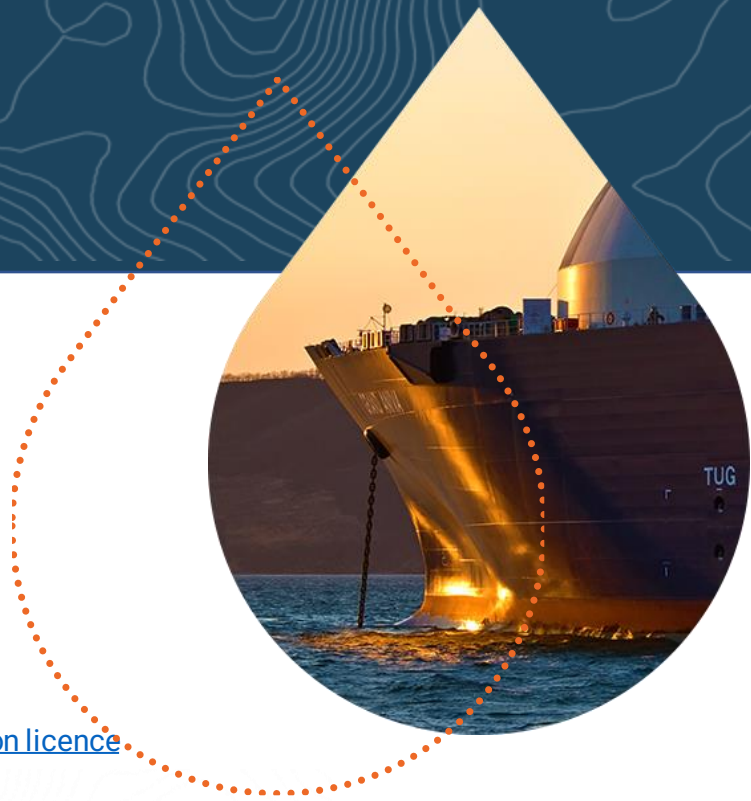
It is not intended as legal advice and should not be relied on when making commercial decisions.



In the event that there is any discrepancy between this information and the legislation or regulations, the legislation or regulations has precedence.

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Key OPGGS Act institutions and functions – GHG

National Offshore Petroleum Titles Administrator (NOPTA)

- Contact for titles applications, guidance & associated title administration
- Provides technical advice to the relevant decision maker
- Manages the titles register
- Monitors data and title compliance aspects
- Decision maker for transfers, dealings and change in control applications

Responsible Commonwealth Minister (RCM)

- Decision maker for all GHG decisions (excluding infrastructure licences, pipeline licences & cross-boundary assessment permits¹)

Offshore Petroleum Joint Authority (JA)

- Decision maker for GHG decisions relating to infrastructure and pipeline licence

Department of Industry, Science, and Resources (DISR)

- Offshore GHG policy and legislation development and oversight
- Offshore GHG acreage release

National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA)

- Independent regulator for health and safety, structural (well) integrity and environmental management for all offshore GHG operations in Commonwealth waters and in coastal waters where regulatory powers & functions have been conferred.

¹ The Cross-Boundary Authority is the decision maker on cross-boundary applications

Legislation and guidance information for offshore GHG title applications

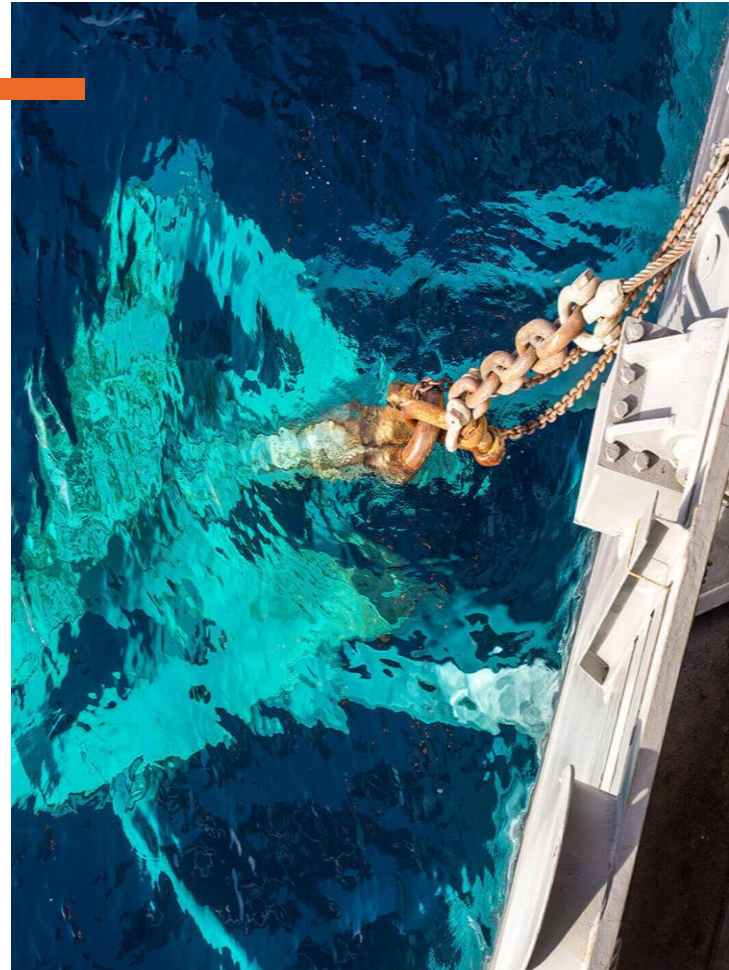
Legislation

Offshore Petroleum and Greenhouse Gas Storage Act 2006

- *Offshore Petroleum and Greenhouse Gas Storage (Greenhouse Gas Injection and Storage) Regulations 2011 (GHG Regulations)*
- *Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulation 2011 (RMA Regulations)*

Guidance

- Offshore GHG Assessment Permits
 - Guideline: Offshore GHG Assessment Permits – Work Bid
 - Guideline: Offshore GHG Declaration of Storage Formation
 - Guideline: Offshore GHG Consolidated and Cross-boundary GHG Assessment Permits – Work Bid
- GHG Application Forms
- Forms Guide



What's in the Legislation for Offshore GHG titles

An offshore GHG title grants the titleholder the right to explore, appraise, inject and store a GHG substance (depending on the title type).

Injection and storage of GHG substances in offshore areas, and sets out a basic framework of rights, duties, obligations, entitlements and responsibilities of governments and industry

Additional options for the storage of any GHG substance that may be produced through petroleum operations.

Access and property rights through a title system similar to that used for petroleum for exploring and using GHG storage formation and injection sites

Mechanisms for managing interactions with petroleum industry

Right to use GHG for enhanced petroleum recovery remain unchanged and can be undertaken under a petroleum production licence.

Ensuring safe, secure and permanent storage of GHG substance

Site closure and treatment of long-term liability

Titles alone do not authorise GHG activities

GHG titles/storage

» The legislation requires
» 'permanent storage' of a GHG
» substance

The storage formation must be wholly situated in the individual GHG Assessment Permit area, Petroleum Retention Lease area or Petroleum Production Licence area and wholly within the Commonwealth Waters

The plume cannot migrate outside of the title area.

GHG assessment permits and holding leases may require a significant risk of significant adverse impact assessment (e.g.; s27, s292 and s321 of the OPGGS Act) prior to carrying out Key GHG Operations.

May need a significant risk of significant adverse impact assessment prior to offering a GHG injection licence (s28, s362).

Pathways to a GHG title

The OPGGS Act provides two pathways to obtain a GHG Injection License

1. GHG Assessment Permit (through acreage release process similar to petroleum)



2. If you have an existing retention lease or production licence petroleum title (conditions apply)

Petroleum Retention Lease GHG → Holding lease (granted under s345 of the OPGGS Act)

Petroleum Production licence → GHG injection licence

Conditions:

A declaration of identified storage formation (DoSF) must be approved first before applying for an injection licence (s312 of the OPGGS Act – see slide 13)

Existing petroleum title holders should be aware of potential complexities in relation to tied titles

NB:

- There is no pathway from a petroleum **exploration permit** to a GHG assessment permit
- The OPGGS Act does permit some GHG exploration in petroleum titles such as exploring the title area for potential GHG storage formations or potential injection site(s), requirements of notification under RMA regulations –Part 6

GHG Acreage Release Process

GHG acreage is released on an irregular basis in response to expressions of interest.

The acreage release process is similar to petroleum

Nomination of areas in designated timeframe

Review of nominated areas

Public consultation on proposed areas

Decision made on areas to be released for bidding

Bidding opened

Applications received and assessed

Decision made to offer / refuse application

Comparison of Work Bid Petroleum & GHG titles

Action	Petroleum Titles	GHG Titles
EXPLORE	Exploration Permit <ul style="list-style-type: none"> Initial 6 year work program then relinquish 50% for each further 5 year term 	GHG Assessment Permit <ul style="list-style-type: none"> Initial 6 year term with work program; then 3 year renewal term (maximum two). No relinquishment.
DECLARE Required to progress to leases or licences	Petroleum Location (2 plus 2 years) (Declared Discovery) Requires: <ul style="list-style-type: none"> Recovery of hydrocarbons Understanding of pool extent (at P₅₀) 	GHG Storage Formation (valid for term of project, and must be wholly within the title) Requires: <ul style="list-style-type: none"> Detailed understanding of the characteristics and extent of the storage formation and the fundamental suitability determinants Understanding of extent of plume migration Some or all of the source from petroleum operations
APPRAISE	Retention Lease (5 years) <ul style="list-style-type: none"> Field not currently commercial but likely to be within 15 years Multiple renewals 	GHG Holding Lease (5 years) <ul style="list-style-type: none"> Not currently in a position to inject and store a GHG substance but is likely to be within 15 years (for renewal, within 10 years) Can only be renewed once
OPERATE & DECOMMISSIONING	Production Licence (life of field) <ul style="list-style-type: none"> Produce hydrocarbons Production requires a Field Development Plan & rate of recovery 	GHG Injection Licence <ul style="list-style-type: none"> Inject and store greenhouse gases (>100,000 tonnes) Injection requires a Site Plan/Decommissioning Plan Other regulatory approvals for example sea dumping permit from the Department of Climate Change, Energy, the Environment and Water.

Estimated timeframes - GHG injection licence via a petroleum production licence

Declaration of identified storage formation



GHG Injection licence



Injection activities commence

- Application to NOPTA – Assessment – RCM decision
- Timeframe – at least 6 months

- Application to NOPTA , inc site plan, decommissioning plan – Assessment – RCM decision
- Timeframe – at least 8 months

- Environmental and other [regulatory approvals](#) may be applicable; for example a sea dumping permit from Department of Climate Change Environment Energy and Water (DCCEEW)

Category of Storage Formation

	Category	Criteria
i.	A 'potential GHG storage formation' (s 20)	<ul style="list-style-type: none">• Suitable for storage, with or without engineering enhancements.• Further detailed analysis of formation is necessary before can progress to criteria (ii).
ii.	An 'eligible GHG storage formation' (s 21)	<ul style="list-style-type: none">• Suitable for storage, with or without engineering enhancements (at least 100 000 tonnes).• Must notify RCM within 30 days of reasonable suspicion of eligible formation (s 451).• May apply for a storage formation declaration to progress to criteria (iii).
iii.	An 'identified GHG storage formation' (s 312)	<ul style="list-style-type: none">• Assessed in accordance with 'fundamental suitability determinants' under s 21(8).• RCM declares as identified storage formation.

Application for an Identified Storage Formation

Intention of OPGGS Act is for titleholder to demonstrate unequivocal, high-quality containment.

In accordance with s 21(8) of the OPGGS Act a permittee must clearly outline the ‘fundamental suitability determinants’ for the storage site:

- The amount of GHG that may be stored
- The particular GHG substances suitable to be stored
- The proposed injection point or points
- The proposed injection period
- Any proposed engineering enhancements
- The effective sealing feature of the storage site
- Understand the extent of the plume migration (at p10)

Act and Regulations designed to ensure ‘what goes in, stays in!’

See the [Greenhouse gas guideline—Declaration of an identified GHG storage formation](#) for further information in applying for a Declaration of Identified Storage Formation

Coming Soon

- GHG Injection licence guideline
- GHG Holding lease

Published on NOPTA Website

[Application Fact Sheets:](#)

- GHG Cancellation
- GHG Surrender
- Key GHG Operations
- Notification of an Eligible GHG Storage Formation
- GHG Expiry
- GHG Search Authority, Special Authority and Research Consent

Where to find more information

Acreage Release | GHGAcreage@industry.gov.au

- Current release areas open for bidding
- Nomination of blocks for future acreage release
- Australian Petroleum News eNewsletter (subscribe - www.industry.gov.au/subscribe-to-australian-petroleum-news)

NOPTA | www.nopta.gov.au & <https://public.neats.nopta.gov.au/>

- Guidelines and factsheets
- Application forms
- Current application fees and annual levies

NOPIMS | <http://www.ga.gov.au/nopims>

- Metadata about new & legacy well, survey and title activities from the date of activity commencement
- More than a million searchable records, linked to downloadable data

NOPSEMA | www.nopsema.gov.au

- Guidance Notes on Safety Case, Well Operations Management Plan, Environment Plan
- Links to Commonwealth Marine Reserves and National Parks information

If you would like to discuss anything in this presentation please contact NOPTA at:
ghg@nopta.gov.au