



Australian Government

**Department of Industry, Science,
Energy and Resources**

Guideline - Grant and Administration of a Retention Lease and Related Matters

In relation to the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*

May 2019

This document has been developed as a general guide only. It is subject to, and does not replace or amend the requirements of the [Offshore Petroleum and Greenhouse Gas Storage Act 2006](#) and associated Regulations, which should be read in conjunction with this guideline.

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Purpose

The purpose of this guideline is to assist existing and prospective titleholders, and other stakeholders, to understand the requirements, indicative timing and processes leading to the determination of an application for a retention lease (initial grant or renewal) under the [Offshore Petroleum and Greenhouse Gas Storage Act 2006](#) (OPGGSA).

General

- 1.1. A retention lease encourages the timely development of petroleum resources and provides security of title for those resources that are not currently commercially viable but are likely to become so within 15 years.
- 1.2. The National Offshore Petroleum Titles Administrator (NOPTA) is responsible for assessing applications for retention lease grants, renewals and variations. The Joint Authority makes the associated decisions on these applications.
- 1.3. The objective of a retention lease is to ensure a lessee actively seeks to address barriers to the commercial development of petroleum resources and, where it is commercially viable to do so, brings those resources to production in a timely manner.
- 1.4. When a retention lease is granted, the block(s) included in the lease cease to be part of the underlying exploration permit or production licence. In the case of an exploration permit, the minimum work requirements (condition of title) of the underlying permit are not reduced after the excision of the block(s) unless the entire permit ceases to be in force (i.e. the retention lease is granted over the entire permit).
- 1.5. The term of a retention lease (initial grant or renewal) is five years. Retention leases can be renewed for further five year periods if the criteria in s154 are met.
- 1.6. Titleholders carrying out activities in an offshore area must not interfere with any activities of another person being lawfully carried on, and must also ensure that the activities do not interfere with navigation, fishing, conservation of the resources of the sea and seabed or the enjoyment of native title rights and interests (within the meaning of the [Native Title Act 1993](#)), to a greater extent than is necessary for the reasonable exercise of the rights and performance of the duties of the titleholder (s280).
- 1.7. If a retention lease is granted it is the titleholder's responsibility to contact relevant agencies and representative bodies prior to undertaking any work in the lease area.
- 1.8. Retention lease holders must comply with the data management requirements of the [Offshore Petroleum and Greenhouse Gas Storage \(Resource Management and Administration\) Regulations 2011](#).
- 1.9. NOPTA and the Joint Authority will monitor the lessee's compliance with the work program and additional conditions through mechanisms such as the annual titles assessment report. In some cases the lessee may be required to undertake a re-evaluation of commercial viability during the lease term (described further throughout these guidelines).

Process for an application for a retention lease (initial s141, s147 or renewal s153)

- 2.1 Applicants may consult with NOPTA to discuss the process for submitting an application.
- 2.2 Government will respect any information provided on a commercial-in-confidence basis.
- 2.3 Applications under s141 (application by the holder of petroleum exploration permit), s147 (application by the holder of a life-of-field production licence), or s153 (application for renewal of retention lease) are submitted to NOPTA for consideration by the Joint Authority.
- 2.4 For further details see the application forms at <http://www.nopta.gov.au/forms/forms.html>.
- 2.5 There are fees for these applications, which can be found at <http://www.nopta.gov.au/cost-recovery-and-fees.html>.
- 2.6 For assessment timeframes see the Joint Authority Operating Protocols at <http://www.nopta.gov.au/documents/JA-operating-protocols-july2015.pdf>.
- 2.7 An outline of this process is provided in Figure 1.

Timing

Initial

Exploration Permit Holders

- 2.8 An application for a retention lease by the holder of an exploration permit (s141) may be made within the application period specified in s141(3) which is two years after the day on which the block(s) was declared a location (the *declaration day*). This may be extended by a further two years at NOPTA's discretion if a written application for an extension is made by the titleholder within two years from the declaration day.
- 2.9 The exploration permit holder should consider the potential legal consequences of the provisions in s188 of not making an application within the application period.

Production Licence Holders

- 2.10 Where there is petroleum in a block or blocks held by a production licensee but no petroleum recovery operations are taking place in the block or blocks ('the unused area'), an application for a retention lease by the holder of a production licence may be made within five years of:
 - 2.10.1 the day on which the production licence was granted; or
 - 2.10.2 if petroleum recovery operations have been carried on under the licence in the unused area, five years from the last day on which such operations occurred (s147(3)).
- 2.11 The production licensee should consider the potential legal consequences of the provisions in s166 of not making an application within the application period.

Renewal

- 2.12 An application for the renewal of a retention lease (s153) may be made not less than 180 days and not more than 12 months before the day on which the retention lease is due to expire (s153(2)). NOPTA has discretion to accept the lodgement of a renewal application less than 180 days before the expiry date, but no later than the expiry date (s153(3)). Once an application is lodged, the retention lease will continue in force until the renewal is granted, refused or the application lapses (s153(5)).

Submission of Application

- 2.13 Please refer to the application form for submission information at <http://www.nopta.gov.au/forms/forms.html>.
- 2.14 In the application figures should be legible in the text, and are also to be provided as separate files in an attached Appendix at a resolution of at least 300 dpi. If applicable, seismic sections should be included with and without interpretation.
- 2.15 An application must include (s141, s147 or s153):
 - 2.15.1 proposals for work and expenditure;
 - 2.15.2 the current commercial viability for the recovery of petroleum; and
 - 2.15.3 the possible future commercial viability of the recovery of petroleum.
- 2.16 Refer to Attachment A for detail on information that should be included in the application.
- 2.17 The application must be accompanied by the relevant fee (see <http://www.nopta.gov.au/documents/schedule-of-fees.pdf>).
- 2.18 Upon receipt of an application, NOPTA will send the applicant an acknowledgement and application reference number.

Request for further information

- 2.19 NOPTA will review the application and may require an applicant to provide further information by written notice under s258(2). NOPTA may also request a meeting with the applicant to discuss any outstanding issues. The Joint Authority may also request that NOPTA seek additional information from the applicant.
- 2.20 If the further information requested by NOPTA, under s258(2), has not been submitted within the specified time, the Joint Authority may, by written notice to the applicant, choose not to consider or take any further action in relation to the application (s258(3)).
- 2.21 NOPTA may seek and/or receive submissions from third parties on a retention lease application. Further information on third party submissions is provided at Item 3.27.

Advice to Joint Authority

- 2.22 When sufficient information has been provided by the applicant, NOPTA will prepare advice for the Joint Authority which recommends whether the application should be granted or refused. The advice may also outline any conditions recommended to be placed on the lease and the reasons for those conditions. The Joint Authority may apply conditions to the offer of the grant or renewal of a retention lease as it deems appropriate (s136).
- 2.23 NOPTA will consult with applicants before it recommends that the Joint Authority apply significant changes to an applicant's proposed work program or significant additional conditions to the grant of the retention lease.

Offer and grant of a retention lease

- 2.24 If the Joint Authority agrees to grant the retention lease, NOPTA will communicate the offer of grant to the applicant, including the work program and any additional conditions. If the offer is accepted by the applicant within the time period specified in s260, NOPTA will grant the lease (s144, s150, s156).
- 2.25 The retention lease comes into force on the date on which is granted, or a later date as specified in the lease instrument.

Refusal to grant a retention lease

Refusal of an initial grant under s143 (application by the holder of petroleum exploration permit)

- 2.26 If the Joint Authority is not satisfied that the criteria specified in s142 have been met for any of the blocks within the application (i.e. if the block(s) does not contain petroleum; is not likely to be commercially viable within 15 years; or is commercially viable now) the Joint Authority must refuse to grant the application in respect of those block(s) (s143). NOPTA will advise the applicant of the Joint Authority's decision.
- 2.27 If the Joint Authority refuses to grant an application for a retention lease for a block(s) constituting a location because it is not satisfied that (a) the block(s) contains petroleum; or (b) that recovery of petroleum from the block(s) is likely to become commercially viable within 15 years; the declaration of a location over that block(s) must be revoked by the Joint Authority, by a notice published in the Gazette: s132(7) or s132(7A). If the applicant then wants to apply for a petroleum production licence in relation to the block(s), it must re-nominate the block(s) for declaration as a location before it applies for the petroleum production licence.
- 2.28 If the Joint Authority refuses to grant an application for a retention lease for a block(s) the permittee should consider what continuing rights it may be entitled to in relation to that block(s) under the exploration permit.
- 2.29 If the Joint Authority refuses to grant a retention lease for block(s) included in the application on the basis that the block(s) is commercially viable at the time of application, the applicant has 12 months from the day on which notice of refusal to grant of the retention lease is given, or until the end of the application period specified in s169(1) (whichever ends last), to apply for a production licence: s169(3).
- 2.30 The exploration permit holder should consider the potential legal consequences of the provisions in section 188 of not making an application, under s168, within the application period.

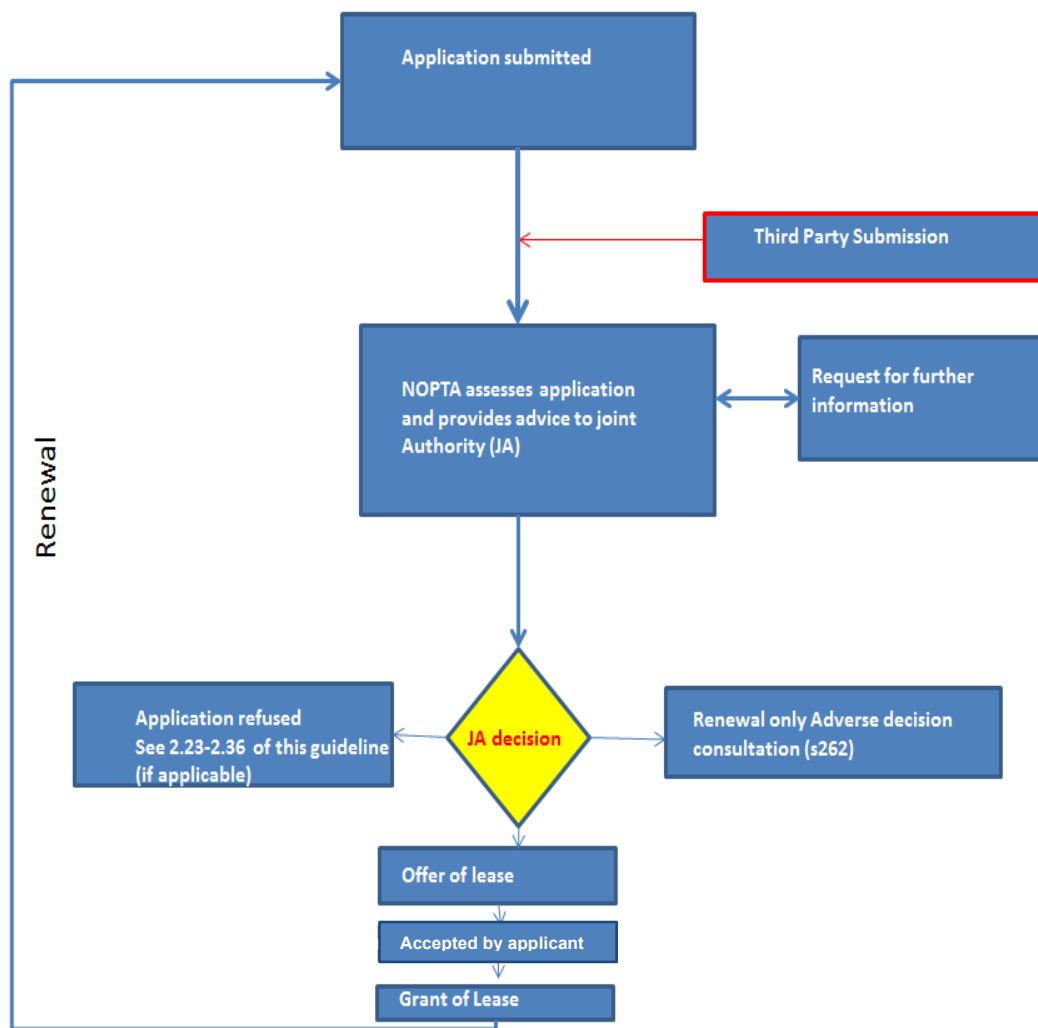
Refusal of an initial grant under s149 (application by the holder of a life-of-field production licence)

- 2.31 If the Joint Authority is not satisfied that the criteria specified in s148 have been met in the application (i.e. no petroleum in the block(s); or if recovery of petroleum from the unused area will not be commercially viable within 15 years; or is commercially viable now) the Joint Authority must refuse to grant the application (s149).
- 2.32 A decision to refuse to grant a retention lease from a production licence is subject to the consultation procedures in s262. NOPTA will give at least 30 days written notice to the lessee (and other persons it deems appropriate) of the Joint Authority's intention to refuse the grant of the retention lease (s262(2)). The notice will include the reasons for the intended refusal and a date by which the lessee or other notified persons may make a written submission on the matter (s262(3)). If a written submission is made, the Joint Authority will take it into account when making the decision (s262(4)).
- 2.33 If the Joint Authority decides to refuse the application, NOPTA will advise the applicant in writing of this decision in accordance with s149.
- 2.34 If the Joint Authority refuses to grant an application for a production licence for a block(s), the licensee should consider what continuing rights it may be entitled to in relation to that block(s) under the production licence.

Refusal of a renewal under s155

- 2.35 When considering the renewal of a retention lease, the Joint Authority will determine whether the applicant has met all of the conditions of the lease, Chapters 2, 4, 6 and Part 7.1 of the OPGGSA and associated regulations. If all lease conditions and legislative provisions have not been met, and the Joint Authority is not satisfied that there are sufficient grounds to warrant the grant of the renewal, the Joint Authority must refuse to grant the renewal (s155(2)).
- 2.36 If the Joint Authority is not satisfied that the commerciality criteria have been met (i.e. will not be commercially viable within 15 years or is commercially viable now), the Joint Authority must refuse to renew the retention lease (s155(3) and (4)).
- 2.37 A decision to refuse renewal of a retention lease is subject to the consultation procedures in s262. NOPTA will give at least 30 days written notice to the lessee (and other persons it deems appropriate) of the Joint Authority's intention to refuse the lease's renewal (s262(2)). The notice will include the reasons for the intended refusal and a date by which the lessee or other notified persons may make a written submission on the matter (s262(3)) which will be taken into account by the Joint Authority in its decision (s262(4)). If the Joint Authority decides to refuse the renewal application, NOPTA will advise the applicant in writing of this decision in accordance with s155.
- 2.38 If the expiry date of the retention lease has passed, and the titleholder applies for a production licence within the 12 month period specified in the notice, the lease continues in force until the production licence application is granted, refused or lapses (s155(6)).
- 2.39 If the expiry date of the retention lease has passed, and an application for a production licence is not made within the 12 month period specified in the notice, the retention lease will cease and the block(s) covered by the retention lease will revert to vacant acreage at the end of the 12 month period (s155(7)).

Figure 1: Retention Lease Approval Process Overview



Assessment of a retention lease

- 3.1 Each application will be assessed on its merits consistent with the objectives of the OPGGSA and this guideline. The overriding basis for assessment is commerciality.

Presence of petroleum (initial grant s141)

- 3.2 The Joint Authority must be satisfied that the block(s) specified in the application contain petroleum (s142).

Commerciality

- 3.3 NOPTA and the Joint Authority will rigorously apply the commerciality criteria to all applications for the grant or renewal of a retention lease.
- 3.4 The Joint Authority must be satisfied that the application meets the criteria in the applicable section of the OPGGSA. This includes applications by holders of exploration permits (s142) and life-of-field production licences (s148), and lease renewal applications (s154). In all instances, it requires that the recovery of petroleum from the block(s) in the lease area:
- 3.4.1 is not commercially viable at the time of the application; and
 - 3.4.2 is likely to become commercially viable within 15 years from when the application is submitted.
- 3.5 For the purposes of s142, s148 and s154:
- likely* is to be interpreted as to convey the sense of a 'substantial or real chance' as distinct from what is a mere possibility; and
- commercially viable* is to be interpreted to mean that the petroleum could be developed based on:
- a) existing knowledge of the field (including field extent and initial in-place and recoverable resource estimates at proved, possible and probable levels);
 - b) prevailing market conditions;
 - c) technology readily available within the industry; and
 - d) an internal rate of return that is considered acceptable for the type of project under consideration by a reasonable petroleum developer and by investors or lenders to the industry.
- 3.6 An applicant's assessment of commerciality must adequately consider all reasonable development concepts including domestic gas, liquefied natural gas and gas to liquids, as appropriate, and not just a preferred development option. Refer to Attachment A for further detail on information sought.
- 3.7 This assessment of development concepts should include the technical and economic assumptions, methodology and conclusions reached by the applicant and sufficient supporting information across all development options which will support NOPTA's and the Joint Authority's examination of commercial viability. Assessments should be consistent across development concepts.

Cash flow factors

- 3.8 In assessing commerciality NOPTA and the Joint Authority will consider the following factors:
- 3.8.1 internal rate of return (IRR) for the project based on current 2C (P50) estimates of reserves and P50 capital expenditure;
 - 3.8.2 the degree of certainty that exists in relation to the key drivers of commercial viability, in particular recoverable resources and estimates for capital expenditure; and
 - 3.8.3 the justification of minimum (or hurdle) rates for IRR or other criteria used by a proponent to assess commerciality, including whether they reflect the level of risk for such a project and the degree of confidence ('optimism' or 'pessimism') associated with the other assumptions.
- 3.9 Generally the Joint Authority will assess the commercial viability of a project based on the IRR at the 2C (P50 proved and probable) level of confidence for reserves and the P50 estimates for capital expenditure. An IRR of 12% or greater after all relevant taxes are applied will usually be considered commercially viable.
- 3.10 Where the estimated IRR is sufficient for the project to proceed under current market conditions and the applicant still does not believe the project is commercially viable, the applicant should provide evidence that there are other factors preventing commercial development of the resource (e.g. market issues or technical risks).
- 3.11 Consideration may also be given to the range of potential Net Present Values (NPV) for the project. NPV calculations should use the Weighted Average Cost of Capital of the Lessee or the Long Term Bond Rate plus 5% as the discount rate. Where a NPV other than the base case (2C resources/P50 capital expenditure) is provided, each of the following scenarios should be presented as a minimum:
- | Scenario | Resources | Capital Expenditure |
|-----------|----------------------------------|---------------------|
| P90 | 1C (Proved) | P90 |
| Base Case | 2C (Proved & Probable) | P50 |
| P10 | 3C (Proved, Probable & Possible) | P10 |
- 3.12 A petroleum resource will not be considered commercially unviable because of an applicant's inability or unwillingness to acquire or apply proven and available technology or its lack of skilled personnel or financial capability.

Market Issues

- 3.13 In addressing market issues, including market access, prices, and timing of market opportunities, it will be accepted that a potential market exists for liquids (crude oil, condensate or Liquefied Petroleum Gas (LPG)) recoverable from a project and that the terms and conditions of supply are part of determining the viability of the project.
- 3.14 It is recognised that the market for non-liquid (natural gas) is often characterised by large, long term contracts, at specified rates, time periods and quantities. In some circumstances the Joint Authority may decide that an otherwise commercially viable non-liquids project could not proceed due to a genuine and demonstrated inability by the proponent to obtain a contract which would support development at prevailing market terms and conditions.
- 3.15 Applicants should provide evidence of efforts made to obtain contracts for the sale of non-liquids, including any information on approaches by third parties to purchase gas, engagements with potential buyers and reasons for not proceeding.

Infrastructure access

- 3.16 Commercial viability may depend on combining a development with other potential third party developments, or access to third party facilities or technology. In such cases, the petroleum resource may not be considered commercially viable if the titleholder is unable to complete an agreement to jointly develop and/or access facilities or technology which facilitates an acceptable rate of return.
- 3.17 Assessments of commercial viability will take into account efforts to secure infrastructure access and the timing of field development where dependent on infrastructure that is planned or under construction.

Pricing considerations

- 3.18 NOPTA and the Joint Authority may apply a commodity price appropriate to the life of the field and will not necessarily accept the price used by the applicant in its assessment if it is considered unreasonable.
- 3.19 Relevant information, such as the domestic gas price, contract availability, access to markets, existing infrastructure and geotechnical considerations, may be tested by NOPTA using information supplied in the application, sought from the applicant as part of a request for further information, or sourced independently in reaching a decision on commerciality.

Work program and expenditure

- 3.20 The work program should address the primary constraints to development of the petroleum resource that have been identified by the applicant. It should identify key decision points that may result from activities and how these activities contribute to the commercialisation of the resource and include indicative relevant expenditure.
- 3.21 Where a resource is located across two or more adjacent titles, held by the same applicant, there should be a standalone work program for each lease area with work program activities and indicative expenditure specific to each lease.
- 3.22 The work program should address other areas where information on which to base commercial decisions is insufficient. For example, further seismic definition, appraisal drilling, environmental studies or other technical activities may be appropriate to better define the resource. All expected activities should be explicitly addressed, including clear descriptions of the work to be undertaken where engineering, environmental or marketing studies are proposed.
- 3.23 The application should also contain a strategy for assessing other prospective reservoirs, including potentially drillable prospects in the lease area. This is to ensure that those parts of the lease area beyond the identified field are adequately explored as if they were part of an exploration permit.
- 3.24 Applicants are expected to identify the phasing of activities. In general, a year-by-year breakdown for the five year retention lease term is not required but the work program should be consistent (with regards to timing, the activities proposed and the level of effort) with what a titleholder could be expected to reasonably carry out in order to commercialise the project in a timely manner.
- 3.25 Annual reporting of activities carried out by lessees will be required through the annual title assessment reports whereby NOPTA will assess the lessee's compliance against the work program and ultimately towards commerciality.
- 3.26 In the case of a lease renewal, lessees should describe how the work program to date has made progress towards removing identified commercial barriers.

Third party submissions

- 3.27 NOPTA may seek and/or receive third party submissions relating to the commercialisation of petroleum resources which are or may be the subject of a retention lease application or renewal.
- 3.28 NOPTA and the Joint Authority will consider such submissions where appropriate through the lease application or renewal assessment process, or as part of a review of commerciality, and may take submissions into account at any time over the life of a title.
- 3.29 Where pertaining to an application for a retention lease, a submission should ideally be made within 45 days of the application being received by NOPTA.
- 3.30 NOPTA may choose to consult with the applicant upon receiving third party submissions, but the submission will not be made available to the applicant. Submissions will be treated as commercial in confidence.
- 3.31 No commercially sensitive information from the application will be disclosed to third parties.
- 3.32 The assumptions used by third parties will be tested in the same manner in which the claims of the applicant are tested. NOPTA will not take into account claims by either the applicant or third parties where those claims are deemed to be unreasonable.
- 3.33 All third party submissions should be sent to titles@nopta.gov.au.
- 3.34 Information on retention leases and other titles can found on NOPTA's National Electronic Approvals Tracking System (NEATS) website, see <http://neats.nopta.gov.au/>.
- 3.35 The approvals tracking page on NEATS (<http://neats.nopta.gov.au/ApprovalTracking>) can be accessed to view current applications.

Variation of retention lease conditions

- 4.1 If a lessee considers there are valid reasons to request a change to any conditions of a retention lease, the lessee may request that the Joint Authority vary those conditions (s264).
- 4.2 Applications for a variation must be submitted to NOPTA on the application form found at <http://www.nopta.gov.au/forms/forms.html>. Applications are subject to an application fee (<http://www.nopta.gov.au/documents/schedule-of-fees.pdf>) and should be lodged in a timely manner and before any work program requirements associated with the conditions proposed to be varied are due to be met. Failure to meet a condition or work program requirement within the agreed timeframe will result in the lessee being in breach of its obligations under the OPGGSA.
- 4.3 The time taken to consider the application will depend primarily on the complexity of the variation proposed and the information provided by the applicant in support of the application.

Re-evaluation of commercial viability (s136(5))

- 5.1 During the term of a retention lease, the Joint Authority may have reason to believe that the commercial status of the retention lease has changed since the grant or renewal of the title, such that the development of petroleum resources in the lease area may have become commercially viable or is unlikely to become commercially viable within 15 years.
- 5.2 All retention leases are subject to a statutory condition that if NOPTA gives the lessee a written notice requesting the lessee to re-evaluate the commercial viability of petroleum production in the lease area and report the results to NOPTA, the lessee must comply with the request within 90 days (s136(5)); or a longer period allowed by NOPTA, if the lessee requests a longer period in writing within the 90 day period (s135(6)).
- 5.3 Only one re-evaluation under s136 can be requested per lease term.
- 5.4 A request for re-evaluation under s136(5) may require the lessee to carry out additional work to that required by the lease conditions. This additional work may include seismic surveying, re-interpretation of existing data, cost or marketing analyses or simulations, but will not include the drilling of a well.
- 5.5 If activities to be undertaken as part of a re-evaluation (such as seismic surveying) cannot be undertaken and evaluated within 90 days, the lessee should discuss this with NOPTA and request a longer period in writing, which may be granted at NOPTA's discretion.
- 5.6 Following an assessment, NOPTA will advise the Joint Authority of the results of the applicant's re-evaluation.
- 5.7 On the basis of the results of the re-evaluation, the Joint Authority may form the opinion that the recovery of petroleum is commercially viable. If so, the Joint Authority may seek to revoke the retention lease (see item 6 below).

Revocation of a retention lease (s158)

- 6.1 If, after re-evaluation under s136(5), the Joint Authority forms the opinion that the recovery of petroleum is commercially viable (s157(1)), it may:
 - 6.1.1 notify the lessee, and any other parties that it thinks appropriate, of its intention to revoke the lease; and
 - 6.1.2 give the lessee, and other notified interested parties, at least 30 days to make a submission on the proposed revocation (s157(2), s157(3)).
- 6.2 After considering any submissions, if the Joint Authority still decides to revoke the retention lease, it must do so by written notice to the lessee (s158(1)).
- 6.3 If the lessee is given a notice to revoke the lease under s158(1) the lessee has 12 months from the day of the notice of revocation to apply for a production licence over the block(s) that were the subject of the retention lease. If an application for a production licence is not made within this period, the revocation of the lease takes effect 12 months after the date of service of the notice. If an application for a production licence is made within the 12 month period, the revocation will take effect on:
 - 6.3.1 the date of grant of a production licence;
 - 6.3.2 the date of refusal of a production licence; or
 - 6.3.3 the date when the application lapses (s158(2)).
- 6.4 If the revocation takes effect and no production licence has been granted, the block(s) making up the retention lease revert to vacant acreage.

Surrender or Cancellation

- 7.1 A lessee may apply at any time for consent to surrender the lease, refer to part 2.12 of the OPGGSA.
- 7.2 A retention lease may be cancelled if any of the grounds for cancellation in s274 arise. Consultation procedures in s276 apply.

Table of revisions

Date	Version	Purpose	Jurisdiction
January 2020	3	Update department name	Commonwealth
May 2019	2	Clarification on application process.	Commonwealth
October 2016	1	Rewrite to streamline the information and guidance provided and clarify the application and reporting process.	Commonwealth
May 2012	Interim	Updated to reflect changes to OPGGSA—transfer to NOPTA.	Commonwealth

ATTACHMENT A - Suggested information for retention lease applications

Suggested information for inclusion in retention lease applications (under sections 141, 147 and 154), as applicable to the individual circumstances of each application.

Development options

- 1.1. A detailed assessment, discussion and comparison of any potential development option(s) including schematics, timeframes and advantages for each, as well as a detailed breakdown of development components which provides support for the cost estimates in the project economics.
- 1.2. Where the applicant refers to integration in a larger project as a development option, provide comprehensive supporting information on the project as a whole. This includes information on other fields (whether production licences or retention leases) which are intended to be developed through the same facilities, and the anticipated development path for the project including timeframes for each field.
- 1.3. Applicants should provide evidence of preliminary negotiations, if any, with infrastructure owners and current understanding of likely access cost assumptions for any facilities under consideration.
- 1.4. If a preferred development option has been identified, include information on the basis for selecting that option, along with details on all other options which were considered, referencing previous applications if appropriate.
- 1.5. Applications in relation to gas fields should thoroughly assess the economics of the range of different options for bringing a gas field into production including domestic gas development, liquefied natural gas development and gas to liquids development, where appropriate.

Resources

- 1.6. Applicants should demonstrate existing knowledge of the field, including mapping and in-place and ultimate recoverable resource estimates at proved, probable and possible (1C/P90, 2C/P50 and 3C/P10) levels, and any critical uncertainties relating to these estimates. Undrilled prospects should be separately identified.
- 1.7. ESRI Shapefile, Geodatabase file or a spreadsheet with the coordinate listing (latitude, longitude and datum) of pool/field should be provided.
- 1.8. The anticipated production profile, with a breakdown into gas, condensate, and oil phases for each level of certainty, should be provided and presented graphically and in a tabular form. Tables should be submitted in digital format (e.g. comma-separated values).
- 1.9. If these estimates differ from resource estimates previously provided to NOPTA, an explanation should be included for the difference.

Commerciality

- 1.10. The application should provide a clear, detailed discussion of the barriers that are currently presenting an impediment to the recovery of petroleum from the block(s), and what is required in order to overcome those identified barriers to commerciality.
- 1.11. An application should identify the critical factors which would make the relevant discovery commercially viable and address their likelihood of occurrence. Any factors which are critical to the assessment of commercial viability should be discussed in detail. The details should include:
 - 1.11.1. particulars of expected changes to the details provided above which are likely to make development of the discovery commercially viable within 15 years;
 - 1.11.2. such other matters or information the applicant wishes to be taken into account in the application, including research and development of relevant technology; and
 - 1.11.3. evidence that such changes would be sufficient to make the project viable.
- 1.12. Applicants should use 2C/P50 recoverable hydrocarbon volumetric estimates when undertaking the commercial analyses.
- 1.13. Where for reasons of commercial propriety it is not possible for a consortium (e.g. a Joint Venture) to provide commonly agreed estimates of, for example, project revenues and rate or return, the applicant may provide its estimates, or separate data may be provided by individual members of a joint venture, on an in confidence basis.
- 1.14. An analysis of commercial viability should include the assumptions, methodology and conclusions reached by the applicant. This analysis should be consistent across concepts, provide sufficient information to demonstrate that the assumptions and methodology are realistic and lead to a likely outcome, or if appropriate, a range of outcomes.
- 1.15. The impact of alternative development concepts should also be identified and assessed. Factors and assumptions which particularly impact on commercial viability (sensitivities) should be clearly identified and discussed. For example, a large possible range of development costs due to technical challenges, or dependence on access to third party infrastructure.
- 1.16. NOPTA will analyse the extent to which there are reasonable grounds for adopting alternative assumptions and methodologies. Applicants should provide more detailed information to support those parts of the application that are critical to convincing the Joint Authority that the criteria in s142, s148 or s154 can be met.
- 1.17. Applications should also identify the conditions required to commercialise a field and address their likelihood of occurrence and indicative timeframes (e.g. technical appraisals, market conditions or supporting developments).
- 1.18. Where the commercial viability is dependent upon securing customers for gas off-take, applicants should provide evidence of efforts made to obtain contracts for the sale of non-liquids, including any information on approaches by third parties to purchase gas, engagements with potential buyers and reasons for not proceeding.

Project Economics

- 1.19. Cash flows for each viable development option should be provided based on 2C/P50 (proved and probable) resource estimates and current P50 estimates of capital expenditure.
- 1.20. Where an applicant relies on scenarios based on other levels of probability (e.g. 1C/P90 & 3C/P10) cash flows for relevant development options should also be provided.

1.21. The following data, where applicable, should be provided for each year of the project in real Australian dollars:

Year	20XX	20XX	20XX	20XX	20XX	20XX
Annual production <i>for each product</i>						
Price assumption <i>for each product</i>						
Annual revenue <i>from each product</i>						
Exploration & appraisal CAPEX						
Upstream CAPEX						
Downstream CAPEX						
Upstream OPEX						
Downstream OPEX						
Exploration & appraisal OPEX						
Tariff paid						
Tariff received						
Abandonment less salvage						
Depreciation						
Royalty / excise for NWS projects						
PRRT						
Net Cashflow Pre Tax						
Company tax						
Net Cashflow Post Tax						
NPV & IRR						

1.22. Information on the following assumptions should also be included:

- 1.22.1. Annual capital costs for upstream and downstream (e.g. appraisal and production drilling, facilities costs etc.), including cost estimate basis;
- 1.22.2. Annual operating costs for upstream and downstream, including cost estimate basis;
- 1.22.3. Annual tariffs paid or received (upstream and downstream), including cost estimate basis;
- 1.22.4. Annual production volumes, product prices and annual revenues from sale of product(s) for each product type, including modelling assumptions about decline curves;
- 1.22.5. Product(s) pricing basis used and the basis for these assumptions;
- 1.22.6. Depreciation method, lifetimes, and assumptions and formulae for calculation;
- 1.22.7. Inflation rates, exchange rates and company tax provisions used in analysis;
- 1.22.8. PRRT;
- 1.22.9. Where applicable, royalty;
- 1.22.10. Bond rate and GDP uplift factor assumptions for PRRT;
- 1.22.11. PRRT credits expected to be applied to this project;
- 1.22.12. Discount rate (this should reflect the weighted average cost of capital needed to fund the investment);
- 1.22.13. Reference date; and
- 1.22.14. Product conversion rates (e.g. Msm³ / MJ).

- 1.23. A table showing the breakdown of capital expenditure, upstream and downstream, across key infrastructure for all development options considered including basis for estimates. The breakdown should include, as applicable:
- 1.23.1. Pre-FEED and/or Pre-FID costs;
 - 1.23.2. Future exploration within the lease area;
 - 1.23.3. Future appraisal within the lease area;
 - 1.23.4. Development well costs (rig types, well profile types and multilateral well sites);
 - 1.23.5. Subsea facilities (manifolding, equipment and flow lines);
 - 1.23.6. Production facilities (Wellhead Platforms, Central Processing Facility, FLNG facility);
 - 1.23.7. Terminals (inland and coastal terminals including storage and export systems);
 - 1.23.8. Pipelines (infield flowlines and export pipelines);
 - 1.23.9. Relocation and Decommissioning;
 - 1.23.10. Owners Costs; and
 - 1.23.11. Contingency.

Proposed work program

- 1.24. Work programs are unique to each retention lease.

As referenced in assessment, above, applicants are expected to identify the phasing of activities. In general, a year-by-year breakdown for the five year retention lease term is not required. However, the work program should be consistent (with regards to timing, the activities proposed and the level of effort) with what a titleholder could be expected to reasonably carry out in order to commercialise the project in a timely manner.

Annual reporting of activities carried out by lessees is required through the annual title assessment reports.

In the case of a lease renewal, lessees should describe how the work program to date has made progress towards removing identified commercial barriers.

- 1.25. Where a resource is located across two or more adjacent titles held by the applicant, the applicant must provide a standalone work program for each lease area with work program activities and indicative expenditure specific to each lease.
- 1.26. Proposed work programs may include, for example:
- 1.26.1. project feasibility studies to bring the project closer to FID;
 - 1.26.2. reviews of exploration data or proposals to undertake further appraisal or exploration activities to improve understanding of the hydrocarbon resources; and
 - 1.26.3. reviews of technology to assess potential reductions in capital costs.
 - 1.26.4. Refer to Section 3 of these guidelines for further detail on work program requirements.

Renewal only – compliance

- 1.27. Titleholders applying to renew their retention lease(s) should include an overview of compliance with the title conditions, chapters 2, 4, 6, Part 7.1 of the OPGGSA and the associated regulations. If applicable, provide details of non-compliance (s154).