

# Onshore Petroleum Environmental Security Calculation Guideline

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3.1	July 2024	Petroleum Operations	Final for use with updated calculator (updated to detail the approved method for calculating environmental securities for the onshore petroleum industry)

Acronyms	Full form
EMP	Environment Management Plan
NT	Northern Territory
PER 2016	Petroleum (Environment) Regulations 2016

# Contents

- 1. Introduction.....1**
- 2. Purpose.....1**
- 3. Governing legislation and policy .....1**
- 4. Calculating the environmental security.....2**
  - 4.1. Eligible activities.....2
  - 4.2. Publishing the method .....2
  - 4.3. Approved calculation method .....2
    - 4.3.1. Onshore Petroleum Environmental Security Calculator..... 2
    - 4.3.2. Approved forms ..... 3
    - 4.3.3. Mandatory criteria for calculating environmental security..... 3
    - 4.3.4. Discretionary criteria for rehabilitation, remediation liability and discounting..... 4
    - 4.3.5. Environmental security exclusions..... 5
- 5. Payment of environmental securities .....5**
- 6. Commonly Asked Questions .....5**

# 1. Introduction

The *Petroleum Act 1984* (the **Act**) prescribes requirements for environmental securities to be in place for conduct of regulated petroleum activities in the Northern Territory. The Minister for Environment, Climate Change and Water Security (Environment Minister) may establish and approve a method for calculating an environmental security and prescribe forms in relation to an environmental security.

An environmental security is one component of financial assurance that provides the Northern Territory Government with a source of funds for costs and expenses relating to preventing or minimising environmental harm, or rehabilitating or restoring the environment, or securing compliance with an Environment Management Plan (**EMP**), in the event an interest holder is unable to do so. Use of an environmental security also ensures the entity that creates the impact also pays for the restoration of that impacted environment.

The Environment Minister, as the administering authority of the environmental provisions of the Act, is responsible for deciding the environmental security for activities associated with an approved EMP. The Minister will determine the form and amount of environmental security that is provided to the Northern Territory Government by the holder of an EMP approval.

This guideline outlines the relevant environmental security legislative provisions in the Act, including:

- the calculation methodology approved by the Minister;
- requirements related to submissions of securities;
- processes related to information requests;
- the determination-making criteria relating to an application for an environmental security ;
- publication requirements under the Act; and
- required forms.

# 2. Purpose

The purpose of this guideline is to provide information to:

- new operators submitting an environmental security for Ministerial determination for the first time;
- existing interest holders who are re-submitting an environmental security for Ministerial determination;
- existing interest holders who have provided security for an approved EMP under the Act and Petroleum (Environment) Regulations 2016 (**PER 2016**) prior to the commencement of the new financial assurance framework provisions; and
- members of the public interested in learning more about the regulatory framework for environmental securities.

All references to environmental securities in this guideline refer to the provisions of the Act only, unless otherwise stated.

# 3. Governing legislation and policy

Part VC Division 2 of the Act provides the general requirements related to environmental securities.

Under section 117AQ of the *Petroleum Act 1984* (the Act) the Minister for Environment, Climate Change and Water Security (**Environment Minister**) is required to determine the approach or methodology to be used to determine the actual amount or value to be included in or provided by a particular security. The Environment Minister is also responsible for determining (approving) the environmental security.

Under section 117AQ(3) of the Act, the Environment Minister has approved the following approach to determining environmental securities. The approach comprises four components:

1. The *Onshore Petroleum Environmental Security Calculation Guideline*, approved under section 117C(1) of the Act.
2. The *Onshore Petroleum Environmental Security Calculator* approved under section 117J(1) of the Act.
3. The *Approved Form: Onshore Petroleum Fees and Securities* approved under section 117J(1) of the Act.
4. The *Annual Return: Onshore Petroleum Environmental Securities* approved under section 117J(1) of the Act.

Regulation 6(3) of the PER 2016 requires interest holders who submit an EMP for a new or revised petroleum activity to the Environment Minister for a decision to also submit an accompanying environmental security calculation for determination.

Under s117AR(1) of the Act the Environment Minister determines the appropriate security when making a decision to approve an EMP. Under section 117AR(2), the interest holder must provide the determined security (either a contribution paid to the scheme fund or surety given under the Act and in accordance with Treasurer's Directions) **before** commencing any activities under their approved EMP.

There are also circumstances throughout the life of the EMP when the interest holder must review an environmental security under s117AS of the Act if the approved EMP is revised or if required by the Environment Minister.

## 4. Calculating the environmental security

### 4.1. Eligible activities

Regulation 5 of the PER defines regulated activities. EMP approval holders must calculate an environmental security for all regulated activities included in the EMP.

### 4.2. Publishing the method

Sections 117AQ(3) and 117AQ(5)(a) of the Act require that an approved method for determination of environmental securities by the Environment Minister must be published on the Agency's website, the DEPWS [Onshore Gas](#) website.

### 4.3. Approved calculation method

The following sections describe the method for calculating an environmental security approved by the Environment Minister under section 117AQ(3) of the Act. The environmental security must be calculated in compliance with this method.

#### 4.3.1. Onshore Petroleum Environmental Security Calculator

The Onshore Petroleum Environmental Security Calculator forms the main component for calculating the security.

All petroleum exploration permit or production licence holders who have submitted an EMP for approval must use the most recent version of the Agency's Onshore Petroleum Environmental Security Calculator to calculate the required environmental security, unless the method or rate to estimate an environmental security is prescribed in an EMP condition in accordance with section 117AQ(7) of the Act.

### Location of the Onshore Petroleum Environmental Security Calculator

The Onshore Petroleum Environmental Security Calculator can be downloaded from the DEPWS [Onshore Gas](#) website.

### Structure and guidance for the Onshore Petroleum Environmental Security Calculator

The Onshore Petroleum Environmental Security Calculator provides a set of standardised unit rates for disturbance activities. The interest holder is required to fill out the expected disturbance activity for each financial year, which informs the annual security value. Further guidance for interest holders is embedded in the file.

### Development of the Onshore Petroleum Environmental Security Calculator

The categorisation and standardisation of unit rates in the Onshore Petroleum Environmental Security Calculator were informed by an independent review undertaken by Deloitte Touche Tohmatsu Limited (Deloitte) in early 2024 that determined the methodology, assumptions and unit rates that reflected the NT market context. The independent review included:

- comparison with environmental security calculators in comparable jurisdictions (Queensland and South Australia);
- consideration of industry feedback (up to March 2024); and
- Quantity Surveyor review.

The unit rates in the Onshore Petroleum Environmental Security Calculator will be independently reviewed from time to time to update for NT market conditions.

#### 4.3.2. Approved forms

When submitting an EMP for a decision, interest holders must also submit the completed *Onshore Petroleum Environmental Security Calculator* and the *Approved Form: Onshore Petroleum Fees and Securities*, in which the total security value for all regulated activities under the EMP must be included.

On 1 June each year after an EMP is approved, interest holders must submit a completed *Annual Return: Onshore Petroleum Environmental Security* that accounts for the regulated activities scheduled to occur in the forthcoming year, and the activities that had been scheduled to occur in the previous year which did not occur (but for which an environmental security has already been paid). The Environment Minister will make a determination on each year's annual security.

All approved forms can be found on the DEPWS [Onshore Gas](#) website.

#### 4.3.3. Mandatory criteria for calculating environmental security

The total rehabilitation and remediation liability reflects the total potential costs for rehabilitating or remediating disturbed land and preventing, or minimising environmental harm, or rehabilitating or restoring the environment in relation to the activity, to achieve compliance with the EMP, the Act and the PER 2016. The total rehabilitation liability must:

- include the entire period an approved EMP will remain in force;

- be calculated based on all regulated activities described in an EMP;
- be split based on the proposed annual project schedule;
- be calculated for the total cost of rehabilitating the land and preventing, or minimising environmental harm, or rehabilitating or restoring the environment in relation to the activity;
- include the following activities and costs (contained in the Agency's Environmental Security Calculator):
  - (a) constituent tasks or activities required for rehabilitation or remediation;
  - (b) estimated preliminary investigation costs and intrusive investigation costs for contamination assessment that are proportionate to the risk and whether the regulated activities will produce one or more hazardous contaminants in a concentration with the potential to cause serious or material environmental harm;
  - (c) an amount of 10% of total costs for project management;
  - (d) an amount of 20% maintenance and monitoring costs, calculated on rehabilitation cost only (i.e., not calculated on the full security amount)).

While the interest holder is required to calculate the total rehabilitation and remediation liability, only the annual security value needs to be paid, see section 5 'Payment of environmental securities' and section 6 'Commonly asked questions' for more detail.

#### 4.3.4. Discretionary criteria for rehabilitation, remediation liability and shared liability

Sections 117AQ(4) to 117AQ(7) of the Act allow for the Minister to vary, substitute or adopt different methods for calculating environmental securities for different petroleum interests. For example, when the Minister believes there may be a risk that standard criteria calculated (as described in Section 4.3.3, above) may not cover the entire security required to rehabilitate or remediate in the event the NT Government must undertake the works. The below criteria allow for additional discretionary criteria to be considered in an estimation of an environmental security, as determined by the Minister:

- **a risk contingency amount** nominally of 5% or below for regulated activities that are, in the view of the Environment Minister or the Onshore Gas Committee of the NT EPA, subject to cumulative impacts and/or are in the vicinity of very sensitive receptors including cultural heritage sites, which may be adjusted in accordance with a risk-based approach;<sup>1</sup>
- **a residual risk amount** to manage residual risk of environmental harm, including monitoring, after remediation and rehabilitation has been undertaken, which may extend beyond the period for which the approved EMP is in force, to cover residual remediation or rehabilitation, provide for monitoring or address other relevant circumstances; and
- **shared liability** as an approach under section 117AQ(6)(b) to reflect the circumstances of the Northern Territory petroleum industry. The Environmental Security for onshore petroleum during the exploration phase will use a shared liability approach, where the environmental security liability is shared between industry and Government:

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<sup>1</sup> Sensitive receptors may include (but are not limited to) habitat for listed species, riparian zones, groundwater dependent ecosystems, cultural sites and groundwater bores for stock or domestic use. If you are unsure whether this is applicable to your site seek advice from the Agency.

- at a split ratio of 20 (Industry) : 80 (NT Government) for a five year period, beginning 1 July 2024; and
- beyond the five year period, the interest holder will pay 100 per cent of the environmental security.

The project contingency, risk contingency and shared liability are applied after the interest holder submits the completed Onshore Petroleum Environmental Security Calculator.

#### 4.3.5. Environmental security exclusions

The total rehabilitation liability does not:

- need to be calculated for disturbance authorised under an EMP, if an environmental security has already been given under the same or another EMP and where there is co-location of infrastructure resulting in no change to the rehabilitation activities or disturbance; or
- include the costs of responding to an incident (e.g. a spill or accidental release to water that has downstream impacts); or
- include any security associated with petroleum infrastructure regulated by the Minister for Mining and Industry.

The total rehabilitation liability must not assume that the liability can be reduced or offset by deducting the value of on-site infrastructure or other assets. This does not satisfy the NT Government's requirements for an acceptable form of environmental surety (which must be unconditional; immediately payable on demand and payable without reference to another person and available until all obligations have been performed).

## 5. Payment of environmental securities

Under section 117AR of the Act the interest holder must provide the determined security (either a contribution paid to the scheme fund or surety given under the Act and in accordance with Treasurer's Directions).

Whilst the determination for 100% of the security must be made by the Environment Minister at the time of the EMP approval, the environmental security may be paid annually based on:

- the planned regulated activities from the date of approval to 30 June in the first year; and
- the planned regulated activities for the financial year in each subsequent year.

Upon approval of the environmental security an invoice will be issued by the Department of Infrastructure, Tourism and Trade for payment of the environmental security for the first period to 30 June, and based on the calculations in the Onshore Petroleum Environmental Security Calculator submitted with the EMP.

Payment of the environmental security is to be made by 31 July of each year and prior to commencement of regulated activities not already covered by an environmental security.

## 6. Commonly Asked Questions

### Does the Onshore Petroleum Environmental Security Calculator apply to all interest holders?

Yes, the interest holder must follow the standardised unit costs defined in the Onshore Petroleum Environmental Security Calculator. In other words, the interest holder may not request new unit rates or new methodologies.



As noted previously, the updated unit costs provided in the Onshore Petroleum Environmental Security Calculator have been developed through an independent review by Deloitte and feedback from Industry. The Onshore Petroleum Environmental Security Calculator will undergo review from time to time to ensure the unit costs reflect market conditions.

### **What informed the categorisation of different disturbance activities in the Onshore Petroleum Environmental Security Calculator?**

The Onshore Petroleum Environmental Security Calculator was informed by an independent review by Deloitte and Industry feedback. The categorisation of different disturbance activities was determined by considering two factors:

- relevance of the categorisation in NT context; and
- the significance of the categorisation influencing the rate.

For example, the 'access track' item has five categories that considered new or existing tracks, and environment they are present in, such as, native or arid vegetation, earth or rock substrate. These categories have been deemed relevant to NT context and can be selected by the interest holders for relevant titles (e.g., if a title has access tracks present across a range of conditions).

### **Do interest holders need to submit supplementary documents with the Onshore Petroleum Environmental Security Calculator?**

Interest holders may need to submit supplementary documents. This is outlined in more detail within the Onshore Petroleum Environmental Security Calculator (Note 2 and Note 5 of Title\_01 tab). For example, the interest holder may need to submit the following documents:

- evidence that the disposal facility can receive wastewater can be a link to the facility's licence or submitted separately to the Department;
- evidence for infrastructure retention (e.g., letter from landowner confirming the specific infrastructure will be retained); and
- evidence for camp removal (e.g., contract with the camp supplier confirming that camp removal is included in the contract).

### **Does the total security value have to be paid upfront?**

No, the interest holder will only need to pay the annual security value required for upcoming financial year.

### **Does the total security value include GST?**

Yes, the security includes GST.

### **What if the environmental security paid in the previous year is higher than the actual securities required?**

If the interest holder has paid more security than required (either due to the continuous rehabilitation reducing the disturbed area, or less disturbance being generated than was anticipated) then the amount will be recalculated at the next annual review. Any excess security can be rolled forward to contribute the security amount for the coming year or returned to the interest holder.

For example: An interest holder plans to undertake activities over a two-year period. In the first year, the environmental security is estimated to be \$3M. In the second year, it is estimated to be \$5M. The total security is \$8M for the entire activity over the two years.

- Prior to commencing the activity, the interest holder will pay a security of \$3M to cover the first year of activity.

- Just before the first year of the project is completed, the interest holder will undertake another security calculation and advise what the activity was for the first year.
- If, for example, the interest holder does not undertake all the activities planned and the activity for the first year required a security of only \$2M, the interest holder can request the additional \$1M it has paid is returned, or they can request it is rolled forward to year 2.
- If the planned activities for year 2 remain at \$5M, and the interest holder chooses to roll forward the \$1M from year 1, the interest holder will only be required to pay \$4M for year 2.

### How are items that are already rehabilitated deducted from the security?

The calculator allows the interest holder to estimate the disturbance activity expected over five years. If the interest holder expects to reduce the disturbance activity within a year or between years, then the interest holder should reflect this in the calculator. For example:

- The interest holder expects to clear 15 ha of land for seismic lines at the start of the first year. However, by the end of the first year, the interest holder expects to rehabilitate 5 ha of the 15 ha of land, then interest holder should enter 10 ha of land for seismic lines for the first year.
- The interest holder expects to clear 10 ha of land for seismic lines by the end of the first year. By the end of the second year, the interest holder expects to rehabilitate 2 ha of the 10 ha of land, then the interest holder should enter 8 ha of land for seismic lines for the second year.

### How are items with salvage value deducted from the security?

The value of salvaged plant and equipment is not deducted from the security. The Department does not accept deduction of salvage value due to risks and uncertainty associated with the Department's ability to inherit and on-sell these assets and commercial factors (e.g., depreciation and saleability) which could affect the value of the item. For example, the sale value of camps cannot be used to offset the removal cost of camps, given the camps would depreciate over time and their saleability cannot be guaranteed.

### How are items the landowner want to retain deducted from the security?

The value of retained items are deducted from the security. The interest holder should:

- In the calculator, fill in the infrastructure retained sub-table if there is any infrastructure proposed to be retained and handed over to the landholder at the completion of the regulated activity. This sub-table does not inform the annual security value. Similarly, the interest holder should fill in the infrastructure removal sub-table, **excluding** the values in the infrastructure retained sub-table.
- As noted previously, provide the evidence for infrastructure retention (e.g., letter from landowner confirming the specific infrastructure will be retained).

### How is the onsite management of waste disposal considered in the calculator?

The Department does not accept onsite waste disposal management – except for drilling muds – because of the associated contamination risks. Given the potential for waste to include naturally occurring radioactive materials, metals, hydrocarbons, salts and other materials, all waste management should be conducted offsite at a suitable disposal facility.

### When is the security repaid?

Once the Minister is satisfied that a) environmental obligations to which the security relates are satisfied and that the interest holder satisfied all relevant regulatory requirements or b) it is appropriate in the circumstances (see section 117AT(2) – release and extension). A security may be extended beyond the EMP period, to cover residual remediation or rehabilitation, provide for monitoring, or address other relevant circumstances.

**Why does the Onshore Petroleum Environmental Security Calculator not include units for well decommissioning, petroleum surface infrastructure and appraisal production infrastructure costs?**

The Onshore Petroleum Environmental Security addresses specific costs, liabilities and risks associated with environmental impacts and risk of environmental harm resulting from activities to which an approved environment management plan relates, including costs for remediation and rehabilitation. Securities related to infrastructure decommissioning will be accounted for by the Petroleum Infrastructure Decommissioning Security governed under the Minister for Mining and Industry.