

# Environmental Approval

PURSUANT TO SECTION 69 OF THE ENVIRONMENT PROTECTION ACT 2019

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Approval number	EP2025/041
Approval holder	Chief Executive Officer of the Northern Territory Department of Mining and Energy
Australian business number (ABN)	84 085 734 992
Registered business address	38 Cavenagh St Darwin City NT 0800
Action	Darwin Energy Hub

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## Action overview

The Department of Mining and Energy is proposing to construct and operate solar generators in the Weddell region of the Northern Territory, supplying 180-210 megawatts (MW) of solar generation and battery storage directly into the Darwin-Katherine electricity system. The action includes:

- a generation precinct (located approximately 16 km south of Palmerston) comprising:
  - 3 to 6 solar farms arranged in 30-35 MW lots;
  - a substation; and
  - battery energy storage systems.
- overhead transmission lines (**OHTL**) connecting the generation precinct to the existing Channel Island-Hudson Creek overhead transmission line near the Weddell Power Station on the Middle Arm Peninsula.
- decommissioning and rehabilitation.

The action is projected to operate for 30 years.

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## Advisory notes

- i. All statutory authorisations as required by law must be obtained and maintained as required for the action. No condition of this environmental approval removes any obligation to obtain, renew or comply with such statutory authorisations.
  - ii. Requirements to meet the conditions of this approval are to be conducted by appropriately trained, experienced and qualified personnel.
  - iii. Notification of environmental incidents must be made to the **CEO** in writing and within 24 hours of becoming aware of the incident, in accordance with Part 9 Division 8 of the **Environment Protection Act 2019 (EP Act)** and Part 10 of the Environment Protection Regulations 2020. Notification to [pollution@nt.gov.au](mailto:pollution@nt.gov.au) is considered notification to the CEO.
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## Recommended environmental approval conditions

### 1 Limitations and extent

- 1-1 All activities must be carried out within the **approved extent** (Figure 1 and Table 1).
- 1-2 Activities must not exceed the limitations in **Table 1**.

**Table 1** Limitations and extents

Action element	Map	Limitation or maximum extent
Generation precinct	Figure 1	<ul style="list-style-type: none"> <li>No more than 450 ha of vegetation to be cleared.</li> <li>All clearing must be within the <b>approved extent</b>.</li> </ul>
Overhead transmission line (OHTL)	Figure 1	<ul style="list-style-type: none"> <li>No more than 50 ha of vegetation to be cleared.</li> <li>All clearing must be within the <b>approved extent</b>.</li> </ul>

## Terrestrial environment quality

### 2 Environmental objectives

- 2-1 The approval holder must ensure the action achieves the following environmental objectives:
- (1) Protect the quality of land and soils such that the environmental values of the terrestrial environment are preserved.
- 2-2 To support achievement of the environmental objectives required by condition 2-1 the approval holder must comply with conditions 3, 4, and 5.

### 3 Acid sulfate soils management plan

- 3-1 The approval holder must conduct acid sulfate soil (**ASS**) screening tests in land units 4a, 5a and 5b<sup>21</sup> prior to any disturbance of those land units.
- 3-2 If screening tests required by condition 3-1 identify **ASS** or potential acid sulfate soils (**PASS**), the approval holder must develop an acid sulfate soils management plan (**ASSMP**).
- 3-3 If an **ASSMP** is required by condition 3-2, the approval holder must implement and comply with the **ASSMP** during all **construction activities** in those land units.
- 3-4 If an **ASSMP** is required by condition 3-2, the **ASSMP** must:
- (1) incorporate procedures for the identification, excavation and treatment of **ASS**;

<sup>1</sup> Fogarty, P. J., Wood, B. G., and Lynch, B. (1984). The Land Resources of the Elizabeth, Darwin and Blackmore Rivers. Land Conservation Unit, Conservation Commission of the Northern Territory Winnellie, NT.

- (2) be prepared by a **qualified person** in accordance with national guidelines for the management of **ASS** and **PASS**<sup>2,3</sup>; and
  - (3) be submitted to the **Minister** 90 business days prior to **substantial implementation**.
- 3-5 If an **ASSMP** is required by condition 3-2, the approval holder must submit a report on compliance with the **ASSMP** to the **Minister** by 31 May each year during all **construction activities**.
- 4 **Erosion and sediment control**
- 4-1 The approval holder must develop an Erosion and Sediment Control Plan (**ESCP**) prior to the commencement of any ground disturbance, to minimise erosion and the release of sediment to the receiving environment.
- 4-2 The approval holder must implement and comply with the **ESCP** required by condition 4-1 during all **construction activities**.
- 4-3 The **ESCP** required by condition 4-1 must be prepared by a certified professional in erosion and sediment control (**CPESC**), or a registered soil practitioner – erosion and sediment control accreditation (**RSP-ESC**) in accordance with the International Erosion Control Association Best Practice Erosion and Sediment Control Guideline<sup>4</sup>.
- 4-4 The **ESCP** required by condition 4-1 must be submitted to the **Minister** 90 business days prior to **substantial implementation**.
- 4-5 Should the **ESCP** require amendment, the revised **ESCP** must be:
- (1) prepared by a **CPESC** or **RSP-ESC**; and
  - (2) submitted to the **Minister** within 30 days.
- 4-6 The approval holder must submit a report on compliance with the **ESCP** required by condition 4-1 to the Minister by 31 May each year during all **construction activities**. The review must:
- (1) be undertaken by a **CPESC** or **RSP-ESC**;
  - (2) include recommended actions to ensure actual and potential environmental impacts are effectively managed;
  - (3) provide details of the actions to be taken and timelines for their completion; and
  - (4) identify any amendments made to the **ESCP**.

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<sup>2</sup> Water Quality Australia. (2018). National Acid Sulfate Soils Guidance: National Acid Sulfate Soils Sampling and Identification Methods Manual.

<sup>3</sup> Environment Protection and Heritage Council and the Natural Resource Management Ministerial Council. (2018). National Guidance for the Management of Acid Sulfate Soils in Inland Aquatic Ecosystems.

<sup>4</sup> IECA Australasia 2008. Best practice erosion and sediment control. International erosion control association (Australasia), Picton NSW.

## 5 Decommissioning and rehabilitation

- 5-1 The approval holder must develop, implement (at the appropriate time), and comply with a decommissioning and rehabilitation plan.
- 5-2 The decommissioning and rehabilitation plan required by condition 5-1 must:
- (1) define closure objectives and criteria;
  - (2) describe the methodology and staging for dismantling and removal of infrastructure, rehabilitation and remediation;
  - (3) describe the approach for post-decommissioning monitoring and remediation;
  - (4) be submitted to the **Minister** at least three months before **substantial implementation**.

## 6 Waste management

- 6-1 No **e-waste**, in part or whole, is to be disposed to landfill in the NT.
- 6-2 The approval holder must develop, implement and comply with a waste management plan (**WMP**).
- 6-3 The **WMP** required by condition 6-2 must:
- (1) include an inventory of all waste streams that will be generated throughout the life of the action; based on Schedule 1 of the NT Waste Management and Pollution Control (Administration) Regulations 1998 and the NSW Waste Classification Guidelines<sup>5</sup>;
  - (2) identify waste treatment and management for each waste stream, including reuse, recycling and remanufacturing targets; and
  - (3) demonstrate continued application of the waste management hierarchy.
- 6-4 The **WMP** must be submitted to the **Minister** at least six months before **substantial implementation**.
- 6-5 The approval holder must submit a report on compliance with the WMP to the **Minister** with the Environmental Performance Report (**EPR**) required by condition 16-1.
- 6-6 The report on compliance with the **WMP** required by condition 6-5 must:
- (1) demonstrate whether compliance with the **WMP** has been achieved;
  - (2) identify all non-compliances and describe corrective and preventative actions taken to date and actions that will be taken; and
  - (3) include information on actual waste streams and volume generated.

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<sup>5</sup> Available from <https://www.epa.nsw.gov.au/Your-environment/Waste/classifying-waste/waste-classification-guidelines>

## Terrestrial ecosystems

### 7 Environmental objectives

- 7-1 The approval holder must ensure the action achieves the following environmental objectives:
- (1) Protect **listed threatened species** and their habitats.
  - (2) Protect **riparian** and **wetland** vegetation.
- 7-2 To support achievement of the environmental objectives required by condition 7-1 the approval holder must comply with conditions 8, and 9.

### 8 Threatened flora

- 8-1 The approval holder must avoid clearing **very high-density stands of *Cycas armstrongii*** and **high-density stand of *Cycas armstrongii*** in the **OHTL** to the maximum extent reasonably practicable.
- 8-2 The approval holder must:
- (1) survey for *Typhonium praetermissum* in accordance with the Northern Territory Threatened Plant Survey Guidelines, Supplement 1: *Typhonium* field surveys<sup>6</sup> in suitable habitat, prior to **substantial implementation** in the **OHTL**;
  - (2) develop a *T. praetermissum* clearing plan, based on the outcome of surveys required by condition 8-2(1), which demonstrates and documents how clearing of *T. praetermissum* will be avoided to the maximum extent reasonably practicable; and
  - (3) submit a report on compliance with conditions 8-2(1) and 8-2(2) to the **Minister** prior to clearing in any suitable habitat for *T. praetermissum*.

### 9 Riparian and wetland vegetation

- 9-1 The approval holder must engage a suitable qualified person to identify vegetation types and their quality in the **OHTL** prior to **substantial implementation**.
- 9-2 The approval holder must ensure that the recommended buffers in the NT Land Clearing Guidelines<sup>7</sup>, proportional to vegetation type and quality recorded during surveys required by condition 9-1, are applied to all sensitive or significant vegetation including mangrove and riparian vegetation.

## Community and economy

### 10 Environmental objectives

- 10-1 The approval holder must ensure the action achieves the following environmental objectives:
- (1) Protect the visual amenity to road users and residents from solar glint and glare.

<sup>6</sup> Bickerton D., Cuff N., Chong C., Cowie I. and Lewis D. (2020). Northern Territory threatened plant survey guidelines, Supplement 1: *Typhonium* field surveys, 50/2020, Department of Environment, Parks and Water Security, Darwin, Northern Territory.

<sup>7</sup> [NT Planning Scheme Land Clearing Guidelines](#) (2024).

10-2 To support the achievement of the environmental objective required by condition **10-1** the approval holder must comply with condition **11**.

**11 Solar glint and glare**

11-1 The approval holder must ensure that a native vegetation buffer is retained, enhanced or cultivated between Finn Road and any of the solar panels within the **approved extent**.

11-2 The buffer required by condition **11-1** must ensure solar reflection is not geometrically possible and visible to users on Finn Road for more than 10 minutes per day, or more than 10 hours per year<sup>8</sup>.

11-3 The approval holder must ensure that a native vegetation buffer is retained, enhanced or cultivated between parcel 8, Hundred of Ayres and any of the solar panels within the **approved extent**.

11-4 The buffer required by condition **11-3** must ensure solar reflection is not geometrically possible and visible from the residence on parcel 8 Hundred of Ayres for more than 10 minutes per day, or more than 10 hours per year<sup>7</sup>.

Culture and heritage

**12 Environmental objectives**

12-1 The approval holder must ensure the action achieves the following environmental objectives:

- (1) Protect Aboriginal sacred sites.
- (2) Protect Aboriginal cultural values.
- (3) Protect heritage values.

12-2 To support the achievement of the environmental objectives required by condition **12-1** the approval holder must comply with conditions **13**, and **14**.

**13 Cultural heritage management plan**

13-1 The approval holder must ensure that an archaeological survey is conducted by a **suitably qualified archaeologist** prior to any **ground disturbance**.

13-2 The approval holder must engage a suitably qualified archaeologist to document the methods to achieve the requirements of condition **12-1** in a Cultural Heritage Management Plan (**CHMP**), developed in consultation with, and to the satisfaction of the Heritage Branch, **DLPE**.

13-3 The CHMP required by condition **13-2** must:

- (1) include a register documenting known cultural and heritage values;
- (2) identify actions that will be implemented to avoid, minimise and/or manage impacts to known and unexpected sites of potential cultural and heritage value;
- (3) include an unexpected finds protocol; and

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<sup>8</sup> Department of Planning, Housing and Infrastructure (2022). Large Scale Solar Energy Guidelines, New South Wales

- (4) require ongoing consultation and engagement on cultural and heritage values with stakeholders.

**14 Stakeholder engagement plan**

14-1 The approval holder must develop a stakeholder engagement plan (**SEP**) for the management of the action.

14-2 The **SEP** required by condition **14-1** must:

- (1) be developed in accordance with the International Association for Public Participation's Quality Assurance Standard for Community and Stakeholder Engagement<sup>9</sup> or the latest version.
- (2) be developed in accordance with any relevant stakeholder engagement protocols established between NT government and Aboriginal corporations.
- (3) identify all affected stakeholders including but not limited to:
  - (a) traditional owners;
  - (b) Northern Land Council;
  - (c) Aboriginal Areas Protection Authority;
  - (d) Larrakia Development Corporation;
  - (e) other people or organisations determined to be Aboriginal stakeholders; and
  - (f) community members and residents that have the potential to be affected by the proposed action.
- (4) demonstrate that affected stakeholders have been consulted on potential positive and negative impacts of the action, including details of the process used to identify these impacts, and that the affected stakeholders feedback has been understood and considered in implementing the action;
- (5) demonstrate that Aboriginal values and the rights and interests of Aboriginal communities within the proposed extent have been understood and considered;
- (6) be reviewed by an **independent qualified person** to ensure the SEP meets the requirements of condition **14-2(1)**, **14-2(2)**, **14-2(3)**, **14-2(4)**, **14-2(5)**; and
- (7) be submitted to the **Minister** with the comments from the **independent qualified person** required by condition **14-2(6)** and a statement from the approval holder addressing how the reviewer's findings have been addressed, at least one month prior to **substantial implementation**.

14-3 The environmental performance report (**EPR**) required by condition **16** must include a summary of significant issues raised by the community and stakeholders during the consultation process and how they were resolved.

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<sup>9</sup> International Association for Public Participation (IAP2) (2015). Quality Assurance Standard for Community and Stakeholder Engagement.

## General conditions

### 15 Revision of plans

- 15-1 The approval holder may revise any management plan required by this approval and must provide the following to the **Minister** at least one month prior to any material amendment(s) being implemented:
- (1) the revised plan(s);
  - (2) a tabulated summary of the amendment(s) with document references;
  - (3) reasons for the amendment(s); and
  - (4) an assessment of environmental risks and potential environmental impacts associated with the amendment(s).
- 15-2 The approval holder must implement the action to comply with the latest revision of management plans required by this approval.

### 16 Environmental performance reporting

- 16-1 The approval holder must prepare an Environmental Performance Report (**EPR**) that reports on the environmental performance of the action and evaluates compliance with the conditions of this environmental approval.
- 16-2 An Environmental Performance Report (**EPR**) required by condition **16-1** must:
- (1) be submitted to the **Minister** on the first anniversary of **substantial implementation**;
  - (2) be submitted to the **Minister** every five years thereafter following the submission of the report required by condition **16-2(1)**;
  - (3) be endorsed by the approval holder or a person delegated to endorse on the approval holder's behalf;
  - (4) include a statement as to the extent the approval holder has complied with each condition of this approval;
  - (5) provide an interpretation of all monitoring data required by the conditions of this approval;
  - (6) provide an analysis and interpretation of monitoring data to demonstrate whether compliance with the requirements of conditions has been achieved; and
  - (7) identify all non-compliances and describe corrective and preventative actions taken to date and actions that will be taken.
- 16-3 The approval holder must maintain records demonstrating compliance with the conditions of this environmental approval for the life of the action.

### 17 Provision of environmental data

- 17-1 All environmental monitoring data required to be collected or obtained under this environmental approval must be retained by the approval holder for a period of not less than ten years commencing from the date that the data is collected or obtained.

17-2 The approval holder must, as and when directed by the **Minister**, provide any environmental data (including sampling design, sampling methodologies, empirical data and derived information products such as maps) or information relevant to the assessment of the action and implementation of this environmental approval, to the **Minister** in the form and manner and at the intervals specified in the direction.

**18 Change of contact details**

18-1 The approval holder must notify the **Minister** in writing of any change of its name, physical address or postal address for the serving of notices or other correspondence within ten business days of such change.

**19 Commencement of action**

19-1 This approval expires five years after the date on which it is granted, unless there is **substantial implementation** on or before that date.

19-2 The approval holder must provide notification in writing to the **Minister**, at least two months prior to **substantial implementation**.

**20 Breach of condition**

20-1 A breach of condition/s of this approval must be reported to the **Minister** within 24 hours of the approval holder becoming aware of the breach. The report to the **Minister** must be in electronic form by emailing [environmentalregulation@nt.gov.au](mailto:environmentalregulation@nt.gov.au).

## Acronyms

Term	Definition
ASS	Acis sulfate soils
ASSMP	Acid sulfate soils management plan
CHMP	Cultural heritage management plan
CPESC	Certified professional in erosion and sediment control
DLPE	Department of Lands, Planning and Environment
EPR	Environmental performance report
ESCP	Erosion and sediment control plan
IECA	International erosion control association
OHTL	Overhead transmission line
PASS	Potential acid sulfate soils
RSP-ESC	Registered soil practitioner – erosion and sediment control accreditation
SEP	Stakeholder engagement plan
WMP	Waste management plan

## Definitions

Some of the terms used in this approval have the same meaning as the terms defined in the *Environment Protection Act 2019* and *Environment Protection Regulations 2020*.

Term	Definition
acid sulfate soils (ASS)	Soils or sediments containing iron sulfides.
approved extent	The extent identified in red in <b>Figure 1</b> of this approval. Also defined by: <ul style="list-style-type: none"> <li>- Solar farm and <b>OHTL</b> approved extent shapefiles</li> </ul>
Chief Executive Officer	Has the same meaning as in section 4 of the <b>EP Act</b> .
construction activities	Works and activities undertaken to establish the action including land clearing, earthworks, infrastructure installation, and trenching.
e-waste	Solar panels, inverters and energy storage system batteries.
generation precinct	The extent identified in purple <b>Figure 1</b> of this approval.
heritage values	Heritage places and heritage objects as defined under the <i>Heritage Act 2011</i> and includes Aboriginal or Macassan archaeological places and objects.
high-density stand of <i>Cycas armstrongii</i>	Stands supporting >400 mature stems of <i>C. armstrongii</i> per hectare. Mature stems are considered all of those greater or equal to 50 cm in height.
independent qualified person	A qualified person as defined under section 4 of the <b>EP Act</b> ; and who also meets the following requirements: <ul style="list-style-type: none"> <li>a) was not involved in the preparation of the approval holder's <b>referral</b>;</li> <li>b) is independent of the personnel involved in the design and implementation of the action; and</li> <li>c) has obtained written approval from the <b>CEO</b> to satisfy the independent qualified person reporting requirements under this approval.</li> </ul>
landfill	Disposal of waste by burial.
listed threatened species	Species listed as critically endangered, endangered, or vulnerable under the <i>Territory Parks and Wildlife Conservation Act 1976</i> or the <i>Environment Protection and Biodiversity Conservation Act 1999</i> .
Minister	The <b>Minister</b> responsible for administering the <b>EP Act</b> .
overhead transmission line (OHTL)	The extent identified in <b>Figure 1</b> of this approval.

Term	Definition
qualified ecologist	Person who has professional qualifications, training, skills and/or experience related to the potential impact using the relevant protocols, standards, and methods, and who has obtained written approval from the CEO, on the advice of the Executive Director of the NT DLPE Flora and Fauna Division to be the qualified ecologist.
qualified person	A qualified person as defined under section 4 of the EP Act.
referral	The approval holder's referral to the NT EPA under section 48 of the EP Act.
sensitive or significant vegetation	Vegetation communities defined as sensitive or significant by the Northern Territory Planning Scheme Land Clearing Guidelines <sup>10</sup> .
substantial implementation	The commencement of any ground disturbing activity undertaken to carry out the action.
very high-density stand of <i>Cycas armstrongii</i>	Stands supporting >700 mature stems of <i>C. armstrongii</i> per hectare. Mature stems are considered all of those greater or equal to 50 cm in height.

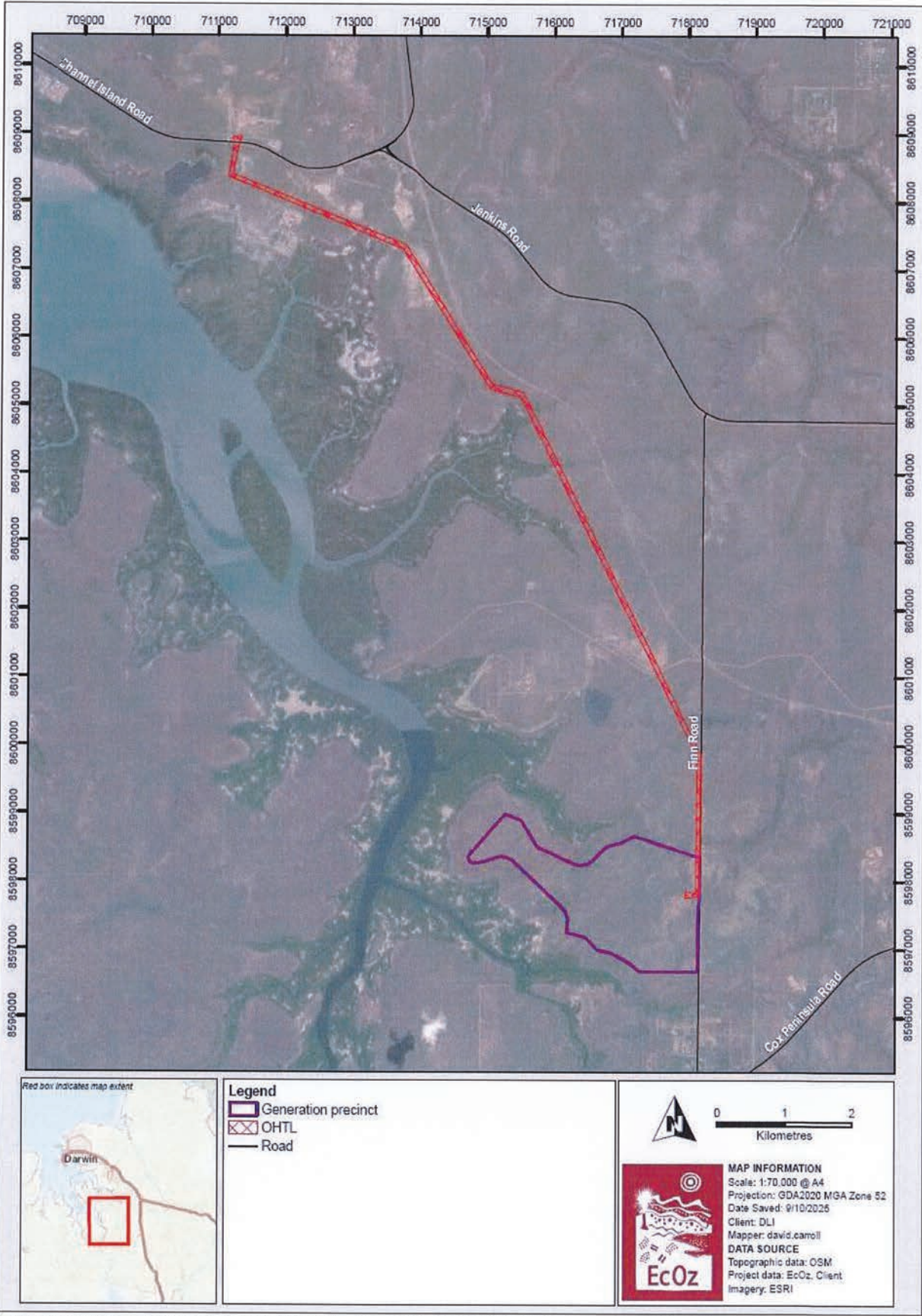
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<sup>10</sup> [Northern Territory planning scheme land clearing guidelines \(2024\)](#).

## Location and extent of action

Spatial data is held by **DLPE** as follows:

- Solar farm and **OHTL** approved extent



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Layout: Figure 2-1 - Proposal area

Proposal area

Figure 1 Approved extent