Australian Capital Territory

# Planning and Development (Territory Battery - Blocks 1634 and 1635, Belconnen) EIS Assessment Report 2024

#### Notifiable instrument NI2024–201

made under the

Planning and Development Act 2007, s 225A (EIS assessment report)

#### 1 Name of instrument

This instrument is the *Planning and Development (Territory Battery - Blocks 1634 and 1635, Belconnen) EIS Assessment Report 2024.* 

#### 2 Commencement

This instrument commences on the day after its notification day.

#### 3 EIS assessment report

The planning and land authority has prepared the EIS assessment report for the Territory Battery as set out in the schedule.

- *Note 1* A copy of the assessment report can be obtained <u>http://www.planning.act.gov.au</u>.
- *Note 2* Under the Act, s 225A (5) (repealed), the EIS assessment report expires 18 months after its notification day.

Craig Weller Delegate of the territory planning authority 22 April 2024



# **Environmental Impact Statement**

Assessment Report

for

# **TERRITORY BATTERY**

**Energy Storage System** 

March 2024

**Planning and Land Authority** 

ronment, Planning and Sustainable Development Directorate

Authorised by the ACT Parliamentary Counsel-also accessible at www.legislation.act.gov.au



**Environmental Impact Statement** 

**Assessment Report** 

for

# **TERRITORY BATTERY**

**Energy Storage System** 

March 2024

**Planning and Land Authority** 

Environment, Planning and Sustainable Development Directorate

Pursuant to Section 222 of the *Planning and Development Act 2007* (**PD Act**), this report evaluates the updated revised environmental impact statement (**EIS**) for the following application:

Ref no: EIS202100027 Document no: 1-2021/46368 Project: Territory Battery Date scoping document issued: 17 September 2021 Date draft EIS lodged: 16 August 2022 Date revised EIS lodged: 27 February 2023 Date of updated revised EIS lodged: 21 September 2023 Proponent: Neoen Australia Pty Ltd Applicant: Neoen Australia Pty Ltd Location: Block 1634 and 1635, District of Belconnen Street address: Stockdill Drive, Belconnen, Australian Capital Territory (ACT)

As required by section 225A of PD Act, the planning and land authority (**the Authority**) has prepared this EIS Assessment Report for the Minister for Planning. This report confirms that the Authority is satisfied that sufficient information has been provided on each matter raised in the scoping document for this proposal.

This report has also been prepared for the Commonwealth Department of the Climate Change, Energy, the Environment and Water in accordance with the assessment bilateral agreement between the between ACT and Commonwealth governments (June 2014).

#### Acknowledgement of Country

We acknowledge the Ngunnawal people as traditional custodians of the ACT and recognise any other people or families with connection to the lands of the ACT and region. We acknowledge and respect their continuing culture and the contribution they make to the life of this city and this region.

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Term	Definition
ACT	Australian Capital Territory
Action	Action includes a project, a development, an undertaking, an activity
	or series of activities, and an alteration of any of the above.
ACTF&R	ACT Fire & Rescue
Apia Convention	The Convention on Conservation of Nature in the South Pacific
APZ	Asset Protection Zone
AQCP	Air Quality Control Plan
BAR	Biodiversity Assessment Report
BESS	Battery Energy Storage System
BGW/box gum	White box – Yellow Box – Blakely's Red Gum Grassy Woodland and
woodland	Derived Native Grassland (listed under the Commonwealth EPBC
	Act)
	Yellow Box –Blakely's Red Gum Grassy Woodland (listed under the
	ACT NC Act)
BOP	Bushfire Operations Plan
BOS	Biodiversity Offset Strategy – defines offset requirements and
	suitability
CEMP	Construction Environmental Management Plan
СНА	Cultural Heritage Assessment
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
Clear/cleared/clearing	Cutting down, felling, thinning, logging, burning or removing
	vegetation and doing anything else that kills, or is likely to kill
	vegetation
Commence action	The first instance of any specified activity associated with the action
Construction	The physical process of building and all other associated activities
	including landscaping, refurbishing, site clearance and demolition
Construction	The total area to be impacted by construction activities
footprint	
Construction laydown	Area on construction site where tools, materials, equipment and
area	vehicles are temporarily stored
CSMP	Chemical Storage and Management Plan
DA	Development Application

# **Glossary and definitions**

Term	Definition
DAWE	Department of Agriculture, Water and the Environment (now
	DCCEEW)
DCCEEW	Commonwealth Department of Climate Change, Energy, the
	Environment and Water
Ecological restoration	Actions and process taken to assist the recovery of an ecosystem
EIS	Environmental impact statement: a document prepared to detail the
	expected environmental, social and economic effects of a
	development, and state commitments to avoid, mitigate or
	satisfactorily control and manage any potential adverse impacts of
	the development on the environment. In the ACT, an EIS is required
	for proposals in the impact track as per Section 127 of the Planning
	and Development Act 2007.
EMP	Environmental Management Plan
EP ACT	Environment Protection Act 1997
EPA	Environment Protection Authority
EPBC ACT	Environment Protection and Biodiversity Conservation Act 1999
	(CWIN)
	Emergency Response Plan
ERPG	Emergency Services Agency
ESA	Emergency Services Agency  Erosion and Sediment Control Plan
	Environmental Significance Opinion
	Eiro Danger Index
GSM	Golden Sun Moth (Sunemon plana)
ha	Hectare
Heritage Act	Heritage Act 2004
HF	Hydrogen Eluoride
НРС	Health Protection Service
IPP	Indigenous Participation Plan
km	Kilometre
1	litre
	Lower Molonglo Water Quality Control Centre
LPP	Local Participation Plan
m	Metre
mgbl	Metre below ground level
MNES	Matter of National Environmental Significance (as per the EPBC Act)
MW / MWh	Megawatt / Megawatt hours
, NC Act	Nature Conservation Act 2014
NCA	National Capital Authority
NCP	National Capital Plan
Neoen	Neoen Australia Pty Ltd
NVIA	Noise and Vibration Impact Assessment
NVMP	Noise and Vibration Management Plan
OMP	Offset Management Plan – details how the offset will be managed,
	including details of reporting and monitoring requirements
PD Act	Planning and Development Act 2007 (ACT)
PD Regulation	Planning and Development Regulation 2008 (ACT)

Term	Definition
PSI	Preliminary Site Investigation
PTWL	Pink-tailed Worm-lizard (Aprasia parapulchella)
PTWL habitat	Areas which have been mapped as suitable for PTWL by a suitably
	qualified specialist
Proposal Area	The total extent of area in which the action is to take place
Public Health Act	Public Health Act 1997
RAO	Representative Aboriginal Organisations
RAP	Remediation Action Plan
RNE	Register of the National Estate
Significant impact	Matters of National Environmental Significance: Significant Impact
guidelines	Guidelines 1.1
SPRAT	Species Profile and Threats Database
Suitably qualified	An individual possessing the necessary qualifications and experience
specialist	relevant to a specific activity or work being undertaken
SWMP	Soil and Water Management Plan
TCCS	Transport Canberra and City Services
TEC	Threatened ecological community
The Authority	The planning and land authority
TMP	Traffic Management Plan
TP Act	ACT Tree Protection Act 2005
UDP	Unanticipated Discovery Protocol
Umwelt	Umwelt (Australia) Pty Limited
UTR	Utilities Technical Regulation
UTR Act	Utilities (Technical Regulation) Act 2014
WMP	Waste Management Plan
WSUD	Water Sensitive Urban Design

# **1. Introduction**

This report is to the ACT Minister for Planning on the assessment of the Environmental Impact Statement (EIS) in relation to the Territory Battery Energy Storage System (Territory Battery) project.

The project is a development of a type that meets section 123 of the *Planning and Development Act 2007* (**PD Act**) as it involves a process and activity mentioned in Schedule 4 of the PD Act, and therefore requires an EIS. The development application (**DA**) for this project is required to include a completed EIS under the PD Act.

### **1.1. Project description**

Umwelt Pty Ltd (**Umwelt**) has acted as the applicant on behalf of Neoen Australia Pty Ltd (**Neoen**), the proponent for this project.

The project is the Territory Battery Energy Storage System in the District of Belconnen, ACT. The project will involve two components:

- the construction, operation, maintenance, and decommissioning of a large-scale battery energy storage system (BESS) and comprising of up to 150 battery packs with power of up to 300 megawatts (MW) and capacity of 600 megawatt-hours (MWh), and associated infrastructure, and
- a substation for the BESS and a new 330kV transmission line, which will connect the Territory Battery to the Transgrid Stockdill Substation (located on Block 1635 to the north of the project site) via an overhead or underground transmission line.

Specific components of the project include:

- standalone battery packs and medium voltage transformer/inverter stations,
- warehouse for storage of spare parts during operation and for any on-site maintenance,
- electrical substation,
- three operational buildings (a BESS control room, substation control room and switchgear room),
- demountable office for construction and decommissioning with six car spaces,
- 6 m wide gravel access road from Stockdill Drive,
- all the above set within a compound with a perimeter barrier / 3 m high chain-wire fence,
- a track around the outside of the perimeter barrier / fence for fire-fighting access, for fire protection and management.
- two water tanks for fire-fighting, each with a minimum capacity of 300,000 litres (L), and a network of fire hydrants across the site,
- a small water tank for potable water supply, and
- all of the above surrounded by a stock fence.

The specifics of the configuration and location of battery packs, inverter stations, ancillary infrastructure, the transmission line, and height and type of the fence or barrier is to be determined during detailed design. The project boundary outline is shown at **Figure 1**.



Image Source: Nearmap (May 2022) Data source: ACTMapi (2022); Umwelt (2022); GHD (2020)

#### Figure 1 Proposal Boundary

### 1.2. Project background and location

Neoen is proposing to develop the Territory Battery project in western Belconnen in the ACT. The land is located at the project infrastructure will be on Registered Rural Blocks 1634 and 1635 in the District of Belconnen. Block 1634 was identified as a suitable site for the proposal as it would allow for a direct connection to the Stockdill Substation on Block 1635, without needing the transmission line to cross Stockdill Drive or other properties. These blocks cover a total area of 313.6 hectare (ha), of which 8.9 ha is for development of the proposal footprint. The land is zoned NUZ3 Hills, Ridges and Buffers. The project location is shown in **Figure 2**.

The project is adjacent to Stockdill Drive, approximately 14 kilometres (**km**) northwest of the Canberra city centre. The Lower Molonglo Water Quality Control Centre (**LMWQCC**) is located on the northern side of Stockdill Drive approximately 200 m from the proposal area, and the Transgrid Stockdill Substation is located on Block 1635 north of the BESS site. The Molonglo River is approximately 0.7 km to the west, downslope of the project. The future urban area of Ginninderry, which is currently being developed, is located more than 800 m northeast of the proposal area. The closest existing residential area, in the suburb of Holt, is around 3 km to the north-east.

The proposal area and surrounds have a history of agricultural land use, primarily livestock grazing. The landscape has been subject to extensive land clearing and some environmental degradation. The proposal area sits within the low hills and plains landscape of the ACT, which is generally dominated by woodland and secondary grassland ecological communities. Low and medium quality box-gum woodland and derived native grassland are present throughout the proposal area. No existing contamination has been found in the proposal area.

The proponent submitted a referral to the Commonwealth Department of Agriculture, Water and the Environment (**DAWE**, now the Department of Climate Change, Energy, the Environment and Water (**DCCEEW**)) in February 2021. due to the potential for a significant impact on White box – yellow box – Blakely's red gum grassy woodland and derived native grassland (BGW), which is listed as a threatened ecological community (**TEC**) under the *Environment Protection and Biodiversity Conservation Act 1999* (**EPBC Act**). On 22 March 2022, a delegate of the Minister for Environment determined that the Proposal was a 'controlled action' in accordance with Section 75 of the EPBC Act and would be assessed under the ACT Assessment Bilateral Agreement.



Figure 2 Proposal Location and Site Context

#### 1.2.1. Legal land description and tenancy

The Territory Battery will directly and indirectly affect two blocks. Error! Reference source not found. shows the legal land description for each block affected by the project and the details of tenancy type and tenant.

 Table 1 Legal land description and tenancy

Block	District	Tenancy	Tenant
Directly affected lands			
1634	Belconnen	Leased Territory Land	Private Lessee
1635	Belconnen	Leased Territory Land	Transgrid

The neighbouring lands in the area, unlikely to be affected by the proposal, include Registered Rural Block 1602 to the west, Proposed Rural Block 183 and Approved Rural Block 1429 to the south, Registered Rural Blocks 1382, 1600 and 1582 to the east, and Registered Rural Block 1636 (0.8 ha) which is fully enclosed within Block 1634 but will not be impacted by the proposal. Ginninderry and Holt are located more than 800 m and 3 km, respectively, to the northeast of the proposal area.

#### 1.3. Alternatives to the project

The following two options have been considered as viable transmission line route options (see **Figure 1**) in terms of issues such as potential environmental impacts, constructability considerations, and directives from Transgrid. The third option of not proceeding with the development has also been considered.

- 1) Shortlisted option 1: Connecting to the southern end of the Stockdill Substation.
- 2) Shortlisted option 2: Connecting near the middle of the Stockdill Substation.

#### 3) The 'do nothing' option.

Both shortlisted options have been assessed in full in the EIS, however no overall preferred option has been identified. The option to be constructed would be selected during detailed design. The option of no development is considered to be an undesirable option by the proponent as battery systems for intermittent renewable energy sources are critical to maintain a stable and continuous supply to the National Electricity Market and ACT electricity networks. The proposal would play an important role in ensuring the ACT continues to meet its legislated target of 100% renewables and achieves net zero greenhouse gas emissions by 2045.

# 2. The environmental impact assessment process

Environmental impact assessment processes are used to identify, predict, plan for, and manage the impacts of development proposals before a decision is made about the project going ahead. An environmental impact assessment process is required to be undertaken for projects in the impact track. Three options are available for environmental impact assessment – EIS, EIS exemption and Environmental Significance Opinions (**ESO**), with the suitability of each option dependent on the type and scale of project.

An environmental impact assessment process is not an approval process. It ensures potential impacts and possible mitigation measures have been fully investigated and documented in accordance with the requirements of a scoping document.

The EIS is used as a key assessment tool for any DA lodged for the proposal. The EIS also recommends conditions to be imposed on a DA (if approved) for the proposal.

Under section 127 of the PD Act, a DA for a development proposal in the impact track must include a completed EIS in relation to the proposal (unless the application is exempted under section 211 of the Act).

Section 123 of the PD Act states that the impact track applies to a development if:

- the relevant development table states that the impact track applies;
- the proposal is of a kind mentioned in Schedule 4 of the PD Act;
- the Minister makes a declaration under section 124;
- section 125 or section 132 applies to the proposal; or
- the Commonwealth Minister responsible for the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) advises the Minister in writing that the development is a controlled action under the EPBC Act, section 76.

#### 2.1. Impact track triggers

The Territory Battery is in the impact track as it is a development of a kind mentioned in Schedule 4 of the PD Act, and the development is a controlled action under section 76 of the EPBC Act. The EIS states that this proposal triggers the Schedule 4 items listed in Error! Reference source not found..

Item Number	Description	Project Component
Part 4.2, item 2	A proposal that involves electricity	The proposal involves the
	transmission line construction, including	construction of a 330 kV
	additions or realignment works, outside an	underground or overhead
	existing easement or exceeding 500m in	transmission line connecting
	length, that are intended to carry	the proposed facility to the
	underground or above-ground transmission	Transgrid Stockdill Substation.
	lines with a voltage of 132kV or more.	The two options for the
		transmission line location are
		both less than 500 m in length
		but would be constructed
		outside an existing easement.

Table 2 Impact track triggers per Schedule 4 of the PD Act

Part 4.3, item 1	A proposal that is likely to have a significant adverse environmental impact on 1 or more of the following, unless the conservator of flora and fauna provides an environmental significance opinion indicating that the proposal is not likely to have a significant adverse environmental impact: (a) a critically endangered species; (b) an endangered species; (c) a vulnerable species; (d) a conservation dependent species; (e) a regionally threatened species; (f) a regionally conservation dependent species; (g) a provisionally listed threatened species; (h) a listed migratory species; (i) a threatened ecological community; (j) a protected native species; (k) a Ramsar wetland; (l) any other protected matter.	The proposal would impact 6.19 ha of White box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland, which is listed as a critically endangered ecological community under both the ACT <i>Nature</i> <i>Conservation Act 2014</i> (NC Act) and Commonwealth EPBC Act. This is considered to be a significant impact as it would reduce the extent and increase fragmentation of the threatened ecological community in the surrounding landscape.
Part 4.3, item 2	Proposal involving – (a) the clearing of more than 0.5 ha of native vegetation in a native vegetation area, other than on land that is designated as a future urban area under the Territory Plan, unless the Conservator of Flora and Fauna produces an environmental significance opinion that the clearing is not likely to have a significance adverse environmental impact; or (b) the clearing of more than 5.0 ha of native vegetation in a native vegetation area, on land that is designated as future urban area under the Territory Plan, unless the Conservator of Flora and Fauna produces an environmental significance opinion that the clearing is not likely to have a significant adverse impact.	The Proposal would impact 6.19 ha of low to moderate quality Yellow Box –Blakely's Red Gum Grassy Woodland derived native grassland, which meets the criteria for native vegetation under the NC Act.

# 2.2. Bilateral EIS process

The flowchart below (Figure 3) outlines the bilateral EIS process.



Figure 3 The bilateral EIS process

## 2.3. Scoping Document

To guide the content of an EIS and therefore the investigations and research required, a scoping document is prepared by the Authority within the Environment, Planning and Sustainable Development Directorate (**EPSDD**), in response to an application made for the proposal.

On 6 August 2021, the proponent submitted a request for a scoping document for an EIS pursuant to section 212(1) of the PD Act.

The Authority must consult with entities prescribed in section 51 of the *Planning and Development Regulation 2008* (**PD Regulation**) about the scoping document application. The Authority may also seek advice from the ACT community and other entities. The Authority referred the scoping document application to entities inviting written comments on 9 August 2021. The entities were given 15 working days to provide comment. The consulted entities and dates of responses are shown in Error! Reference source not found..

Table 3 Entity comments on scoping document application

Entity consulted	Entity response
Icon Water	6 September 2021
Jemena	10 August 2021
<b>Conservator of Flora and Fauna</b>	28 August 2021
<b>Emergency Services Commissioner</b>	24 August 2021
<b>Environment Protection Authority</b>	19 August 2021
ACT Heritage Council	31 August 2021
ACT Health	20 August 2021
<b>Transport Canberra and City Services</b>	31 August 2021
<b>Utilities Technical Regulation</b>	31 August 2021
DAWE	1 September 2021

In developing the scoping document, a risk-based approach was used so that the EIS could focus on those matters that potentially result in a significant environmental impact.

On 17 September 2021, the scoping document was issued by the Authority to the proponent pursuant to section 212(2) of the PD Act. The scoping document set out the matters to be addressed in the EIS and contained, at a minimum, the requirements required in section 50 of the PD Act and section 54 of the PD Regulation. A copy of the scoping document is included at **Appendix F01**.

Pursuant to section 214 of the PD Act, the scoping document was issued within 30 working days after the application was made.

The scoping document was notified on the ACT Legislation Register on 5 October 2021.

Under section 215 of the PD Act, the scoping document is effective for 18 months from the day after the date on the scoping document. After receiving the scoping document and pursuant to section 216(2) of the Act, the proponent is required to:

- a) prepare a draft EIS that addresses each matter raised in the final scoping document for the proposal, and
- b) give the draft EIS to the Authority for public notification.

A cross-reference document was included as an Appendix to the EIS to cross reference the contents of the EIS to the contents required in the scoping document (Appendix F02).

#### 2.4. Draft EIS

The purpose of the draft EIS is to identify and describe the potential environmental, social and economic impacts of the proposal, including cumulative, regional, temporal and spatial considerations. The draft EIS is required to fulfil the requirements of the scoping document.

On 16 August 2022, Umwelt, on behalf of the proponent, provided the Authority a draft EIS, under section 216(2) of the PD Act.

#### 2.4.1. Public notification of draft EIS

Pursuant to section 217 of the PD Act, the Authority publicly notified the draft EIS from 5 September 2022 to 17 October 2022, being 30 working days. This exceeds the minimum requirement under section 218 of the PD Act, which states that the public consultation period of the draft EIS is no less than 20 working days.

During the public consultation period, a copy of the draft EIS was available on the Authority's website This public consultation process provided interested stakeholders and the community with the opportunity to make representations on the proposal or in respect to specific environmental issues of concern.

No public representations were received during the consultation period.

#### 2.4.2. Entity referral of EIS

On 6 September 2022 the draft EIS was referred to each of the entities who provided comments on the scoping document. Additional comments were sought on the revised EIS, where the entity had requested further information from the proponent at the draft stage.

The comments on the draft and revised EIS received from entities are summarised in Error! Reference source not found..

#### Table 4 Summary of entity comments on the draft and revised EIS

Referred entity	Entity response	
Icon Water	Analytical Services TeamInformation is not sufficient to determine if the demountable office is serviceable with the sewer network.Trade Waste TeamAny non-domestic sewage must apply to Icon Water's Liquid Trade Waste team for approval. The facility will needto consider management of liquid wastewater and potentially contaminated ground or surface water duringconstruction.Environment TeamEngage with Icon Water regarding bushfire protection, hydrogen fluoride gas, emergency planning, and providedetails/specifications of battery pack brand.Risk and Emergency BranchF 500 extinguishers are recommended for small – light industrial fires and significant quantities of water. Theproject will need to consider arrangements to water needs to ensure that access roads are designed to allowemergency evacuation, and a shelter in place option should be considered if required. Bushfire Operations Plansfor Icon Water and the proposal should be aligned.	17 October 2022
	Revised EIS comment: The site is close to future Ginninderry reservoir site and should be considered in all assessments. No comments regarding sewerage connection as no sewerage facilities are being proposed. Engineering assessment including impact to Molonglo Valley Interceptor Sewer and easement width need to be reviewed and approved by Icon Water. The engineering assessment should take into account all lifecycle activities. Trade Waste, Environment Team, and Risk and Emergency Branch comments are as above. The works will require Building Approval from Icon Water.	28 March 2023
Jemena	Nil response.	N/A
Conservator of Flora and Fauna	<ul> <li><u>Bushfire risk considerations</u></li> <li>Bushfire risk and prevention is adequate given implementation of:</li> <li>Asset Protection Zones (APZs) within the development footprint to be managed by the proponent.</li> <li>On-site water supply and sprinkler system for fire suppression systems to minimise risk of fire spread between battery elements.</li> </ul>	19 October 2022

	Mitigation measures outlined in the bushfire report, including total fire bans, development of a Bushfire     Operations Plan, and operation conditions on total fire ban days	
	Concerns of negative impact from a noise wall including on the following features:	
	Visual impact on the landscape. Visual and graffiti impact may be reduced by painting the wall to bland into	
	• Visual impact on the landscape. Visual and granit impact may be reduced by painting the wall to blend into	
	the surroundings using vandalism resistant paint.	
	Biodiversity impact on the movement of fauna across and through the site.	
	Biodiversity considerations	
	Impacts to Zornia dyctiocarpa should be discussed as it is on the Nature Conservation Protected Native Species List	
	(Nature Conservation Act 2014).	
	Offset considerations	
	Clarification of whether the third party offset manager will manage the site as an agricultural enterprise and if a	
	new land management agreement will be signed, and explanation of long-term funding to maintain the	
	biodiversity values in the offset even after the 'end point' is required. The Offset Strategy should clarify that the	
	ACT Government currently has no expectations for accepting the land into public land nature reserve and should	
	describe alternatives for long-term protection and management of the offset.	
	Revised EIS comment:	28 March 2023
	The following comments are regarding the DA and CEMP stages. The CEMP should reference National Light	
	Pollution Guidelines for Wildlife. Noise barriers will need to be designed in consultation with ACT Parks and	
	Conservation Service. Consideration should be given to avoid removal of the mature hollow-bearing tree for the	
	site access road, noting Pink-tailed Worm-lizard habitat constraints. Comments regarding Zornia dyctiocarpa should	
	be addressed at the DA stage, as impact to the species is a trigger for an EIS.	
	Updated Revised EIS comments:	10 October
	The Conservator reviewed the updated Offset documents provided as part of the Revised EIS and advised that the	2023
	revised EIS has addressed previous comments and the Conservator has no further concerns.	
Emergency	ACT Fire & Rescue (ACTF&R)	17 October
Services	Supplied Bushfire Risk Assessment requires more accurate information regarding topography. Non-combustible	2022
Commissioner	sound barrier needs to be used in conjunction with defendable space between wall and facility. Further	
	consultation is required with ACTF&R to inform water supplies and evidence of appropriate vehicle positioning at	
	water supplies. APZs must consider ecological constraints, maintenance requirements and responsibilities and	
	need to be defined and agreed to in perpetuity. Country Fire Authority Design Guidelines and Model Requirements	
	for Renewable Energy Facilities should be used as guidance for this development.	

	Revised EIS comments: ACTF&R has compared original bushfire assessment to revised documents with no changes observed. All previous comments apply. Water supplies and location in bushfire assessment are not sufficient. Draft design with 2 300,000L tanks was provided in a stakeholder meeting, with in principle support by ACTF&R but will need refinement during the DA for final approval. The design of the facility should be in accordance with the Country Fire Authority Guidelines and Model Requirements for Renewable Energy Facilities, particularly sections 6-11. The noise attenuation wall requires further investigation and consultation, although supported in principle.	5 April 2023
Environment Protection Authority	Appendix F06 (Preliminary Site Investigation (Contamination)) will need to be updated and forwarded to the Environment Protection Authority (EPA) for review and endorsement in accordance with <u>Information sheet 11 – EPA Report Submission Requirements</u> . Presently the report does not meet the requirements of <u>Information Sheet 7</u> – <u>Guidance for Undertaking Preliminary Contamination Investigations for Development/Lease Variation Purposes</u> and <u>Information sheet 11 – EPA Report Submission Requirements</u> and should be updated prior to submission.	14 October 2022
	Revised EIS comment: The Noise Management Plan for the proposed BESS shows multiple predicted noise non-compliances during day and night. It is recommended the applicant be required to demonstrate noise from the proposed development complies per the <i>Environment Protection Regulation 2005</i> . There is not sufficient discussion about managing fire suppression water runoff. Further information will be provided following review of detailed plans and reports at the DA stage.	30 March 2023
ACT Heritage Council	<ul> <li>Heritage Act 2004 (Heritage Act) approvals are not required for the proposal, however adherence to unanticipated discovery protocols (UDPs) will be required during all works. Minor amendments to the UDP are required:</li> <li>The UDP must identify that the discovery of Aboriginal places and objects must be reported to the Council within five working days (as per Section 51 of the Heritage Act);</li> <li>References to 'Conservation Management Plan' should be replaced with 'Statement of Heritage Effect' or other exception under issued under Section 76 of the Heritage Act;</li> <li>The EIS should be edited to note that all Aboriginal places and objects are protected under the Heritage Act and do not need to meet significance criteria in order for this protection to be applied.</li> </ul>	17 October 2022
	Revised EIS comment: The council endorses the revised EIS subject to the condition that the UDP included in the EIS must be followed during all works and incorporated into the project's CEMP (where applicable).	28 March 2023
	Updated Revised EIS comments: The council endorses the revised EIS subject to the condition that the UDP included in the EIS must be followed during all works and incorporated into the project's CEMP (where applicable).	13 October 2023

	The Council also noted the following: The updated offset location contains three registered Aboriginal places and has high potential to contain additional unrecorded Aboriginal places. It is understood that no specific works are currently proposed for the offset area. A change in zoning, and public use for recreation, education and research is proposed in future. This changed use will include actions such as new access tracks, fencing and other aspects of land management such as revegetation. It is considered that these future actions could avoid impacts to Aboriginal places through careful planning of the location and nature of the works. Any works or actions associated with the creation of the offset area and its ongoing management must not cause damage to Aboriginal places without <i>Heritage Act 2004</i> approvals. Heritage assessment requirements may also be identified in future dependent on the extent and nature of any proposed works (such as access tracks) or revegetation activities.	
ACT Health	The Health Protection Service ( <b>HPS</b> ) advises that applicant that the design and construction of any sedimentation ponds must minimise the potential to cause an insanitary condition (local mosquito nuisance) under the <i>Public Health Act 1997</i> ( <b>Public Health Act</b> ). If the proposed water tank is a rainwater tank, the applicant is advised any taps or outlets supplied by the rainwater tank must be clearly and appropriately identified.	7 October 2022
Transport Canberra and City Services	No comments, Transport Canberra and City Services ( <b>TCCS</b> ) will provide comment or advice during the DA stage.	2 November 2022
Utilities Technical Regulation	Utilities Technical Regulation ( <b>UTR</b> ) has the authority to grant a Design and Construct operating certificate for the BESS in accordance with the <i>Utilities (Technical Regulation) Act 2014</i> ( <b>UTR Act</b> ). <u>Proposal</u> There is no information provided to demonstrate how the 2 x 30,000 litre water tanks volume was determined. Barrier or fence to be determined during detailed design, however no discussion regarding UTR's comments of the need for a fence for security safety reasons. If connection to the substation is via underground cable, signage showing the location of the of the underground cable will be necessary. Safety measures to avoid hazards arising from inadvertent excavation and damage of HV cables should be provided. <u>Water Quality and Hydrology; Soil Contamination; Hazard and Risks</u> Mitigation measures for slow and fast contaminant release may be required for mitigating damage from rapid loss of large quantities of volatile toxic liquids from equipment fault explosions. There is no specific commitment or criteria identified for segregation of battery packs and inverter stations to allow for firefighting <b>access. Some</b> <b>relevant</b> standards such as AS/NZS 4853, AS EGO and AS EG1 are not referenced. The EIS has not identified specific	17 October 2022

	metallic structures/assets that need to be assessed for potential excessive electromagnetic interference hazards due to the BESS installation.	
	Revised EIS comment: Response to the issues raised at the draft stage are considered acceptable if correctly applied and implemented using the latest version of Standards and Guidelines relating to substations and electrical infrastructure.	28 March 2023
The Department of Climate Change, Energy, the Environment and Water	DCCEEW noted that throughout the document, reference to Commonwealth policy documents such as the SPRAT database, Conservation Advices, Recovery Plans, Significant Impact Guidelines and other best practice guidelines is inconsistent and must be referenced to demonstrate consistency with survey, avoidance, mitigation and offsetting approaches. The date, reliability and uncertainties of sources are not given. Description of habitat in the surrounding 5 km has not been met. The Environmental History of the company is incomplete – no details of the environmental record are provided.	17 October 2022
	Revised EIS comment: Nil comments.	28 March 2023
	Updated Revised EIS comments DCCEEW advised that the revised offset is an acceptable alternative to the original proposal.	16 October 2023
Belconnen Community Council	Nil response.	
Evoenergy	Evoenergy has no significant comments that aren't already captured by other entities and subsequently addressed in the report. The BESS is being proposed to be located at a site adjacent to the proposed site for a future Evoenergy Zone Substation but will not be connecting to Evoenergy's network.	16 November 2022

The entity comments are included in this report where they relate to each potential impact. Any matters to be considered or conditions that have been recommended by a referral entity will be included in **Section 6** of this report.

### 2.4.3. Request for revision of draft EIS

The Authority provided their preliminary review of the draft EIS, and entity comments to the proponent. The proponent was required to revise the draft EIS, to take into consideration all comments from EPSDD and entities, to demonstrate how the matters have been taken into account in the revised EIS.

## 2.5. Revised EIS

On 27 February 2023, Umwelt, on behalf of the proponent, submitted a revised EIS to the Authority pursuant to section 221 of the PD Act. A brief adequacy review was undertaken to confirm that all appropriate sections and appendices had been included. The revised application was circulated to selected entities to confirm their matters raised in earlier referrals had been addressed.

## 2.6. Revised EIS - Offset Updated

On 15 September 2023 the applicant submitted a further revised EIS to the Authority. The revised EIS relocated the offset site within the same block which, upon investigation, was considered to be more easily accessible for offset management activities and have fewer impacts on existing farm operations than the previously preferred option. The revised updated EIS included an updated Biodiversity Offset Strategy to reflect the proposed changes to the offset site.

Further comments were requested from relevant entities on the updated revised EIS.

The comments on the revised and further updated revised EIS received from entities are summarised in Error! Reference source not found..

Following this, the Authority commenced assessment of the revised EIS in accordance with section 222 of the Act.

## 2.7. Revised EIS – Final Version

Minor clarifications were requested from the proponent following the assessment of the revised EIS. On 26 February 2024, Umwelt submitted the revised version of the EIS.

The Authority reviewed the revised EIS for:

- adherence to the final scoping document and legislative requirements,
- consideration and incorporation of the Authority's and entity comments provided on the draft EIS and Revised EIS.

Matters to be considered during the assessment include possible conditions of approval for any subsequent DAs for this proposal, as identified in **Section 6** of this report.

The Authority is satisfied that Umwelt on behalf of Neoen adequately addressed the Authority's and entity comments.

The revised EIS, updated revised EIS and further revised EIS were not publicly notified.

## 2.8. Additional public consultation

During the Commonwealth EPBC referral submission in February 2021, the project was on public exhibition and received eight public comments. These comments have been responded to in the EIS.

In addition to the statutory notification performed by the Authority at the draft EIS stage and the EPBC referral, the proponent conducted a number of different consultation activities, including:

- proposal website;
- stakeholder meetings;
- consultation with Representative Aboriginal Organisations;
- letterbox drop; and
- community information sessions and community events.

In accordance with the scoping document, the proponent undertook consultation with relevant stakeholders and members of the public, using a range of methods for communication, and considering feedback.

The proponent provided details of these activities in their revised EIS including key dates and methods of consultation and criteria used for identifying stakeholders to be consulted with. The revised EIS also provides details on the information provided during the community consultation process and a summary of matters raised with responses from Neoen.

#### 2.8.1. Proposal website

Neoen established a website (<u>www.territorybattery.com.au</u>) during the early stages of the project's development to provide information to the community, and it will continue to be updated throughout the project's lifetime. The website allows the public to comment on the proposal via email, phone, SurveyMonkey survey, registration of interest in the Territory Battery Community Co-investment Scheme, information about upcoming community events or information sessions, and an option to tour the project once operational.

#### 2.8.2. Stakeholder meetings

Neoen has engaged with the following stakeholders through one-on-one meetings to introduce the company and discuss the project, and the outcomes of each stakeholder meeting is summarised in Section 16.5 of the revised EIS:

- Ginninderry
- Icon Water LMWQCC
- The Conservator of Flora and Fauna
- ACTF&R
- UTR
- Smart Energy Council
- ACTsmart Schools Program.

Neoen has noted in the EIS they will continue to engage with these stakeholders and others throughout the remainder of the EIS and DA process, and during subsequent stages of the project

design, construction, operation, and decommissioning.

#### 2.8.3. Community information sessions

Neoen held two community information sessions, one in March 2022 at the Strathnairn Arts Centre Woolshed and another in November 2022 at The Link in Ginninderry. Members of the public were invited to attend through local media, letterbox drops, and via the Ginninderry community noticeboard. Other key stakeholders within the ACT region were contacted directly and personally invited to the events, such as members of the ACT Legislative Assembly. The community information sessions were a casual event where the public could read information about the project and ask questions of the Neoen and Umwelt project teams.

Attendees at the sessions were invited to provide comments and feedback on the proposal via a feedback form. Neoen did not receive any responses to the feedback form at the March event and received two responses at the November event. The EIS states additional community information sessions will be held during the detailed design and construction phases of the project.

## 2.9. Giving the EIS to the Minister for Planning

Following the proponent's response to issues raised through the draft EIS stage, the Authority accepted the revised EIS under section 222 of the PD Act. The findings and outcomes of the review of the EIS are included in this report, which is provided to the Minister for Planning with the EIS in accordance with section 225. Once the Minister has received the EIS, they may:

- under section 226 choose to take no action on the EIS; or
- under section 227 present the EIS to the Legislative Assembly; or
- under section 228 establish an inquiry panel to inquire about the EIS. The Minister must make this decision within 15 workings day of receiving the EIS from the Authority. The requirements for establishing an inquiry panel are detailed under Part 8.3 of the PD Act.

Under section 209 of the PD Act, an EIS is completed if the Minister:

- a. gives the Authority a notice of no action under section 226;
- b. has not decided to establish an inquiry panel to inquire about the EIS;
- c. has established an inquiry panel for the EIS and:
  - i) the Panel has reported the results of the inquiry; or
  - ii) the time for reporting under section 230 has ended.

The Authority's recommendation to the Minister can be found in **Section 7** of this report.

#### 2.10. Lodging a development application

Once the EIS has been completed the proponent can lodge a DA in the impact track. Any subsequent DA related to the EIS must include the completed EIS. The **EIS expires five years** after the day it is completed.

#### 2.11. Commonwealth environmental impact assessment requirements

Under the EPBC Act, a person must not take an action that has, will have, or is likely to have a significant impact on a matter of national environmental significance (**MNES**) without approval from the Commonwealth Minister for the Environment. It is the responsibility of the person proposing the action to refer the project to the Commonwealth Minister if the action proposed is likely to have a significant impact on MNES, the environment in general (for actions on Commonwealth land) or the environment on Commonwealth land (for actions outside Commonwealth land).

Under Part 5 of the EPBC Act, the Commonwealth Government has accredited the ACT's assessment process through the assessment bilateral agreement between the ACT and Commonwealth governments (June 2014) as meeting the environmental assessment requirements of the EPBC Act.

In February 2021, Neoen referred the Territory Battery (EPBC 2021/8884) to the Commonwealth Minister as required under the EPBC Act. In the referral documentation the proponent advised the project was likely to have significant impacts on listed threatened species and communities.

On 22 February 2021, DAWE (now DCCEEW) referred the project to the ACT Minister for Planning for comment. On 5 March 2021, the Authority responded to DAWE stating that the assessment bilateral is applicable if a controlled action decision is made.

On 22 March 2021, a delegate for the Commonwealth Minister for the Environment determined the Territory Battery required approval under the EPBC Act, as significant impacts were likely on the following MNES:

• Listed threatened species and communities (section 18 & 18A of the EPBC Act).

During the ACT EIS assessment process, the Commonwealth provided comments on MNES and EPBC requirements during the preparation of the scoping document (**Appendix F01**), the draft EIS and revised EIS.

Once finalised by the ACT Minister for Planning, this report and supporting documentation will be provided to the Commonwealth Minister (or delegate) to determine whether to approve the project under the EPBC Act.

#### 2.12. Documentation referenced in this report

The documentation referenced in the Authority's assessment report includes:

- EPBC Referral documentation and attachments,
- revised EIS and supporting documentation,
- updated revised EIS and supporting documentation,
- entity comments on the draft EIS, revised EIS and updated revised EIS,
- correspondence received from proponent, and
- statutory documents.

# 3. Assessment of impacts

This section summarises issues identified in the scoping document that had to be assessed in the EIS. For each set of identified issues, the results of the proponent's assessment are summarised under the following headings:

- key findings;
- impacts;
- mitigation and avoidance; and
- scoping document requirements.

#### 3.1. Soils, Geology and Contamination

Soils, Geology and Contamination relates to construction, operation, and decommissioning phases of the proposal.

#### 3.1.1. Key findings

The EIS states that the proponent's assessment of Soils and Geology was informed by a number of investigations that were undertaken, including:

- A Preliminary Site Investigation (Contamination) (**PSI**) (Douglas Partners, 2022) Appendix F06 of the Revised EIS
- Groundwater Impact Assessment (Umwelt Pty Ltd, 2022) Appendix F05 of the Revised EIS
- Desktop reviews from a range of data sources.

The PSI involved a site walkover to identify potential contamination sources and environmental receptors, excavation of 20 test pits, soil sampling from multiple depths, and laboratory testing of soil samples. A conceptual site model was created from the data and was used to inform potential soil contamination impacts associated with the proposal, and to identify measures for mitigating and managing impacts.

#### Soils and Geology

The proposal area is located within the mapped Burra Soil Group, which is characterised by undulating to rolling low hills and alluvial fans on Silurian Volcanics. This soil group has strongly acidic soils with low fertility and low available water-holding capacity. There are no known fault structures within the proposal area, however several fault lines are located to the north of the proposal area. Earthwork activities (including vegetation clearance, construction of site access, substation, trenching/cabling and drainage works) associated with construction and decommissioning of the proposal would generate spoil that could lead to increased sedimentation of nearby waterways. These erosion and sedimentation impacts could be exacerbated by the increase in areas of impervious or lower permeability surfaces once the proposal is operational.

#### **Contamination**

Potential sources of contamination in the proposal area include fill and pesticides, associated with past and ongoing agricultural land use in the area. No evidence of soil contamination (e.g. staining, odours or unnatural material) was found during the field investigations. Receptors sensitive to contamination in the proposal area include current users of the site, primarily agricultural workers, and people involved in construction, maintenance and decommissioning of the proposal. Sensitive environmental receptors include surface water, groundwater, and terrestrial ecosystems. Spills or

leaks of fuel or chemicals (from machinery required for construction and decommissioning activities) could release contaminants onto site and result in soil contamination. The EIS states the BESS site would be gravelled, with key infrastructure such as the battery packs and inverter stations built on concrete slabs, thus the potential for on-site soil contamination is limited.

#### 3.1.2. Impacts

The potential Soils, Geology and Contamination impacts identified in the EIS were:

- Erosion and sedimentation as a result of earthwork activities
- Site contamination from the use of contaminated fill material from off-site
- Soil contamination from fuel or chemical leaks/spills or inappropriate material storage.

#### 3.1.3. Mitigation and avoidance

Table 5 details the avoidance measures associated with Soils and Geology as proposed in the EIS:

Table 5 Mitigation measures (Soils, Geology and Contamination)

Proposed mitigation measures	Stage of implementation
A pre-construction assessment of the construction laydown area will be undertaken to confirm the contamination status of the area prior to construction commencing.	Construction
<ul> <li>An industry best practice Construction Environmental</li> <li>Management Plan (CEMP) will be implemented that includes: <ul> <li>a Soil and Water Management Plan (SWMP) which details procedures to manage any unexpected contaminated finds and for mitigating and managing soil and water impacts, including to manage erosion and sedimentation,</li> <li>a Chemical Storage and Management Plan (CSMP) that includes a procedure for remediation and creation of a RAP and that sets out controls for the transportation, storage and management of fuels and chemicals used during construction and a procedure for remediation if any contamination occurs, and</li> <li>a Waste Management Plan (WMP) to address the storage and stockpiling of materials such as fill and transport of materials to site.</li> </ul> </li> </ul>	Construction
Only certified clean fill will be imported to site, if required, and spill kits will be located on site during construction.	Construction
An Erosion and Sediment Control Plan ( <b>ESCP</b> ) will be implemented that will detail the design standards for the drainage, erosion and sediment controls.	Construction, Operation, Decommissioning
<ul> <li>An industry best practice Environmental Management Plan (EMP)</li> <li>will be implemented that includes: <ul> <li>a SWMP for mitigating and managing soil and water impacts, including measures to minimise and manage erosion and sedimentation</li> <li>a CSMP that sets out controls for the transportation, storage and management of fuels and chemicals used during operation and maintenance and involves the creation of a Remediation Action Plan (RAP).</li> </ul> </li> </ul>	Operation, Decommissioning

#### 3.1.4. Scoping document requirements

Table 6 details the risks associated with Soils, Geology and Contamination as defined in the EIS:

Potential Impact	Risk Assessment			
	<b>Risk</b> (before mitigation)	<b>Likelihood</b> (after mitigation)	<b>Consequence</b> (after mitigation)	Residual risk
Impact due to contamination of soil from construction and operation.	Medium	Unlikely	Moderate	Low

Table 6 Scoping document requirements (Soils, Geology and Contamination)

# 3.2. Water Quality and Hydrology

Water Quality and Hydrology relates to construction, operation, and decommissioning phases of the proposal. It assesses both surface water and groundwater matters.

#### 3.2.1. Key findings

The EIS states that the proponent's assessment of water quality and hydrology was informed by a number of investigations that were undertaken, including:

- Territory Battery Stormwater Assessment (Umwelt, 2022)
- Neoen Territory Battery Energy Storage System Groundwater Impact Assessment (Umwelt, 2022)
- Report on Preliminary Site Investigation (Contamination) for the Proposed Territory Battery Energy Storage System (Douglas Partners b, 2022).

Desktop reviews using a number of sources (outlined in Table 6.2 in the Revised EIS) were also undertaken to identify existing surface water and groundwater conditions in the proposal area and surrounds. The stormwater and groundwater assessments did not involve any field-based investigations. The Preliminary Site Investigation involved a field investigation.

#### Surface Water

The proposal is located within the Molonglo River catchment, approximately 1.3 km southeast of the confluence of the Molonglo and Murrumbidgee Rivers and 700 m east of the Molonglo River. Unmitigated discharges of stormwater from proposal activities during construction, operation and decommissioning could result in surface water quality impacts from sedimentation or contamination of downstream aquatic ecosystems. Earthwork activities (including vegetation clearance, construction of site access, substation, trenching/cabling and drainage works) could also lead to increased sedimentation of nearby waterways if not managed appropriately. Potential surface water quality impacts arising from operation of the proposal would be associated with spills or leakages of materials used in the proposal infrastructure, particularly during maintenance activities such as refilling. Impacts to surface water associated with decommissioning would be similar to the impacts associated with construction as noted above.

#### <u>Groundwater</u>

The proposal area is located within the Lower Molonglo Water Management Area and the Uriarra Road Hydrogeological Landscape. Groundwater quality data is not available for the proposal area, however, water quality data from the closest known bore, 6 km east of the proposal area, indicates a neutral pH (7.1) and slightly brackish water (electrical conductivity of 1,800  $\mu$ S/cm). Groundwater quantity and hydrology could be impacted by the proposal through changes to the amount of stormwater seeping into the groundwater or via direct extraction. The proposal would involve an increase in the area of impervious or less permeable surfaces, which would lead to a localised increase in stormwater runoff and potentially a decrease in groundwater recharge, which could lead to a reduction of groundwater in the aquifer. On-site chemical spills or leaks during construction, operational and decommissioning phases have the potential to impact groundwater quality if the chemicals are transported through the soil into the underlying aquifer.

#### 3.2.2. Impacts

The potential risks water quality and hydrology impacts identified in the EIS include:

- Contamination of groundwater and/or nearby waterways as a result of fuel or chemical leaks/spills or inappropriate material storage
- Alteration of surface water quality by erosion and sedimentation from construction and decommissioning activities
- Increased impermeable surfaces changes water regimes, leading to changes in runoff and flow rate.

#### 3.2.3. Mitigation and avoidance

Error! Reference source not found.7 details the avoidance measures associated with Water Quality and Hydrology as proposed in the EIS:

#### Table 7 Mitigation measures (Water Quality and Hydrology)

Proposed mitigation measures	Stage of implementation
<ul> <li>An industry best practice CEMP will be prepared that includes:</li> <li>a SWMP to mitigate and manage soil and water impacts, including controls for minimising erosion and sedimentation, manage unexpected contamination finds etc.,</li> <li>a WMP to address the storage and stockpiling of raw materials, transport of materials to site and disposal of materials,</li> <li>a CSMP to set out procedures for the transportation, storage and management of fuels and chemicals to be used during construction and operation, including a procedure for remediation through the creation of a RAP.</li> </ul>	Construction
An ESCP will be prepared and will detail the design standards for	Construction, Operation,
the drainage, erosion and sediment controls.	Decommissioning
Management of site generated stormwater and site discharge	Construction, Operation,
will be in accordance with the principles and requirements of the	Decommissioning
Water Sensitive Urban Design (WSUD) Guidelines.	
A surface water and groundwater monitoring program will be established and implemented to provide baseline surface water	Construction

and groundwater quality data and to assess the performance of the proposal's mitigation measures.	
The water tanks to be used for fire-fighting will be clearly labelled at their outlets as rainwater tanks and not for consumption. The smaller water tank will provide potable water for staff and will be labelled accordingly.	Construction
<ul> <li>An industry best practice EMP will be prepared that includes:</li> <li>a SWMP to mitigate and manage soil and water impacts, including controls for minimising erosion and sedimentation</li> <li>a WMP to address the storage and stockpiling of raw materials, transport of materials to site and disposal of materials</li> <li>a CSMP that sets out the procedures for the transportation, storage and management of fuels and chemicals to be used during proposal operation, including a RAP.</li> </ul>	Operation and Decommissioning
Stormwater runoff will be managed via the onsite detention system to ensure that suspended solids or potentially contaminated water are not allowed to migrate off site.	Construction, Operation, Decommissioning

## 3.2.4. Scoping document requirements

**Table 8** details the risks associated with Water Quality and Hydrology as defined in the EIS.

Table 8 Scoping document requirements (Water Quality and Hydrology)

Potential Impact	Risk Assessment			
	<b>Risk</b> (before mitigation)	<b>Likelihood</b> (after mitigation)	<b>Consequence</b> (after mitigation)	Residual risk
Impact from changes to surface water flow	High	Unlikely	Minor	Very Low
Impacts to water quality of surface water or groundwater	Low	Unlikely	Minor	Very Low

## 3.3. Biodiversity and Conservation Values - Terrestrial flora and fauna

A Biodiversity Assessment Report (**BAR**) was prepared by Umwelt to assess potential impacts of the proposal. The BAR study area encompassed the BESS site, site access road corridor, construction laydown area, and the area of land between the BESS site and Stockdill Drive. The study area was larger than the proposal area to inform siting of different aspects of the project.

### 3.3.1. Key Findings:

The EIS refers to several sources of information in determining the potential impacts of the development on the identified ACT protected matters. Ecological field surveys were undertaken between October 2021 and January 2022 in a 9 ha area. A desktop review was conducted which included a review of existing ecological information of the area, search of ACTmapi to identify matters, review of Canberra Nature Map, review of regional vegetation mapping documentation, and a review of Woodland Quality and Extent Mapping – ACT Government Environmental Offsets (Capital Ecology, 2018).

The EIS noted nine (9) threatened species and communities listed under ACT legislation occur or have potential to occur in the broader study area, which is 12.5 ha. The study area encompasses a slightly larger area than the proposal area which is 8.9 ha. The following four (4) ACT listed vulnerable species were identified as being potentially present on the site as they are known to occur regionally:

- 1. Little Eagle (*Hieraaetus morphnoides*)
- 2. Varied Sittella (Daphoenositta chrysoptera)
- 3. White-Winged Triller (Lalage tricolor)
- 4. Scarlet Robin (*Petroica boodang*)

The following ACT listed species and communities are also Commonwealth EPBC Act listed, and the impact of the development on these matters has been considered in the Matters of National Environmental Significance assessment (Section 3.4):

- Yellow Box-Blakely's Red Gum Grassy Woodland Threatened Ecological Community which meets the criteria for EPBC Act listed White Box-Yellow Box Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Pink-tailed Worm-lizard (Aprasia parapulchella)
- Superb Parrot (Polytelis swainsonii)
- Golden Sun Moth (Synemon plana)
- Natural Temperate Grassland of the South-Eastern Highlands.

Hoary Sunray (*Leucochrysum albicans var. tricolor*) and Pale Pomaderris (*Pomaderris pallida*) were identified on ACTmapi as occurring within 2.5 km of the site, however, they were not detected in surveys and given the history of clearing and intensive grazing, and the location of the area relative to known populations of these species, the proposal area is unlikely to support this species and the EIS contains no further assessment.

#### **ACT Protected Matters**

#### 3.3.1.1. ACT protected matter - Little Eagle (Hieraaetus morphnoides)

The Little Eagle is a relevant item from Schedule 4, Part 4.3, Item 1 of the PD Act as it is a vulnerable species in the ACT.

The Little Eagle is one of the smallest eagles in the world, and typical habitat includes woodland or open forest. They generally nest in open woodlands in mature, living trees. Abundance of this species has declined in south-eastern Australia. <u>The Little Eagle (*Hieraaetus morphnoides*) Action Plan No. 35</u> (ACT Government, 2013) (action plan) states that the lower Molonglo Valley has been a stronghold for the species in the ACT.

The EIS states that the Little Eagle has been known to breed at two locations near the proposal area, 2 km north-east at Strathnairn and 3.6 km east at 'Lands End'. The species is regularly recorded by observers within the Molonglo Valley and Murrumbidgee Valley nearby to the proposal area. Satellite tracking for one male indicated that this individual likely utilised the proposal area for foraging. Given the vegetation type present in the area, the Little Eagle is considered likely to use the proposal area for foraging.

#### Known threats

The action plan states that the main threat to the species is loss of habitat due to urban development on remnant woodland and grassland. Potential or known impacts to the species as a consequence of this project is discussed below in Section 3.3.2.

#### 3.3.1.2. ACT protected matter - Varied Sittella (Daphoenositta chrysoptera)

The Varied Sittella is a relevant item from Schedule 4, Part 4.3, Item 1 of the PD Act as it is a vulnerable species in the ACT.

The Varied Sittella is a small climbing bird, and their habitat commonly includes eucalypt forest and woodland and is recorded in a variety of forest habitat in the ACT according to <u>the Conservation</u> Advice Varied Sittella (*Daphoenositta chrysoptera*) (ACT Scientific Committee, 2019) (conservation advice). Critical habitat features for the species include large living and dead trees for foraging, roosting, and nesting, and well-treed habitats, as it is rarely found in open areas or urban areas. The EIS states that Varied Sittella are highly likely to use areas of woodland present in the surrounding area for foraging, particularly woodland adjacent to Stockdill Drive. The species has been recorded at Woodstock Nature Reserve, Uriarra Crossing and alongside the Molonglo River.

#### Known threats

The conservation advice states that the main threat to the species is the decline in quality and quantity of woodland habitat, as the nature of the species is sedentary and cleared land offers a barrier to movement. Potential or known impacts to the species as a consequence of this project is discussed below in Section 3.3.2.

#### 3.3.1.3. ACT protected matter - White-winged Triller (Lalage tricolor)

The White-winged Triller is a relevant item from Schedule 4, Part 4.3, Item 1 of the PD Act as it is a vulnerable species in the ACT.

The White-winged Triller is a medium sized passerine, commonly seen in pairs, and is an uncommon, breeding summer migrant to the Canberra region. <u>The Conservation Advice White-winged Triller</u> (*Lalage tricolor*) (ACT Scientific Committee, 2019) (conservation advice) states they inhabit grassy

woodland areas. Critical habitat features include large living and dead trees for perching, roosting, foraging and nesting, and foraging areas of grass and fallen timber that support insects and other invertebrates as a feeding source. White-winged triller are regularly recorded at Shepherd's Lookout in Woodstock Nature Reserve and in the Uriarra Crossing area. White-winged triller are likely to utilise derived native grassland in the proposal area for foraging.

#### Known threats

The conservation advice for the species states that the main threat is the decline in quality and quantity of woodland habitat, in particular the removal of fallen timber which leads to a loss of foraging habitat. Potential or known impacts to the species as a consequence of this project is discussed below in Section 3.3.2.

#### 3.3.1.4. ACT protected matter - Scarlet Robin (Petroica boodang)

The Scarlet Robin is a relevant item from Schedule 4, Part 4.3, Item 1 of the PD Act as it is a vulnerable species in the ACT. The Scarlet Robin is one of three red breasted robins in Australia, and is distributed widely across the ACT in eucalypt woodlands and dry, open forest according to the <u>Scarlet Robin (*Petroica boodang*) Action Plan</u> (Conservator of Flora and Fauna, 2016) (action plan) and the <u>Conservation Advice Scarlet Robin (*Petroica boodang*) (ACT Scientific Committee, 2019) (conservation advice). The Scarlet Robin is regularly recorded at Shepherd's Lookout in Woodstock Nature Reserve and is occasionally recorded elsewhere along Stockdill Drive and in the Uriarra Crossing area. The nearest record is just north of the entrance to the Shepherd's Lookout walk approximately 150 m north of the study area. Suitable habitat in the proposal area is highly restricted.</u>

#### Known threats

The action plan for the species states that main threats include habitat loss and degradation, predation, climate change, and competition. Potential or known impacts to the species as a consequence of this project is discussed below in Section 3.3.2.

#### 3.3.2. Impacts

A number of habitat features relevant to ACT protected matters within the proposal area would be cleared as part of the proposal construction.

A total of 6.19 ha of the 7.55 ha of native vegetation mapped in the proposal area is in the construction footprint and would be cleared as part of the proposal. Of this, 4.69 ha would be used for siting of the facility and site access road, so is considered a permanent impact which would occur for the lifetime of the proposal and would be rehabilitated after the proposal is decommissioned. The remaining 1.5 ha is for the construction laydown area and is considered a temporary impact as it would be rehabilitated post-construction.

The EIS states the potential impacts on ACT listed terrestrial flora and fauna from the proposal include:

- unanticipated ecological impacts as a result of threatened species or communities not being identified prior to concept design,
- biodiversity loss as a result of construction activities that involve the clearance of native vegetation including ecological communities and/or habitat for threatened species,
- vegetation clearance outside the approved disturbance area due to unclear demarcation of boundaries,
- clearance of native vegetation results in a loss of connectivity or increased fragmentation of the landscape and obstruction of local movement corridors for threatened fauna,
- construction and/or decommissioning activities lead to injury or death of fauna, and
- spread of invasive species off site.

Native vegetation and habitat surrounding the construction footprint may be indirectly impacted by the proposal through the spread of invasive species off site during construction and decommissioning brought in or spread by equipment and machinery. Noise and vibration from the proposal is unlikely to have adverse indirect impacts on ecological values given the nature of the impact and the ecological values present. Erosion and sedimentation have the potential to impact ecological values adjacent to the proposal area through destabilisation of soils.

The EIS also states these potential impacts may contribute to cumulative environmental impacts in the region resulting from the proposal and other nearby developments. When considered in conjunction with the adjacent Stockdill Substation and development of Ginninderry, potential cumulative impacts of the combined developments on woodland birds are unlikely to be significant due to the extent of woodland and foraging habitat retained by the developments and which exists throughout the landscape. The majority of vegetation to be removed comprises derived native grassland, which does not constitute habitat for Varied Sittella or Scarlet Robin and provides low quality habitat for White-winged Triller. The removal of derived native grassland, box gum woodland and dry forest is unlikely to have a significant impact on the Little Eagle given the quality and extent of the habitat to be removed. Breaks in habitat connectivity to the surrounding environment are expected to be negligible as a result of the proposal.

### 3.3.3. Mitigation and avoidance

Throughout the site selection and concept design process of the proposal, areas of high ecological values identified by Umwelt (2022) have been largely avoided. The transmission line route and design will be selected during detailed design, following completion of the EIS and DA processes. These processes will include consideration of ways to further avoid and minimise ecological impacts.

Error! Reference source not found. details the avoidance measures associated with ACT listed terrestrial flora and fauna as proposed in the EIS.

 Table 9 Mitigation measures (ACT listed terrestrial flora and fauna)

Proposed mitigation measures	Stage of implementation
A CEMP will be prepared and include:	Construction
<ul> <li>signage and exclusion fencing of habitat</li> </ul>	
to identify the clearance and	
disturbance boundary,	
• site worker induction,	
<ul> <li>site access and parking demarcated,</li> </ul>	
<ul> <li>biodiversity related management</li> </ul>	
measures through a Biodiversity	
Management Plan sub-plan,	
<ul> <li>weed and pest animal management</li> </ul>	
controls in accordance with the	
Noxious and environmental weed	
control handbook and the ACT Pest	
Animal Strategy	

<ul> <li>a SWMP prepared as a sub-plan to manage erosion and sedimentation,</li> <li>pre-clearing survey methodology,</li> <li>a Noise and Vibration Management Plan (NVMP) prepared as a sub-plan,</li> <li>controls for mitigating lighting impacts, and</li> <li>proposal will be gravelled to minimise weed growth.</li> </ul>	
Pre-clearance surveys will be undertaken by a suitability qualified ecologist and the Conservator will be consulted.	Construction
<ul> <li>A EMP will be prepared and include:</li> <li>a Site Rehabilitation Plan that shows revegetation in accordance with approval conditions and landholder consultation,</li> <li>weed and pest animal management,</li> <li>controls for mitigating lighting impacts,</li> <li>a SWMP prepared as a sub-plan,</li> <li>a NVMP prepared as a sub-plan,</li> <li>pre-clearance methodology,</li> <li>boundaries demarcated on site using signage and exclusion fencing, and</li> <li>surveys for boundaries prior to decommissioning works.</li> </ul>	Operation
Trees removed will be harvested for off-site reuse as coarse woody debris in the offset site.	Construction
Detailed design will avoid and minimise impact through positioning of the transmission line and the access road. Detailed design will consider ecological values and avoid habitat fragmentation.	Design
Any biodiversity rehabilitation is to be undertaken by a suitably qualified and experienced professional.	Construction, Operation and Decommissioning

#### 3.3.4. Scoping document requirements

Table 10 details the risks associated with ACT listed terrestrial flora and fauna as defined in the EIS.

Potential Impact	Risk Assessment			
	<b>Risk</b> (before mitigation)	<b>Likelihood</b> (after mitigation)	<b>Consequence</b> (after mitigation)	Residual risk
Impacts from removal of native vegetation	Very High	Possible	Moderate	Medium
Impacts to flora during construction	Very High	Possible	Moderate	Medium
Impacts to fauna during construction	Medium	Unlikely	Moderate	Low

Table 10 Scoping document requirements (ACT listed terrestrial flora and fauna)

## 3.4. Matters of National Environmental Significance (MNES)

A Biodiversity Assessment Report (BAR) was prepared by Umwelt to assess potential impacts of the proposal. The BAR study area encompassed the BESS site, site access road corridor, construction laydown area, and the area of land between the BESS site and Stockdill Drive. The study area was larger than the proposal area to inform siting of different aspects of the project.

### 3.4.1. Key Findings:

The proposed development has the potential to impact upon five (5) threatened species listed under the EPBC Act. The following listed threatened species and ecological communities were identified as being potentially present on the site as they are known to occur regionally:

- 1. White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived native Grassland Ecological Community critically endangered (EPBC, ACT)
- 2. Pink-tailed Worm-lizard (Aprasia parapulchella) (PTWL) vulnerable (EPBC, ACT)
- 3. Superb parrot (Polytelis swainsonii) vulnerable (EPBC, ACT)
- 4. Golden Sun Moth (*Synemon plana*) (**GSM**) vulnerable (EPBC, ACT) (assessed as critically endangered in the ACT but has since been downlisted)
- 5. Natural Temperate Grassland of the South Eastern Highlands (**NTG**) critically endangered (EPBC), endangered (ACT).
- 6. Eleven (11) migratory bird species were identified under the EPBC Act, as likely or known to occur within 10 km of the study area and are discussed below.

The EIS draws on several sources of information in determining the potential impacts of the development on the identified MNES. Sources of information include the Commonwealth Government's Species Profile and Threats (**SPRAT**) Database, EPBC Act Protected Matters Search, ACTmapi, Canberra Nature Map, Atlas of Living Australia, eBird, *Plant Communities in the South Eastern Highlands and Australian Alps within the Murrumbidgee Catchment of New South Wales* (OEH, 2011), and *2017 Woodland Quality and Extent Mapping – ACT Government Environmental Offsets* (Capital Ecology, 2018) in support of the field investigations performed in the preparation of the EIS. Significant impact assessments were undertaken for MNES that were considered to be at

risk of impact by the proposal, in accordance with the *Matters of National Environmental Significance: Significant Impact Guidelines 1.1* (DoE, 2013).

Field surveys were conducted in October 2021 to identify all native vegetation and conformance to EPBC Act and/or NC Act listed threatened ecological communities. Vegetation plots were conducted in January 2022 to determine the condition of Plant Community Types consistent with the ACT Offsets Calculator Assessment Methodology. Targeted surveys were undertaken for PTWL, GSM, and Superb Parrot. The BAR study area did not include the transmission line corridor, as the Biodiversity Impact Assessment for Stockdill Substation (as part of the ACT Second Electrical Supply Project EIS) was used to inform the impact assessment. The study area in the EIS encompasses the BAR study area and the transmission line corridor to form an area of approximately 12.5 ha.

According to the *Matters of National Environmental Significance: Significant Impact Guidelines* 1.1 (significant impact guidelines), 'habitat critical to the survival of a species or ecological community' refers to areas that are necessary:

- for activities such as foraging, breeding, roosting, or dispersal
- for the long-term maintenance of the species or ecological community (including the maintenance of species essential to the survival of the species or ecological community, such as pollinators)
- to maintain genetic diversity and long-term evolutionary development, or
- for the reintroduction of populations or recovery of the species or ecological community.

The significant impact guidelines outline that an 'important population' is a population that is necessary for a species' long-term survival and recovery. This may include populations identified as such in recovery plans, and/or that are:

- key source populations either for breeding or dispersal
- populations that are necessary for maintaining genetic diversity, and/or
- populations that are near the limit of the species range.

Specific requirements for habitat critical or important population definitions may be included in species- or ecological community-specific statutory documents. The EPBC Act states that an action cannot be approved that is 'clearly unacceptable', however 'unacceptable' is not defined under the EPBC Act. In the EIS, the acceptability of an impact has considered issues including:

- the nature and extent of impacts on MNES
- the social and economic benefits to be delivered by the proposal
- the capacity of the government to meet its commitments.

An unacceptable impact would be a serious or irreversible impact on a protected matter that cannot be adequately mitigated or compensated.

#### **EPBC** protected matters

### 3.4.1.1. EPBC protected matter – White Box – Yellow Box – Blakely's Red Gum Grassy Woodlands and Derived Native Grasslands

White Box – Yellow Box – Blakely's Red Gum Grassy Woodlands and Derived Native Grasslands is a relevant item from Schedule 4, Part 4.3, Item 1 and Item 2 of the PD Act as it is listed as a critically endangered ecological community in the ACT and under the EPBC Act. The EPBC Act and NC Act listed box gum woodland is collectively referred to as BGW.

The <u>National Recovery Plan White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived</u> <u>Native Grassland</u> (recovery plan) outlines BGW as an ecological community that can occur as either woodland or derived native grassland. BGW occurs along the western slopes and tablelands of the Great Diving Range from southern Queensland through New South Wales and the ACT to Victoria. It provides important habitat for a range of woodland animals including marsupials, reptiles, amphibians, birds and invertebrates. To be determined part of the EPBC ecological community, areas must:

- have a predominantly native understorey (more than 50% of the perennial vegetative ground layer must compromise native species), and
- be 0.1 ha or greater in size and contain 12 or more native understorey species (excluding grasses), including one or more identified important species (which are listed in the National Recovery Plan)
  - or,
- be 2 ha or greater in size and have either natural regeneration of the overstorey species or an average of 20 or more mature trees per ha.

### Known threats

According to the recovery plan, due to the ecological community's occurrence on fertile soils it has been extensively cleared for agriculture, and intact remnants, including both trees and unmodified understorey, are now extremely rare. Very few high-quality remnants remain anywhere across its former range. Current estimates indicate that only 405,000 ha of the ecological community in various condition states remains. Clearing and fragmentation for urban, rural residential, agricultural and infrastructure development remain on-going threats to this ecological community, while degradation resulting from inappropriate management and weed invasion by introduced perennial grasses continues to erode the conservation value of remnant areas.

### Potential impacts

The proposal area contains a total of 7.52 ha of BGW. All areas meet the commonwealth criteria for the critically endangered ecological community. 6.19 ha of BGW is within the construction footprint and would be directly impacted. The majority is derived native grassland. This includes 4.1 ha for the placement of the BESS and site access road, up to 0.59 ha for transmission line connections to the Transgrid Stockdill Substation, and up to 1.5 ha of temporary impacts for construction laydown. Table 19 includes a recommended condition that restoration of vegetation occur in construction laydown areas and any other areas no longer needed by the project. No wooded areas of BGW present in the study area would be impacted, with only one woodland tree likely to be removed as a result of construction. The works would result in a permanent loss of 4.69 ha of BGW.

According to the criteria outlined in the significant impact guidelines, there is potential for the proposal to have a significant adverse impact on BGW, as it is likely to:

- reduce the extent of an ecological community, through the clearing of 6.19 ha, and
- potentially adversely affect habitat critical to the survival of an ecological community, as all BGW that meets the minimum condition criteria should be considered critical to the survival of the ecological community.

The majority of BGW to be cleared as part of the proposal is highly degraded, meeting condition thresholds on the basis of being part of a continuous patch of native groundcover. It is unlikely the proposal will fragment or increase fragmentation of an ecological community, for example by clearing vegetation for roads or transmission lines, as the site access road has been positioned to

minimise impacts to trees. The EIS states the proposal would not result in any changes to connectivity or gaps between remnant woody vegetation.

Given the likelihood for a significant adverse impact, impacts to BGW require offsetting. Mitigation measures are outlined in Table 11 and have been considered in the significance impact assessment for BGW under the EPBC Act. Additionally, a recommended condition has been included in Table 19 that *"the proponent must not clear more than 6.19 ha of White-box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland*.

### 3.4.1.2. EPBC protected matter – Pink-tailed Worm-lizard (Aprasia parapulchella)

The PTWL is a relevant item from Schedule 4, Part 4.3, Item 1 of the PD Act as it listed as a vulnerable species in the ACT and under the EPBC Act.

PTWL occurs in NSW, Victoria and the ACT where it is widely but patchily distributed and fragmented. The '<u>Conservation Advice Aprasia parapulchella Pink-tailed Worm-lizard</u>' (conservation advice) outlines sites in the ACT known to contain PTWL, mainly along the Murrumbidgee River and the Molonglo River corridors as well as some of the hills within Canberra Nature Park. PTWL habitat includes primary and secondary grassland, grassy woodland and woodland communities, and usually sloping sites that contain rocky outcrops or scattered partially buried rocks. Individuals are most commonly found sheltering under rocks and in ant burrows, which are considered important foraging and shelter sites.

During surveys two PTWL individuals were detected within areas outside the proposal area to the north and west. These individuals were detected in moderate-high quality habitat, but not in the more degraded areas mapped as moderate quality. While the species is most likely to primarily utilise higher quality habitat, the EIS states all rocky habitat areas are assumed to be occupied.

#### Known threats

According to the conservation advice, habitat loss, fragmentation and degradation are considered as known threats in these areas, as well as other potential threats such as removal of rocks, inappropriate fire regimes, and predators. Habitat has been lost from many parts of the PTWL range through urban development, forestry and agriculture. This habitat loss increases the level of habitat fragmentation that may have serious implications for dispersal and gene flow.

#### Potential impacts

Approximately 0.5 ha of PTWL habitat in the proposal area is within the construction footprint and would be cleared during construction. The total habitat present in the study area is 3.52 ha, so with a clearance of 0.5 ha, the amount avoided is 3.02 ha. The transmission line corridor includes two potential routes, and during detailed design, route selection will consider ways to avoid and minimise impacts to PTWL habitat. Once the route is confirmed, impacts will be smaller than the 0.5 ha that has been assessed. In addition, the use of an overhead transmission line and strategic placement of poles outside of PTWL habitat, rather than underground cabling, would further reduce impacts.

All PTWL habitat in the proposal area and study area more broadly is considered continuous in the context of functional connectivity, as all patches are less than 50 m from neighbouring habitat (a distance across which dispersal is considered possible). The habitat is considered to be part of a larger, continuous habitat patch within the Murrumbidgee River corridor which is more than 5 ha in size. According to the ACT Environmental Offsets Calculator Assessment Methodology, offsetting for PTWL would only be required if more than 10% of the total habitat patch is impacted, or if the

proposal results in fragmentation. As the habitat is contiguous with habitat in the Murrumbidgee Corridor, individuals within the study area are considered to be part of a key source population, and therefore part of an important population.

The removal of 0.50 ha of degraded moderate quality PTWL habitat in the proposal area is unlikely to cause the species to decline in the local area due to the extensive distribution of higher quality habitat in adjacent protected areas in the Murrumbidgee River corridor. The proposal would not modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.

According to the significant impact guidelines and the EIS, the proposal is unlikely to have a significant adverse impact on PTWL and offsetting is therefore not required for this species. A recommended condition has been included in Table 19 that *"the proponent must not clear more than… 0.5 ha of Pink-tailed Worm-lizard* (Aprasia parapulchella) *habitat"*.

### 3.4.1.3. EPBC protected matter - Superb Parrot (Polytelis swainsonii)

The Superb Parrot (*Polytelis swainsonii*) is a relevant item from Schedule 4, Part 4.3, Item 1 of the PD Act as it is listed as a vulnerable species in the ACT and under the EPBC Act.

The Superb Parrot's core range is west of the Great Dividing Range in NSW from Canberra, Goulburn and as far west as Nyngan and Swan Hill. According to the '<u>Conservation Advice Polytelis swainsonii</u> superb parrot' (conservation advice), there are three main breeding areas, all in NSW or Victoria.

Most nest sites are within 10 km of BGW and are sometimes within it. In Canberra, they also nest in semi-urban environments where old trees have been retained. The same nest hollows are used in successive years, although it is not known if it is always by the same pair. After breeding, Superb Parrots use a variety of woodland types and other habitat types, including artificial habitats such as crops and recreation reserves. They mostly feed on the ground, where they eat a variety of native and introduced seeds, but also in shrubs and trees, on seeds and blossoms.

#### Known threats

The major threats to Superb Parrots according to the conservation advice are loss and degradation of habitat, competition for nest hollows, road kills, illegal removal of wild birds, Psittacine beak and feather disease, and climate change.

#### Potential impacts

BGW is mapped extensively throughout the region surrounding the proposal and is known to contain both breeding and foraging habitat for Superb Parrots. There have been sightings of Superb Parrots within 5 km of the proposal, particularly to the southeast. BGW in the study area contains potentially suitable breeding and foraging habitat for the species. Nine hollow-bearing trees were found within the study area, two of which are located in or immediately adjacent to the proposal area. One other hollow-bearing tree is located outside the study area but adjacent to the proposal area. No Superb Parrots were recorded during the targeted surveys, nor incidentally during other ecological surveys in the study area during other ecological surveys between October 2021 and January 2022. Superb Parrots were also not observed during field studies undertaken for the ACT Second Electrical Supply Project.

While Superb Parrots are likely to regularly disperse through the region and may occasionally forage in the proposal area, the lack of detection of the species during surveys within the breeding season

means it is highly unlikely that the species breeds in or within 200 m of the study area. The EIS contained no further assessment of impacts to the Superb Parrot.

The location of the access road was specifically positioned in a location between Stockdill Drive and the proposed BESS site to avoid and minimise impacts to trees in the north-central part of the study area. Direct impacts to native vegetation have been minimised through the concept design of the proposal, particularly with positioning of the site access road to avoid impacts to box gum woodland and hollow-bearing trees. The proposal would likely require clearance of one hollow-bearing paddock tree and may have indirect impacts (e.g. compaction of adjacent ground, impacts to roots, alteration of local hydrology etc.) on one additional hollow-bearing tree, which is unlikely to lead to the loss of habitat.

Given that the study area does not support Superb Parrot breeding habitat, the loss of up to two hollow bearing trees in this location is unlikely to impact breeding individuals.

### 3.4.1.4. EPBC protected matter – Golden Sun Moth (Synemon plana)

The GSM (*Synemon plana*) is a relevant item from Schedule 4, Part 4.3, Item 1 of the PD Act as it is listed as a vulnerable species in the ACT and under the EPBC Act.

GSM was historically widespread in south-eastern Australia. The distribution shows a close correlation to NTG. The '<u>Conservation Advice for Synemon plana</u> (Golden Sun Moth)' (conservation advice) states that since European settlement, NTG, and as such, areas of habitat for the GSM have been heavily reduced and fragmented. Many subpopulations are confined to remnant habitat of fewer than 5 ha. Recent survey efforts have improved the understanding of GSM distribution which has also increased discovery of habitat in Victoria, NSW and the ACT. Habitat includes areas containing, or having once contained, native grassland, open grassy woodlands and secondary grasslands, that retain a component of larval food species.

Habitat critical to the survival of the GSM has yet to be identified but likely includes all native grassland and open grassy woodland habitat occupies by the species across its range. As the species has specialised habitat requirements with a fragmented distribution, all occupied habitat is important for the breeding activity of the associated subpopulation and the recovery of the species.

#### Known threats

According to the conservation advice the GSM has a number of threats, including habitat loss, fragmentation and degradation, climate change, and inappropriate fire regimes.

#### Potential impacts

The EIS states that derived native grassland present in the proposal area has a low likelihood of being suitable habitat for GSM. In the EIS Scoping Document, the Conservator of Flora and Fauna requested that targeted GSM surveys be undertaken to confirm presence or absence of the species in the proposal area, citing a recording of GSM 1.5 km east of the proposal area, and advising that the area contains key food species. On 22 February 2022, the Conservator provided updated information clarifying that the GSM record 1.5 km east of the proposal area was incorrect and that targeted surveys would not be required. The DOE (now DCCEEW) also required surveys as stated in the Scoping Document/Handover Notes to confirm presence or absence of the species. Despite this, targeted surveys were undertaken during the 2021/22 flying season as part of the BAR. No GSM were detected during these surveys and the species was also not recorded during targeted surveys conducted for the ACT Second Electrical Supply Project. The EIS states GSM is therefore considered unlikely to occur in the proposal area and has not been considered further in the EIS.

### 3.4.1.5. EPBC protected matter – Natural Temperate Grassland of the South Eastern Highlands – critically endangered (NTG)

NTG is a relevant item from Schedule 4, Part 4.3, Item 1 of the PD Act as it is listed as a critically endangered ecological community in the ACT and under the EPBC Act.

NTG occurs in the South Eastern Highlands and patches are scattered widely in the Monaro region. NTG is a naturally treeless or sparsely treed ecological community characterised by a dominance of native perennial tussock grasses. The second stratum is often shorter perennial and annual grasses and forbs, and there may be a third stratum of smaller forbs, grasses and cryptogams. Sedges and rushes may also occur.

The <u>Approved Conservation Advice (including listing advice) for the Natural Temperate Grassland of</u> <u>the South Eastern Highlands</u> (conservation advice) outlines a number of diagnostic characteristics and conditions to aid in the identification of the ecological community.

#### Known threats

The main threats to the ecological community are agricultural intensification and urban development, impacts associated with fragmentation, inappropriate management including disturbance regimes (grazing, fire), invasive flora and fauna, and climate change.

#### Potential impacts

The study area does not contain vegetation that meets the key diagnostic characteristics for NTG as outlined in the conservation advice, as there is evidence of trees formerly occurring on the site in a density greater than that which would produce a 10% projective foliage cover. Due to evidence that the site formerly supported a woodland community, the native grassland in the study area was considered likely to be derived or secondary grassland rather than NTG. The EIS states that NTG has therefore not been considered further in this EIS.

#### 3.4.1.6. EPBC protected matter - Migratory species

The EPBC Act Protected Matters Search identified 11 migratory bird species as likely or known to occur within 10 km of the study area. The EIS states that there is no suitable habitat for nine of these migratory species within the study area, therefore their likelihood of occurrence is low. Marginal habitat is present for Satin Flycatcher (*Myiagra cyanoleauca*), Rufous Fantail (*Rhipdura rufifrons*) in the form of BGW within the study area, which these two species may very occasionally disperse through. White-throated Needletail (*Hirundapus caudacutus*) and Pacific Swift (*Apus pacificus*) are likely to occasionally forage in the airspace above the study area but would not interact with any physical habitat within the study area. Given these factors, the study area is not considered to support any important habitat for listed migratory species and these species have not been assessed further in this EIS.

#### 3.4.2. Impacts

#### Impacts to MNES from the proposal include:

- Unanticipated ecological impacts as a result of threatened ecological communities (TECs), threatened species habitat or other protected matters (e.g. native vegetation) not being identified prior to concept design.
- Biodiversity loss as a result of proposal construction activities that involve the clearance of native vegetation including TECs and/or habitat for threatened species.

- Vegetation clearance outside the approved disturbance area due to unclear demarcation of boundaries.
- Clearance of native vegetation results in a loss of connectivity or increased fragmentation of the landscape and obstruction of local movement corridors for threatened fauna.
- Construction and/or decommissioning activities lead to injury or death of fauna.
- Spread of invasive species off site.

These potential impacts may also contribute to cumulative environmental impacts in the region resulting from the proposal and other similar, nearby developments.

### 3.4.3. Mitigation, Avoidance and Offsets

Error! Reference source not found.**11** details the mitigation measures associated with MNES as proposed in the EIS.

Table 11 Mitigation measures (MNES)

Proposed mitigation measures	Stage of implementation
<ul> <li>A CEMP will be prepared and will include:</li> <li>signage and exclusion fencing of habitat to identify the clearance and disturbance boundary</li> <li>site worker induction</li> <li>site access and parking demarcated</li> <li>weed and pest animal management controls in accordance with the <i>Noxious and environmental weed control handbook</i> and the ACT Pest Animal Strategy</li> <li>SWMP prepared as a sub-plan to manage erosion and sedimentation</li> <li>pre-clearing survey methodology</li> <li>NVMP prepared as a sub-plan</li> <li>controls for mitigating lighting impacts</li> <li>proposal will be gravelled to minimise weed growth.</li> </ul>	Construction
Pre-clearance surveys will be undertaken by a suitability qualified ecologist and the Conservator will be consulted, including for translocation of PTWL.	Construction
<ul> <li>An EMP will be prepared and will include:</li> <li>Site Rehabilitation Plan that shows revegetation in accordance with approval conditions and landholder consultation</li> <li>weed and pest animal management</li> <li>controls for mitigating lighting impacts</li> <li>SWMP prepared as a subplan</li> <li>NVMP prepared as a subplan</li> <li>pre-clearance methodology</li> </ul>	Operation and Decommissioning

<ul> <li>boundaries demarcated on site using signage and exclusion fencing</li> <li>surveys for boundaries prior to decommissioning works.</li> </ul>	
Trees removed will be harvested for off-site reuse as coarse woody debris in the offset site.	Construction
Detailed design will avoid and minimise impact through positioning of the transmission line and the access road. Detailed design will consider ecological values and avoid habitat fragmentation.	Design
A Biodiversity Offset Strategy ( <b>BOS</b> ) has been prepared by a suitably qualified specialist and details how risks with the offset will be managed using outcomes based approach for offsetting impacts to BGW and will outline activities to satisfy outcomes. The BOS will be used to inform the Offset Management Plan ( <b>OMP</b> ).	Design, Construction, Operation and Decommissioning
An OMP will be prepared by a suitably qualified specialist and include detail of reporting and monitoring requirements.	Design, Construction, Operation and Decommissioning
Any biodiversity rehabilitation is to be undertaken by a suitably qualified and experienced professional.	Construction, Operation and Decommissioning

The proposed offset package is outlined in more detail in Section 3.5.

## 3.4.3.1 Australia's International obligations

The EIS does not describe whether the proposal is consistent with the Convention on Biological Diversity, the Convention on Conservation of Nature in the South Pacific (**Apia Convention**) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (**CITES**).

The Convention on Biological Diversity has the objectives of "the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources". The recommendations provided in this report are not considered inconsistent with the Convention, which has the general aim of conservation of biological diversity.

The Apia Convention encourages the creation of protected areas which together with existing protected areas will safeguard representative samples of the natural ecosystems occurring therein (particular attention being given to endangered species), as well as superlative scenery, striking geological formations, and regions and objects of aesthetic interest or historic, cultural or scientific value. The Apia Convention requires the protection of threatened species (species threatened with extinction) as completely as possible. While the Apia Convention was suspended with effect from 13 September 2006, Australia's obligations under the Convention have been taken into consideration. The recommendations provided in this report are not considered inconsistent with the Convention, which has the general aim of conservation of biodiversity.

The CITES is an international agreement between governments which aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival. The

recommendations provided in this report are not inconsistent with CITES as the proposed action does not involve international trade.

The proposal is not considered to be inconsistent with Australia's International obligations.

### 3.4.3.2 Recovery Plans and Threat Abatement Plans

The EIS states the proposal, including proposed mitigation measures, has been developed to ensure it is not inconsistent with the following recovery plans and threat abatement plans that are relevant to MNES:

#### <u>BGW</u>

• National Recovery Plan for White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland (Department of Environment, Climate Change and Water NSW, 2011)

The EIS states the use of a direct offset for BGW would allow the project to meet the objectives of the recovery plan, to achieve no net loss in extend and condition of the community throughout its geographic distribution, increase protection of sites with high recovery potential, increase landscape functionality of the community via management and restoration of degraded sites, and increase transitional areas around remnants and linkages between remnants.

#### Superb Parrot

• *National Recovery Plan for the Superb Parrot* Polytelis swainsonii (Department of Agriculture, Water and the Environment, 2022)

The EIS states the proposal is not inconsistent with the objective of the recovery plan to reduce impacts from anthropogenic threats (through the avoidance of impacts on the species).

#### All MNES

• *Threat abatement plan for competition and land degradation by rabbits* (Department of the Environment and Energy, 2016)

The EIS states the mitigation measures for the proposal will not result in an increase in rabbit numbers in accordance with the TAP. Mitigation measures include management of pest animals in the proposal area consistent with the ACT Pest Animal Strategy (ACT Government, 2010) and documentation of management controls within the CEMP and EMP. Potential management actions could include control actions such as warren destruction or poisoning. Management controls will be implemented in collaboration with the landholder. Monitoring programs to inform management as part of an adaptive management process have also been included as a mitigation measure.

• Threat abatement plan for the biological effects, including lethal toxic ingestion, caused by cane toads (Department of Sustainability, Environment, Water, Population and Communities, 2011)

The ACT Pest and Animal Strategy (ACT Government 2010) does not consider cane toads as this species does not occur in the ACT. Any suspected cane toads will be reported to the ACT Government for advice on management. Monitoring programs to inform management as part of an adaptive management process have also been included as a mitigation measure. It is noted, however, that the proposal area is several hundred kilometres from the predicted area of

occurrence of the cane toad, as identified in the threat abatement plan, thus cane toads are not considered to pose a particular risk to the proposal.

• Threat abatement plan for predation, habitat degradation, competition and disease transmission by feral pigs (Sus scrofa) (Department of the Environment and Energy, 2017)

The EIS states the mitigation measures for the proposal will not result in any actions that would cause an increase in feral pigs in accordance with the TAP. Mitigation measures include management of pest animals in the proposal area consistent with the ACT Pest Animal Strategy (ACT Government, 2010) and documentation of management controls within the CEMP and EMP. Potential management actions could include control measures such as trapping or 1080 baiting. Management controls will be implemented in collaboration with the landholder. Monitoring programs to inform management as part of an adaptive management process have also been included as a mitigation measure.

• *Threat abatement plan for disease in natural ecosystems caused by* Phytophthora cinnamomi (Department of the Environment and Energy 2018)

The EIS states the mitigation measures for the proposal will result in a reduction in the spread of weeds and pathogens in accordance with the TAP. *Phytophthora cinnamomic* is not known to occur within the proposal area however, hygiene protocols will be developed and implemented to reduce potential risks of spread or introduction. These protocols and management controls will be documented in the CEMP and EMP along with a monitoring program.

### 3.4.3.3 Conservation Advice

The EIS has had regard to the following approved conservation advice that are relevant to MNES:

• Approved Conservation Advice for the White Box - Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland (Threatened Species Scientific Committee, 2023)

This conservation advice was published following the completion of the BAR. While the TEC has not been reclassified against the newly defined condition classes, the area of TEC identified and the proposed mitigation and offset measures are not inconsistent with this advice. The avoidance of high quality BGW through design of the proposal is also consistent with the conservation advice's emphasis on the importance of avoidance ahead of mitigation, management and offsetting.

• Aprasia parapulchella (*Pink-tailed Worm-lizard*) Conservation Advice (Threatened Species Scientific Committee, 2015)

The EIS has had regard to this conservation advice as avoidance of moderate-high quality PTWL habitat in the proposal is in line with actions outlined in the conservation advice, in particular to identify and implement approaches to avoid/reduce the removal of rocks in order to preserve habitat integrity.

• Synemon plana (Golden Sun Moth) Conservation Advice (Department of Agriculture, Water and the Environment, 2021)

The EIS has had regard to this conservation advice and states that tests for significance were undertaken using the conservation advice.

• Polytelis swainsonii (Superb Parrot) Conservation Advice (Threatened Species Scientific Committee, 2016)

The EIS has had regard to this conservation advice and states that tests for significance were undertaken using the conservation advice.

### 3.4.4. Scoping document requirements

Table 12 details the risks associated with MNES as defined in the EIS.

Table 12 Scoping document requirements (MNES)

Potential Impact	Risk Assessment			
	<b>Risk</b> (before mitigation)	<b>Likelihood</b> (after mitigation)	<b>Consequence</b> (after mitigation)	Residual risk
Impacts from removal of native vegetation	Very High	Possible	Moderate	Medium
Impacts to flora during construction	Very High	Possible	Moderate	Medium
Impacts to fauna during construction	Medium	Unlikely	Moderate	Low

Although the proposal would have significant impacts on BGW, the EIS states the overall outcome is considered to be acceptable as residual adverse impacts to the ecological community will be mitigated and offset.

### 3.5. Offsets

An environmental offset package has been proposed to compensate for the residual impacts to BGW from the proposal. A Biodiversity Offset Strategy (BOS) has been provided at **Appendix F03**. The Offset Strategy has been designed to be consistent with the National Recovery Plan for White Box -Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland.

The proposed development will have significant impact on BGW as discussed in **Section 3.3.2.1** under *EPBC protected matter 1*. This impact is considered significant under the EPBC and NC Acts. The proposal was assessed under the ACT Assessment Bilateral Agreement. The impact of the proposal needs to be compensated with an offset area in accordance with the Commonwealth Environmental Offsets Policy. The Commonwealth Offset Tool is used to calculate the area of habitat required to compensate for the impact. The details of the calculation provided in **Appendix F03** of the revised and updated EIS.

### 3.5.1 Proposed Offset Site

The offset site is proposed within the ACT, Registered Rural Block 1188 in the District of Tuggeranong (see **Figure 4)**. The BOS details the offset requirements and the proposed strategy to meet these requirements.

The impacts of the proposal by clearance of up to 6.19 ha of BGW are divided into two parts based on duration of the impacts:

- Permanent/lifelong impact clearance of 4.69 ha for the BESS site, site access road and transmission line); and
- Temporary/short term impact clearance of 1.5 ha for construction laydown area and will be rehabilitated post-construction.

#### **Site context**

Block 1188 covers approximately 1,345 ha of privately leased land to the east of the village of Tharwa, located in a NUZ3 Hills, Ridges and Buffers zone. The proposed offset area covers 104.26 ha, enclosed by three boundaries with the Rob Roy and Gigerline Nature Reserves and the Murrumbidgee River Corridor, which are primarily managed by the ACT Parks and Conservation Service (PCS).

Part of the Gigerline Nature Reserve is located within the proposed offset area, this part of the proposed offset area would not contribute towards meeting the proposal's offset requirements. The proposed offset area also supports potential habitat for threatened species, including PTWL and woodland birds such as Scarlet Robin and Speckled Warbler.

The proposed offset area contains:

- 60.02 ha of ACT16, comprising 17.65 ha of box-gum woodland and 42.37 ha of derived native grassland (refer to Table 5.12 and Table 5.13 of the EIS).
- 32.77 ha of ACT18 (tableland dry shrubby woodland).

### 3.5.2 Offset Strategy

The BOS identified a high-level strategy for use of the proposed site as an offset. This strategy comprises the following basic elements:

- Secure the site as a direct offset, through land purchase;
- Engage an appropriately qualified land manager to deliver offset commitments;
- Protect land under conservation land use zoning (apply the Pc: Nature Reserve overlay);
- Manage the proposed offset area for habitat improvement and long-term resilience of MNES; and
- Invest in site infrastructure such as fencing and access tracks.

These strategy elements were considered in the offset assessment to determine whether the proposed offset would be sufficient for meeting the requirements of the EPBC Act Environmental Offsets Policy.

### 3.5.3 Offset activities

The following offset management activities have been identified in the EIS in accordance with the four key outcomes – improve connectivity, maintain extent, improve condition, and reduction of threats for each BGW zone in the proposed offset area:

- Manage invasive weeds and pest animals in accordance with an integrated management strategy with neighbouring land managers.
- Maintain an understorey with a heterogenous structure and herb mass using ecological burns and conservation grazing.
- Protect regenerating canopy species from grazing and browsing.
- Revegetate with canopy species to meet benchmark levels.

- Increase native forb diversity from low to moderate-high through targeted revegetation with local native species that are consistent with the BGW TEC, with at least one important species to be included.
- Revegetate to increase the cover of midstorey species and to replace habitat lost by the control of woody weeds.
- Add coarse woody debris, with the aim of meeting the benchmark level where possible.
- Management of areas of ACT18 and existing nature reserve located within the proposed offset area.
- Maintain a diversity of native grassland species and heterogenous structure within patches of BGW.
- Undertake appropriate measures to protect creek and gully lines and to control erosion following advice from an expert with demonstrated experience in gully erosion abatement and restoration.
- Remediate 4WD buggy tracks using native understorey species in accordance with grassland restoration techniques.
- Coarse woody debris will be sourced from the proposal area and other approved development sites and added into the proposed offset area in accordance with best practice. The distribution of the coarse woody debris across the proposed offset area will be limited to areas that are accessible by machinery and where potential site disturbance from the machinery can be avoided.

### 3.5.4 Ongoing monitoring, management and reporting

- In the EIS the proponent confirmed that the offset area will be managed by a third party Offset Manager under a commercial agreement and privately funded by Neoen. A funding model and commercial agreement will be established between Neoen and the appointed Offset Manager following EPBC Act approval. Funding will include costs associated with land management, ecological restoration, infrastructure development and maintenance, offset planning, monitoring, and reporting.
- The Offset Manager will be responsible for meeting all offset planning, management and monitoring obligations in accordance with ACT Government requirements. The Offset Manager will also prepare and submit the Offset Management Annual Report to Neoen which outlines the actions undertaken against the OMP and will provide summary of the results and recommendations from intermediary monitoring reports.
- The Offset area will not be managed as an agricultural enterprise but will require stock access and grazing for biomass management. It will therefore remain subject to a Land Management Agreement (LMA) in accordance with Section 283 of the PD Act. The LMA will be consistent with objectives of this Offset Strategy and subsequent OMP.
- Neoen will have to manage the offset for the lifetime of the proposal's impact (in the order of 30+ years) in accordance with the Commonwealth and ACT Environmental Offset Policies. Following completion of Neoen's offset commitments, three options are included in the EIS for the ongoing management for conservation purposes:
  - Continued management by Neoen;
  - $\circ$   $\;$  Transferral of site ownership to a third party land manager; and
  - Transferral of site ownership to the ACT Government for inclusion in the public reserve system.

Neoen has proposed that once all improvement commitments have been achieved and only ongoing maintenance of ecological values is required, they will seek to transfer the land to another party. Annual reporting and monitoring requirements would also be complete at this stage. Their preferred option is the integration of the site into the public reserve system to ensure its long-term protection.

Neoen will progress discussions with the ACT Government over the life of the offset with the ultimate aim to transfer the proposed offset area to the ACT Government to be included in the public reserve system. This transferral would occur once all offset commitments have been achieved, or as otherwise mutually agreed, to ensure no offset liabilities are transferred to the ACT Government.

The proposed offset is consistent with the requirements of the offsets policy.



Figure 4 Proposed Offset Site

## 3.6. Aboriginal and European heritage

Aboriginal and European cultural heritage relates to the construction phase of the proposal.

### 3.6.1. Key findings

The EIS states that the proponent's assessment of Aboriginal and European heritage was informed by the below investigation:

• Cultural Heritage Assessment (CHA) (Navin Officer Heritage Consultants Pty Ltd, 2022) - Appendix F07 of the EIS.

The CHA involved a literature and desktop review of archaeological and historical information, and field surveys undertaken in the presence of representatives from various Representative Aboriginal Organisations (**RAOs**) to identify any items or sites in Block 1634. A CHA was also undertaken in 2017 for a nearby EIS. The EIS also reviewed publicly available information to identify whether any registered items of European or natural heritage value are located within or near the proposal area. Statutory and non-statutory heritage lists and registers reviewed as part of the assessment included:

- Australia's World Heritage List,
- National Heritage List (Australian Heritage Database),
- Commonwealth Heritage List (part of Australian Heritage Database),
- ACT Heritage Register
- Register of the National Estate (RNE) (archived educational resource)
- National Trust Register
- Australian Engineering Heritage Register.

The EIS states that no known Aboriginal places or objects have been identified in the proposal area and has low Aboriginal archaeological potential. The closest recorded Aboriginal place or object was identified within the study area for the ACT Second Electrical Supply Project, within around 60 m of the proposal area. Potential impacts of the proposal on sites of Aboriginal heritage would therefore be limited to impacts to previously unidentified Aboriginal heritage places or objects during construction.

The closest European heritage place to the proposal area is Belconnen Farm, which is approximately 600 m northwest of the proposal area. The Lower Molonglo River Corridor, located within 700 m west of the proposal area, was listed as an indicative place on the RNE due to its importance as habitat for threatened species (as an indicative place it was not nominated or declared a listed place on the RNE). Potential impacts to listed European heritage places arising from the proposal are considered highly unlikely to occur, due to their distance from the proposal area and the nature of the proposal and potential indirect impacts (e.g. dust emissions or construction vibration). The EIS contains no further assessment of impacts to European heritage.

#### 3.6.2. Impacts

The potential Aboriginal and European cultural heritage impacts identified in the EIS were:

• Earthworks resulting in the destruction of previously unidentified Aboriginal cultural heritage places or items.

### 3.6.3. Mitigation and avoidance

Error! Reference source not found.**13** details the avoidance measures associated with Aboriginal and European heritage as proposed in the EIS:

#### Table 13 Mitigation measures (Aboriginal and European cultural heritage)

Proposed mitigation measures	Stage of implementation
An Unanticipated Discovery Protocol for managing impacts to any previously unidentified Aboriginal cultural heritage places or items that are found during construction will be implemented.	Construction
Construction personnel will be trained in the unanticipated discovery procedure.	Construction

### 3.6.4. Scoping document requirements

Table 14 details the risks associated with Aboriginal and European heritage as defined in the EIS:

Table 14 Scoping document requirements (Aboriginal and European cultural heritage)

Potential Impact	Risk Assessment			
	<b>Risk</b> (before mitigation)	<b>Likelihood</b> (after mitigation)	<b>Consequence</b> (after mitigation)	Residual risk
Impact to unknown heritage sites during construction	Low	Unlikely	Minor	Very Low

## 3.7. Hazard and Risk

Hazard and risk relates to construction, operation, and decommissioning phases of the proposal.

### 3.7.1. Key findings

The EIS states that the proponent's assessment of hazard, and risk was informed by a number of investigations that were undertaken, including:

- Bushfire Risk Assessment Report for the Territory Battery Energy Storage System (ABPP, 2022) Appendix F10 of the EIS
- Consequence Assessment Plume (Lote Consulting a, 2022) Appendix F11 of the EIS.
- Sitewide Fire Safety Concept Design Statement (Lote Consulting b, 2022) Appendix F12 of the EIS.

Hazard and risk associated with the proposal includes bushfire, battery fire and toxic plume dispersion.

#### **Bushfire**

The Fire Danger Index (**FDI**) is a measure of vegetation dryness, air temperature, wind speed and humidity, and provides an indication of the level of danger of a bushfire on any given day and location. The FDI for the proposal area was determined to be 100 in all directions which is a typical rating for the ACT. In the event of a bushfire, flame contact on equipment could cause external elements to melt, such as exposed cabling and metal components in the battery packs, inverter stations and the electrical substation.

Vertical noise barriers may be required to minimise noise impacts, and the make and model would be selected to meet the requirements of the Noise and Vibration Management Plan as well as being selected with bushfire protection in mind.

Australian standard *AS 3959:2018 Construction of buildings in bushfire-prone areas* was used to calculate the defendable space widths that would be needed around the battery packs, inverter stations and electrical substation, to protect the equipment from radiant heat and flame impact from a bushfire. The EIS states that a 25 m defendable space will be applied along all boundaries of the BESS site, except the eastern boundary for which a 15 m defendable space would be suitable. These widths are larger than the minimum widths required by AS 3959 and would achieve a greater level of protection against catastrophic bushfires. Mitigation measures including fire-fighting access and water supply will be documented in a Bushfire Operations Plan (**BOP**) to be developed as a subplan to the CEMP and EMP, accompanied by an Emergency Response Plan (**ERP**).

### Toxic Plume Dispersion

A battery fire could release toxic airborne gases that may be dispersed into the surrounding area by wind. Three main toxic gases can be released from a lithium-ion battery fire:

- Carbon dioxide
- Carbon monoxide
- Fluorine gases.

Hydrogen fluoride (**HF**) was identified as the key chemical of concern in lithium-ion batteries. Best practice American Emergency Response Planning Guidelines (**ERPG**) were used to inform the Toxic Plume Assessment. The ERPG values identified hazardous concentrations of airborne HF gas, and maps were created to provide an indication of the extent and potential health implications if a toxic plume release was to occur. Battery fires should only be extinguished in accordance with the battery manufacturer's instructions and emergency management plan. Water has been found to increase the formation of HF through the acceleration of chemical reactions so should not be used to combat lithium-ion battery fires. This may be unavoidable in the event of rain or if water is being used to combat adjacent bushfire, thus a 'severe case' scenario has been modelled to demonstrate HF gas dispersion.

The exact composition of the lithium-ion batteries is yet to be confirmed, however the Toxic Plume Assessment analysed two HF gas dispersion scenarios using a typical battery composition:

- Base case: a battery fire that is allowed to run its course with no intervention (fire-fighting) applied (Figure 5 below), and
- Severe case: a battery fire that is exposed to water, e.g. from rain or during fire-fighting (Figure 6 below).

Thermal runaway occurs when the temperature of a battery or cell unexpectedly increases, due to an internal fault or structural damage to the battery. This can cause chemical reactions within the cell that leads to a chain reaction which forms airborne gases, and a very high temperature fire.

The EIS states utility-scale battery systems have a range of in-built mechanisms for maintaining battery temperature and stability and for preventing thermal runaway, such as battery management systems that closely monitor battery charge levels and which control the level of charging and discharging, dedicated ventilation and cooling systems, and automatic controls for shutting down a battery in the event of overheating. The potential for thermal runaway is therefore relatively low,

and primarily associated with manufacturing faults or battery damage (e.g. which occurs during transport). Despite these in-built controls, thermal runaway has been known to occur in lithium-ion batteries. The resulting fire and toxic plume can pose a safety risk to nearby people and ecosystems.

The CEMP and EMP will contain an ERP that details the procedures to be implemented in the event of a battery fire, and will be prepared in consultation with Icon Water, Transgrid, ACT Government agencies, Ginninderry and any other landholders in proximity to the proposal area. The EIS states the Toxic Plume Assessment will be updated during detailed design once the battery supplier and technology have been selected. Standards such as *UL 9540A Test Method* will be used to test the selected battery model to ensure appropriate requirements for the proposal.



Figure 5 Base Case Hydrogen Fluoride Gas Dispersion



Figure 6 Severe Case Hydrogen Fluoride Gas Dispersion

### 3.7.2. Impacts

The potential hazard and risk impacts identified in the EIS were:

- Sparks from construction machinery, vehicles or electrical works, or a fault occurring in the proposal equipment (e.g. battery packs), start a fire, resulting in fire spreading into the surrounding landscape and/or toxic chemicals/fumes being released.
- Maintenance of proposal components is not undertaken appropriately or effectively over the life of the proposal, resulting in increased costs (e.g. remediation) and/or the system not operating efficiently or as designed.

### 3.7.3. Mitigation and avoidance

Error! Reference source not found.**15** details the avoidance measures associated with Hazard and Risk as proposed in the EIS.

#### Table 15 Mitigation measures (Hazard and Risk)

Proposed mitigation measures	Stage of implementation
The proposal will be gravelled which will greatly reduce the risk of ignition from sparks from construction machinery, vehicles, or electrical works.	Construction and operation
All proposal equipment will be regularly serviced in accordance with manufacturer requirements to minimise the possibility of faults or failure and the risk of ignition.	Construction and operation
The proposal will be surrounded by a defendable space and potentially non-combustible noise barriers which will mitigate fire spread from the proposal area.	Construction and operation
Two water tanks (each with a capacity of 300,000 L) connected to fire hydrants will be designed in accordance with the <i>Design</i> <i>Guidelines and Model Requirements for Renewable Energy</i> <i>Facilities</i> AS 2419.1 and as per consultation with ACT F&R.	Construction and operation
<ul> <li>A CEMP will be prepared and include:</li> <li>a BOP prepared as a sub-plan</li> <li>an ERP prepared as a sub-plan in consultation with relevant entities, including providing instructions and training to relevant fire management authorities on appropriate fire-fighting practices for lithium-ion batteries.</li> <li>protocols for communicating to utility owners about work being undertaken in proximity to their utilities.</li> </ul>	Construction

#### 3.7.4. Scoping document requirements

 Table 16 details the risks associated with Hazard and Risk as defined in the EIS.

Table 16 Scoping document requirements (Hazard and Risk)

Potential Impact	Risk Assessment			
	<b>Risk</b> (before mitigation)	<b>Likelihood</b> (after mitigation)	<b>Consequence</b> (after mitigation)	Residual risk
Impacts from fire at the facility (creating bushfire)	High	Remote	Significant/ Catastrophic	Medium
Impact of bushfire to the facility (bushfire prone)	High	Remote	Significant/ Catastrophic	Medium
Impact of potentially toxic chemicals/fumes if the facility catches on fire	High	Remote	Significant/ Catastrophic	Medium
Impact of hazardous waste during construction, operation/maintenance and decommissioning	Low	Unlikely	Minor	Low

### 3.8. Utilities

Utilities related risk can occur during construction, operation, and decommissioning phases of the proposal.

### 3.8.1. Key findings

The EIS states that the potential impacts on utilities have not been the subject of any specialist reports.

Utilities risk associated with the proposal includes electrical hazards and impacts to utilities.

#### Electrical Hazards

The proposal is at risk of causing a fire to start on site as it is an electrical facility. Possible causes of fire ignition include sparks from construction, maintenance of decommissioning machinery/vehicles, and electrical faults arising during commissioning, operation or maintenance. A fire in the proposal area could have widespread biodiversity and water quality impacts if it spreads into the landscape. It could lead to property damage and loss of life in nearby residential areas, rural properties and adjacent industrial sites.

Earth potential rise, step and touch potentials, electromagnetic induction and electromagnetic fields will be considered during the detailed design stage of the proposal as per Scoping Document comments from the UTR, as they are responsible for the safe regulation of utility services. Metallic structures to be investigated would include fencing associated with the proposal, nearby stock fencing, and all other metallic structures near the facility. Due to its proximity to the Stockdill Substation, the earthing design for the proposal will be coordinated with Transgrid to ensure that the facility design adequately addresses the risks of the two proximate earthing systems and any nearby infrastructure.

All security fencing for the proposal will comply with the requirements of ENA DOC 015-2006 National Guidelines for Prevention of Unauthorised Access to Electricity Infrastructure and be built in accordance with the Building Code of Australia under Class 10b. The proposal will be designed in accordance with relevant statutory requirements and standards to ensure that the facility is appropriately grounded, with safety systems designed to protect people who may be standing where any earth potential rise and step and touch hazards exist, such as at the BESS substation, and to ensure that electromagnetic fields are not transmitted to nearby metallic structures such as fences. Relevant standards may include:

- AS 2067:2016 Substations and high voltage installations exceeding 1 kV ac
- AS 3835.1:2006 Earth potential rise Protection of telecommunications network users, personnel and plant: Code of practice
- AS 3835.2:2006 Earth potential rise Protection of telecommunications network users, personnel and plant: Application guide
- AS/NZS 4853:2012 Electrical hazards on metallic pipelines
- Energy Networks Australia (ENA) EG0:2022 Power System Earthing Guide Park 1: Management Principles
- ENA EG1: 2006 Substation Earthing Guide.

#### <u>Utilities</u>

Nearby utilities to the proposal include the Stockdill Substation, high voltage transmission lines, LMWQCC, sewage pipeline, and gas pipeline. These utilities could be impacted directly (e.g. during excavation) or indirectly (e.g. from increased traffic levels) by the proposal. Once constructed, proposal infrastructure could also be damaged by unrelated activities, e.g. work which could be carried out by Transgrid staff on the Stockdill Substation site. The Stockdill Substation and a sewage pipeline are located within the proposal area, with the proposal to be connected directly to the Stockdill Substation via a dedicated transmission line, and the sewage pipeline located more than 35 m below ground level underneath the proposal. The use of vibratory rollers for construction of the site access road may also have vibration impacts on the gas pipeline adjacent to Stockdill Drive. The proposal would likely involve some basic upgrades to Stockdill Drive to ensure that heavy vehicles entering the proposal area can do so safely. This would likely involve pavement widening along the south-westbound approach to the site access road.

Signage will be used to demarcate the location of any underground infrastructure to prevent accidental excavation. All utilities in the vicinity of the proposal area will be marked on site plans and communicated during site inductions. The locations of these utilities will be verified prior to excavation; in particular, the depth and location of the sewage and gas pipelines will be verified. The CEMP and EMP will also include protocols for communicating to the utility owners about work that could impact each of the utilities.

Neoen is currently progressing discussions with Transgrid regarding the point of connection to the substation. Selection of the transmission line route option and configuration (overhead versus underground) will be informed by these discussions.

### 3.8.2. Impacts

The potential utility impacts identified in the EIS were:

- Construction activities result in damage to utilities and other essential infrastructure.
- Unapproved access to site leads to injury or death through contact with electrical equipment.
- Maintenance of proposal components is not undertaken appropriately or effectively over the life of the proposal, resulting in increased costs (e.g. remediation) and/or the system not operating efficiently or as designed.

### 3.8.3. Mitigation and avoidance

Error! Reference source not found.**17** details the avoidance measures associated with impacts to utilities as proposed in the EIS.

#### Table 17 Mitigation measures (Utilities)

Proposed mitigation measures	Stage of implementation
A CEMP will be prepared and include:	Construction
<ul> <li>protocols for communicating to utility owners about</li> </ul>	
work being undertaken in proximity to their utilities.	
Engagement with Transgrid to find opportunities to minimise	Design
impacts to the substation.	
The proposal will be securely enclosed during construction to	Construction and operation
prevent unauthorised access to the site, with a security fence,	
restricted vehicular access, warning signs, security cameras,	
lighting, and battery packs, inverter stations, cabling and high	
voltage equipment enclosed in locked barriers when not in use.	
Should the transmission line be underground, it will be installed	Construction and operation
in accordance with AS/NZS 3000 and AS 2067 to prevent	
accidental excavation and the associated safety hazard.	
Only trained, competent and inducted personnel will be	Operation
authorised to operate and maintain the electrical equipment.	

#### 3.8.4. Scoping document requirements

Table 18 details the risks associated with Utilities as defined in the EIS.

Table 18 Scoping document requirements (Utilities)

Potential Impact	Risk Assessment			
	<b>Risk</b> (before mitigation)	<b>Likelihood</b> (after mitigation)	<b>Consequence</b> (after mitigation)	Residual risk
Impacts to existing/adjacent utilities	Medium	Unlikely	Moderate	Low

## 3.9. Non-potentially significant impacts

The following is a summary of other potential impacts that have been addressed in the EIS but were not identified as matters to be considered by the Scoping Document.

### 3.9.1. Landscape and Visual

The EIS provides an assessment of potential landscape and visual impacts associated with the proposal. It considers impacts associated with vegetation loss, construction and decommissioning activities, and visual amenity of the proposal once operational.

The identified potential landscape character and visual impacts would vary depending on the stage of the proposal and included:

- Loss of visual amenity for local residents and users of the surrounding area.
- Adverse impacts on landscape character.

The EIS states that the potential landscape and visual impacts of the proposal were initially mitigated during the proposal's site selection stage, in which a site was selected to ensure that the proposed infrastructure and construction activities would not be prominent in the landscape. This also included the co-location of the proposal with similar industrial developments. This is reflected in the low impact ratings for the landscape character and visual impacts.

Impacts will be further mitigated during construction and decommissioning through the implementation of an industry best practice CEMP and EMP respectively and will include visual barriers during construction and decommissioning stages. Lighting would be directed towards the proposal area and away from sensitive receptors. Measures for reducing noise emissions associated with battery operation controls and housing will be considered e.g. noise barriers. Neoen will explore a range of artwork options and will consider ways in which the artwork could compensate for visual impacts of the proposal.

### 3.9.2. Noise and Vibration

The EIS provides an assessment of potential impacts associated with noise and vibration of the proposal, including impacts to both people and property during construction and operational stages. Potential impacts to ecological values from noise and vibration are also considered.

Potential noise and vibration impacts of the proposal include:

- Reduced local amenity from increased noise and vibration levels.
- Community complaints.
- Cumulative noise and vibration impacts as a result of the proposal and other developments in the region.

A Noise and Vibration Impact Assessment (**NVIA**) prepared by WSP (August 2022) was included with the EIS (see **Appendix 08**).

To assist the management of noise impacts, a NVMP is recommended to be developed for the proposal. The NVMP would identify strategies for works required both during and outside daytime hours.

### 3.9.3. Traffic

The EIS includes an assessment of potential impacts to traffic within the local area as a result of construction, maintenance and decommissioning of the proposal. Cumulative impacts associated with traffic disruption on the local road network have also been assessed.

A traffic investigation was undertaken and is documented in the Traffic Impact Assessment (TIA) Report (Quantum Traffic, 2022) attached at **Appendix F09**.

Potential traffic impacts of the proposal, as identified in the risk assessment are summarised below:

- Environmental damage caused by uncontrolled site access of construction vehicles.
- Traffic congestion on local roads.
- Cumulative traffic congestion impacts occurring in conjunction with other developments.
- Traffic disruption and safety issues from inadequately planned traffic management.

The EIS notes that expected traffic increases during construction, operation and decommissioning of the proposal would be able to be comfortably accommodated on Stockdill Drive, and any minor traffic disruption impacts will be further mitigated through the implementation of a Traffic Management Plan (**TMP**). The TMP will be a sub-plan to the CEMP/EMP and involve standard traffic controls such as:

- Notifying local residents and the LMWQCC of potential traffic disruptions, providing details such as the expected dates and timing of the disruption and the nature of the disruption (e.g. lane closure on Stockdill Drive).
- Identification of the approved heavy vehicle access route to be used by heavy vehicles.
- Demarcation of the site access road and internal tracks to be used by proposal vehicles.
- Controls for minimising traffic-related noise, such as decreasing vehicle speeds in the vicinity of residential areas and avoiding compression braking and the use of air brakes near residential areas.

The TMP would be implemented in conjunction with a SWMP to manage dust and soil impacts associated with vehicle movement through the proposal area. For example, all loads will be covered to ensure that no materials or dust are lost from moving vehicles, and rumble bars and a wheel wash will be installed at the site access point off Stockdill Drive to ensure vehicles are clean before entering and leaving the proposal area.

## 3.9.4. Climate Change and Air Quality

The EIS addresses potential adverse and beneficial climate change and air quality impacts of the Proposal and details the mitigation and management measures for addressing the adverse impacts.

A qualitative assessment has been undertaken to assess potential air quality and climate change impacts associated with the proposal. Potential climate change and air quality impacts of the proposal, as identified in the EIS risk assessment include:

• Reduced air quality from construction dust and vehicle/machinery emissions.

• Contribution to climate change due to greenhouse gas emissions.

The EIS notes that dust emissions would likely be generated during construction and decommissioning but are unlikely to occur during operation as the proposal would be entirely gravelled with no exposed soil. If not properly managed, dust emissions can cause serious health issues. Dust emissions also have the potential to impact on nearby ecosystems and can cause water quality impacts through increased sedimentation of nearby waterways.

Vehicle exhaust emissions and traffic-related air pollution has been associated with a wide range of adverse health effects. Vehicle movements and the operation of machinery during construction and decommissioning of the proposal would lead to small, localised increases in greenhouse gas emissions. These emissions would contribute to global warming, particularly from heavy vehicles used for moving materials such as spoil and concrete and for transporting and installing the heavy equipment (e.g. battery packs, inverter stations and transformers).

The EIS notes that an Air Quality Control Plan (**AQCP**) will be implemented as a sub-plan to the CEMP/EMP to manage dust and vehicle emissions during construction and decommissioning of the proposal.

Neoen's Sustainability Framework outlines broader ambitions and priorities for improving the sustainability of its operations, including reducing greenhouse gas emissions by implementing measures to minimise emissions including procuring local construction services and materials, energy-efficient work practices, limiting vegetation clearance etc.

### 3.9.5. Materials and Waste

The EIS addresses on-site material use and waste generation associated with construction, operation and decommissioning of the proposal. It details the waste management strategies to be implemented in accordance with the waste management hierarchy (avoid, reduce, reuse, recycle), drawing on the mitigation and management measures discussed in relation to water quality, soils and contamination.

A qualitative assessment has been undertaken to assess potential resource use and waste generation impacts associated with the proposal. Likely waste and resource streams were identified for each stage of the proposal. Appropriate mitigation and management measures were then identified in accordance with the waste management hierarchy.

Potential material usage and waste impacts of the proposal include:

- Environmental damage from inadequately stored or managed waste.
- High volumes of waste from excessive material usage.
- Improper or incomplete site clean-up.

The proposal would generate a range of different waste types including spoil, green waste, packaging, human rubbish and waste, and equipment. If not appropriately stored and managed, waste generated by the proposal could have a range of environmental and health impacts, including:

• potential impacts to the ecosystem due to spoil or green waste being transported by stormwater or wind into nearby waterways or sensitive vegetation.

- Rubbish from food or equipment packaging impacting water quality (of groundwater or surface water bodies), vegetation condition or soil condition if transported off site by stormwater or wind.
- Human waste impacting water quality (of groundwater or surface water bodies, vegetation condition or soil condition if transported off site by stormwater.
- Equipment that is no longer operational could also impact water quality (of groundwater or surface water bodies), vegetation condition or soil condition if not removed from site or stored in a dedicated bunded area, if contaminants are transported off site via stormwater or leach into the soil and groundwater.

Some waste generated by the proposal will be able to be reused and recycled in accordance with the waste management hierarchy, but other waste will need to be disposed of to landfill.

The mitigation and management measures to reduce materials and waste impacts proposed in the EIS include preparing an industry best practice CEMP that will include:

- a WMP to address the storage and stockpiling of raw materials, transport of materials to site and disposal of materials,
- a CSMP that sets out procedures for the transportation, storage and management of fuels and chemicals to be used during construction,
- a SWMP for mitigating and managing soil and water impacts including measures to minimise and manage erosion and sedimentation and controls for the containment of sediment-laden runoff

The CEMP to be implemented will require waste to be managed in accordance with the ACT waste management hierarchy.

Neoen will provide instructions and training to construction staff on appropriate waste management procedures as detailed in the CEMP and provide instructions and training to maintenance staff on appropriate waste management procedures as detailed in the EMP.

### 3.9.6. Socio-economic

The EIS provides an assessment of potential social and economic impacts of the proposal. It considers impacts that are solely related to social and economic matters as well as impacts relating to local amenity that have been assessed elsewhere in this EIS. Both adverse and beneficial impacts have been considered.

A desktop review was undertaken to identify existing socio-economic conditions in the proposal area and surrounding region. The impact assessment also considered community and stakeholder engagement activities undertaken for the proposal as well as a range of other investigations, including Noise and Vibration Impacts, Air Quality Assessment, Landscape and Visual Impact Assessment and Traffic impact Assessment which were completed to assess potential amenity impacts (please refer above sections).

Potential adverse socio-economic impacts of the proposal include:

- Unanticipated public concerns or comments received during the EIS process result in project issues and delays.
- Community interest or perceptions of the proposal are affected by political interest or media attention.
- Loss of agricultural land.
- Loss of local amenity.

The proposal also has the potential for a range of beneficial socio-economic impacts associated with the following:

- Job creation, primarily during construction and decommissioning.
- Increased electricity network reliability.
- Community investment opportunities.

The EIS notes that measures for mitigating and managing potential adverse socio-economic impacts and for enhancing beneficial impacts will be implemented throughout the lifetime of the proposal and will include:

- Targeted stakeholder engagement which will involve a range of engagement activities with the community, early in the proposal's development, depending on the stage of development (e.g. site selection, planning and approvals, construction) to identify any community concerns at a time when any rework to the proposal design or specialist technical studies will have minimal impacts to the development timeline.
- The stakeholder engagement strategy has also been developed using a needs-based approach that identifies appropriate engagement mechanisms for each stakeholder group relevant to the proposal.
- The proposal has been designed to minimise its construction footprint, thereby minimising any resultant financial loss due to loss of grazing land. The proponent has a financial arrangement with the landholder to compensate them for use of the proposal area for the lifetime of the proposal, which will be restored to grazing land in consultation with the landholder once the proposal ceases operation.
- Potential impacts to local amenity arising from increased levels of noise, vibration, dust emissions, lighting and traffic will be mitigated and managed through implementation of sub-plans to the CEMP and EMP. Prior to construction of the proposal, sensitive receptors will be identified to inform avoidance and mitigation measures as detailed in these subplans.
- A Local Participation Plan (LPP) is to be developed prior to proposal construction to identify existing capabilities within the local community (ACT region) and to maximise local employment and sourcing for the proposal's needs. The LPP will be a live document that will be updated progressively during development and will also be informed by changing circumstances, industry and government feedback and ongoing improvements.
- An Indigenous Participation Plan (IPP) will be developed in collaboration with the local Aboriginal community and representatives of the four ACT RAOs and will identify the proposal's engagement, participation and employment approach and objectives in relation to First Nations peoples. The IPP will encapsulate Ngunnawal interests and priorities to set mutually agreed arrangements for collaboration and will ensure that matters relating to

preservation and management of Country, cultural heritage protection and management, social and economic opportunities, and interests, are all given adequate and equal standing within the Plan. The IPP will also aim to bring about direct employment, procurement, and training opportunities for First Nations people throughout the proposal's lifetime.

## 3.10. Conclusion of impact assessment

The supporting studies and comments from relevant entities provide sufficient information on the impacts of the proposal identified above.

# 4. Statutory and Policy considerations

A number of ACT and Commonwealth policies and legislative requirements were considered in the preparation of this EIS as outlined below.

### 4.1. Planning and Development Act 2007

Schedule 4 of the PD Act lists proposals requiring an EIS by activity and/or by degree of area or processes. The proposal falls under the impact track, as it meets the requirements listed in Schedule 4, Part 4.2 item 2, Part 4.3 item 1 and Part 4.3 item 2 of the PD Act.

The Scoping Document (Application Number: EIS 202100027) for the Territory Battery was issued by the Authority on 17 September 2021 and provides requirements for information that is to be provided in the EIS to be submitted for planning approval.

The EIS has been prepared in a manner that is consistent with the Scoping Document.

### 4.2. Planning and Development Regulation 2008

The EIS must be prepared in accordance with the PD Regulation. Section 50 of the PD Regulation outlines the requirements for the preparation of an EIS in the ACT.

The requirements of the PD Regulation have been met in preparation of the EIS.

### 4.3. Environment Protection Act 1997

The *Environment Protection Act 1997* (**EP Act**) provides a framework for regulating polluting activities and protecting the environment in the ACT. The proponent has provided sufficiently detailed information in relation to the EP Act. Further advice will be provided in relation to the DA.

#### 4.4. Nature Conservation Act 2014

The NC Act establishes a formal process for the identification and protection of threatened species and ecological communities in the ACT region. The NC Act requires the Conservator of Flora and Fauna to prepare an action plan in response to each declaration of a threatened species, ecological community, or threatening process.

### 4.5. Tree Protection Act 2005

Trees of exceptional value are protected under the ACT *Tree Protection Act 2005* (**TP Act**). The trees protected by this Act are provided for in the ACT Tree Register. The EIS states that the proposal is not located within a built-up urban area as defined under the TP Act and as such, trees within the proposal area are not regulated by the TP Act. A vegetation assessment was prepared in accordance with the TP Act as it uses a thorough tree assessment methodology.

### 4.6. Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)

Under the EPBC Act, a referral to the Commonwealth Minister for the Environment and Water is required, where an action is:

- likely to have a significant impact on MNES; or
- likely to have a significant impact on the environment in general (for actions by Commonwealth agencies or action on Commonwealth land) or the environment on Commonwealth land (for actions outside Commonwealth land).
The proposal was referred to the former DAWE (EPBC 2021/8884) due to the potential for a significant impact on BGW which is listed as a threatened ecological community. On 22 March 2022, it was determined that the proposal was a controlled action. The proposal has been assessed in accordance with the Commonwealth and ACT Government's bilateral assessment agreement.

## 4.7. ACT Climate Change Strategy 2019-2025

The ACT Climate Change Strategy 2019-2025 (the Strategy) sets out the ACT Government's action plan to respond to climate change and its effects, and manage the impacts on people, infrastructure, and services.

The EIS documentation has assessed the potential impacts of climate change and included an assessment of how the proposal will support the six key priorities of the Strategy.

#### 4.8. Canberra's Living Infrastructure Plan: Cooling the City (2019)

Canberra's Living Infrastructure Plan: Cooling the City (2019) (Living Infrastructure Plan) sets out the ACT Government's commitment to maintain and improve living infrastructure in Canberra.

The EIS documentation states the proposal is not inconsistent with the actions outlined in the Living Infrastructure Plan.

#### 4.9. Territory Plan 2008

The Territory Plan is the key statutory planning document in the ACT, providing the policy framework for the administration of planning in the ACT. The purpose of the Territory Plan is to manage land use change and development in a manner consistent with strategic directions set by the ACT Government, Legislative Assembly and the community. It must not be inconsistent with the National Capital Plan.

The Territory Plan includes a statement of strategic directions, a map (the Territory Plan Map) which sets out zones and precincts in the ACT, objectives and development tables applying to each zone, and a series of general, development and precinct codes.

Upon completion of the EIS, the proposal will be subject to a DA which will include an assessment against the relevant requirements of the Territory Plan.

## 4.9.1. Territory Plan Statement of Strategic Directions

The Statement of Strategic Directions sets out principles to guide planning and development of the ACT. These include principles relating to sustainable development, environmental, economic, and social sustainability as well as spatial planning and urban design principles.

The key principles in the statement of strategic directions include a balanced approach to environmental, economic, and social impacts to ensure sustainable practices.

The EIS documentation states that the proposal is consistent with the broad objectives of the Territory Plan as it will allow for the supply of renewable energy and management of rural areas by pursuing economic, social and environmental objectives.

## 4.9.2. Territory Plan codes

Various codes apply under the Territory Plan and are considered during the assessment of DAs. Upon completion of the EIS, the proposal will be subject to a DA where the development will be assessed against the relevant Territory Plan codes.

Other policies, outside the requirements of the scoping document, have been addressed in the EIS. These were included in the EIS by the proponent as part of consideration of general government policies.

#### 4.10 ACT Planning Strategy

The ACT Planning Strategy provides long-term planning policy and goals to promote sustainable development, consistent with the social, environmental, and economic aspirations of the people. The EIS states that the proposal is considered to be consistent with the general aims and objectives of the ACT Planning Strategy.

## 4.11 National Capital Plan

The object of the National Capital Plan (**NCP**) is to ensure that Canberra and the Territory are planned and developed in accordance with nationally significant planning objectives. The NCP provides guidance for the planning, design and development of Designated Areas and other areas identified in the NCP with special requirements.

The proposal is not located within a Designated Area, so the proposal would not require a Works Approval from the National Capital Authority (**NCA**).

#### 4.12 Other policies addressed in the EIS

Other policies, outside the requirements of the Scoping Document, have been addressed in the EIS. These were included in the EIS by the proponent as part of consideration of general government policies.

# **5** Other considerations

Once finalised by the ACT Minister for Planning, this report will be provided to the Commonwealth Minister (or delegate) to determine whether or not to approve the project under the EPBC Act.

## 5.10 Principles of ecologically sustainable development

The following ecologically sustainable development principles have been considered by the Authority and throughout the EIS. It is considered that the principles have been addressed by the information provided, to inform decision-making against economic, environmental, social, equity, and conservation tenets.

## 5.10.1 Economic, environmental, social and equitable considerations

The long-term and short -term economic, environmental, social, and equitable considerations have been considered by the Authority in the preparation of this assessment report. The Authority is satisfied that information relating to the above considerations, and the cumulative impacts, have been provided in the EIS.

## 5.10.2 The precautionary principle

The precautionary principle can generally be summarised as "where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation" (Principle 15 of the 1992 Rio Declaration).

The precautionary principle has been addressed in the EIS. Where detail has been identified as unknown, the proponent has undertaken further studies or included analysis on any additional studies needed, and proposed mitigation measures. The EIS provides details of potential impacts and proposes mitigation measures to ensure there is certainty in the environmental outcome.

## 5.10.3 The principle of inter-generational equity

The principle of inter-generational equity has been addressed in the EIS. The EIS has considered the historical impacts of the site and its development on current and future generations and seeks to promote the re-use of the site for development of an asset that that would benefit future generations.

## 5.10.4 The conservation of biological diversity and ecological integrity

The conservation of biological diversity and ecological integrity has been addressed in the EIS. The EIS described the historical disturbance of the site. The proponent has proposed an offset that would improve BGW habitat and manage it effectively for conservation and landscape connectivity. The proposal has been developed using the principles of the mitigation hierarchy, avoiding impacts where possible, which allows the proposal to avoid direct impacts to PTWL habitat.

## 5.10.5 Improved valuation, pricing and incentive mechanisms

Improved valuation, pricing, and incentive mechanisms have been considered. The EIS addresses these through discussion of how the proposal is driven by the need to facilitate the global uptake of renewable energy. The proposal needs to be located next to a transmission substation with capacity for a BESS, and the Transgrid Stockdill Substation is the only available option in the ACT. By selecting this site, the electrical connection from the

facility would minimise ground disturbance and transmission line length, thereby minimising associated environmental, social and economic impacts.

## 5.11 Proponent's environment history

The EIS states that Neoen has no existing record of having been the subject of any prosecution or civil proceeding under ACT, State, Territory, Commonwealth or international environmental or natural resources legislation which is relevant or material to this EIS. The executive officers of Neoen SA (including its subsidiary Neoen Australia Pty Ltd) have also not been subject to any relevant prosecution or civil proceeding. All current board members of both Neoen SA and Neoen Australia Pty Ltd have no history of environmental issues.

# 6 Recommended conditions

After considering the revised EIS, the Authority recommends DA considerations to assist with the avoidance, mitigation and offsetting of adverse environmental impacts, as outlined in **Table 19**.

Any DA related to the completed EIS must include the DA considerations as part of the application. In deciding a DA in the Impact Track, the Authority must consider matters raised in the completed EIS and EIS assessment report.

The information gathered through the EIS process is used to assist in the decision-making process for an Impact Track DA. Any matters highlighted in the EIS process as being critical for the decision-making process will need to be clearly addressed as part of the Impact Track DA.

Table 19 Draft Conditions of Development Approval for the Territory Battery

No.	Condition contents	Endorsement/approval	Construction stage	Draft condition of approval	
1	General	Planning and Land Authority	All works	All works must be consistent with the mitigation measures in the Territory Battery Revised Environmental Impact Statement, prepared by Umwelt (Australia), dated 15 September 2023 (the EIS).	
2	General	Planning and Land Authority	All works	Where mitigation measures cannot be incorporated into detailed design, each remaining mitigation measure must be outlined in a CEMP as required by Condition 7 below.	
3	Environmental impact and detailed design	Planning and Land Authority	During construction	The proponent must not clear more than 6.19 ha of White box – Yellow Box Blakely's Red Gum Grassy Woodland and Derived Native Grassland.	
4	Environmental impact and detailed design	Planning and Land Authority	During construction	The proponent must not clear more than 0.5 ha of Pink-tailed Worm-lizard ( <i>Aprasia parapulchella</i> ) habitat.	
5	Environmental impact and detailed design	Planning and Land Authority	During construction	The proponent must not clear outside of the approved area of clearance as identified as the proposal area within Figure 5.7 of the EIS.	
6	Environmental impact and detailed design	Planning and Land Authority	During construction	The detailed design must be consistent with the mitigation measures, conditions, and offset proposed in the EIS.	
7	DA Documentation	Planning and Land Authority	Development Application	As part of any subsequent DA relying on the EIS, a document must be provided detailing how the recommended mitigation measures in the EIS (Table 12) and the conditions in this report (Table 19) have/will be met.	
8	Construction Environmental	Planning and Land Authority, Transport	Prior to construction	An industry best practice CEMP must be prepared and submitted to the Planning and Land Authority for endorsement. The CEMP must outline the	

Management Plan (CEMP)	Canberra City Services, Environmental Protection Authority, Conservator of Flora and Fauna, ACT Fire &	construction conditions/methods and temporary environmental protection measures to manage the impact of construction activities, consistent with the EIS and entity requirements. The CEMP must include the mitigation measures proposed in the EIS and any relevant management sub-plans including, but not limited to:
	and Fauna, ACT Fire & Rescue	<ul> <li>Not limited to:</li> <li>Soil and Water Management Plan (SWMP)</li> <li>Noise and Vibration Management Plan (NVMP)</li> <li>Bushfire Operations Plan (BOP)</li> <li>Emergency Response Plan (ERP)</li> <li>Waste Management Plan (WMP)</li> <li>Chemical Storage and Management Plan (CSMP) (including Remediation Action Plan (RAP)).</li> <li>Flora and fauna management</li> <li>Reporting unapproved impacts on MNES to EPSDD</li> <li>Weed management</li> <li>Erosion and sediment control</li> <li>Contamination Unexpected Finds Protocol</li> <li>Health and Safety Protocol for works at AEC's</li> <li>Dust and air quality management</li> <li>GHG emissions from construction machinery</li> <li>Environment Protection Agreement with the EPA</li> <li>Heritage Management</li> <li>Surface water management</li> <li>The CEMP must indicate the impact of construction, heavy vehicle</li> </ul>
		movements during the construction, and conflict with vulnerable road users and potential environmental impact as a result.
		A Soil and Erosion Control Plan must be submitted to TCCS to assess any possible impact on the surrounding land uses.

				The applicant is required to demonstrate noise from the proposed development complies per the <i>Environment Protection Regulation, 2005</i> . The CEMP must reference the National Light Pollution Guidelines for Wildlife for all works and provide assurance that the guidelines will be followed for the project.
9	Pre-clearance surveys	Conservator of Flora and Fauna	Prior to construction	Pre-clearance surveys will be undertaken by a suitably qualified ecologist following consultation with the Conservator of Flora and Fauna.
10	Environmental Management Plan (EMP)	Planning and Land Authority	Prior to operation, post construction	<ul> <li>An industry best practice EMP must be prepared and submitted to the Planning and Land Authority for endorsement. The EMP must outline the conditions/methods for temporary environmental protection measures to manage the impact of operational activities, consistent with the EIS and entity requirements. The EMP must include the mitigation measures proposed in the EIS and any relevant management sub-plans including, but not limited to:</li> <li>SWMP</li> <li>NVMP</li> <li>WMP</li> <li>CSMP (including RAP).</li> </ul>
11	Tree removal	Planning and Land Authority	During construction	Trees removed as part of the proposal must be harvested for off-site reuse as coarse woody debris in the offset site.
12	Detailed design	Planning and Land Authority	Prior to construction	Detailed design will avoid and minimise impact through positioning of the transmission line and the access road.
13	Detailed design	Planning and Land Authority	Prior to construction	Detailed design will consider ecological values and avoid habitat fragmentation.
14	Rehabilitation works	Proponent	Post construction, post operation	Any biodiversity rehabilitation is to be undertaken by a suitably qualified and experienced professional.

15	Rehabilitation works	Proponent	Post construction, post operation	Rehabilitation works must include restoration of vegetation in construction laydown areas and any other areas decommissioned or no longer required for the project.	
16	Gravelling of proposal site	Proponent	During construction	The proposal is to be gravelled to reduce the risk of ignition from sparks from construction machinery, vehicles, or electrical works.	
17	Servicing of equipment	Proponent	During construction, operation and decommissioning	All proposal equipment will be regularly serviced in accordance with manufacturer requirements to minimise the possibility of faults or failure ar the risk of ignition. Only trained, competent and inducted personnel will be authorised to operate and maintain the electrical equipment.	
18	Defendable space, noise barrier and security	Conservator of Flora and Fauna, ACT Parks and Conservation Service, ACT Fire & Rescue	During construction and operation	The proposal will be surrounded by a defendable space and potentially non- combustible noise barriers which will mitigate fire spread from the proposal area. The proposal will be securely enclosed during construction to prevent unauthorised access to the site, with a security fence, restricted vehicular access, warning signs, security cameras, lighting, and battery packs, inverter stations, cabling and high voltage equipment enclosed in locked barriers when not in use. Any barrier, if required, will need to be designed in consultation with the ACT Parks and Conservation Service to ensure minimised impact to faunal movement and habitat connectivity.	
19	Water tanks for fire fighting	ACT Fire & Rescue	During construction and operation	Two water tanks (each with a capacity of 300,000 L) connected to fire hydrants will be designed in accordance with the Design Guidelines and Model Requirements for Renewable Energy Facilities AS 2419.1 and as per consultation with ACT Fire & Rescue. The water tanks for fire-fighting and consumption are to be clearly labelled at their outlets.	

20	Asset Protection Zones	ACT Fire & Rescue	Prior to construction	Asset Protection Zones within the development footprint are to be managed by the proponent, and must consider ecological constraints, maintenance requirements and responsibilities, and be defined and agreed to in perpetuity. Country Fire Authority Design Guidelines and Model Requirements for Renewable Energy Facilities should be used as guidance.	
21	Underground transmission line	Planning and Land Authority	During construction	Should the transmission line be underground, it will be installed in accordance with AS/NZS 3000 and AS 2067 to prevent accidental excavation and the associated safety hazard.	
22	Erosion and Sediment Control Plan (ESCP)	Planning and Land Authority	During construction, operation and decommissioning	An ESCP will be prepared and will detail the design standards for the drainage, erosion and sediment controls.	
23	Water Sensitive Urban Design (WSUD)	Planning and Land Authority	During construction, operation and decommissioning	Management of site generated stormwater and site discharge will be in accordance with the principles and requirements of the Water Sensitive Urban Design (WSUD) Guidelines.	
24	Unanticipated Discovery Protocol (UDP)	ACT Heritage Council	During construction	An Unanticipated Discovery Protocol for managing impacts to any previously unidentified Aboriginal cultural heritage places or items that are found during construction will be implemented.	
				Construction personnel will be trained in the unanticipated discovery procedure.	
				The UDP must identify that the discovery of Aboriginal places and objects must be reported to the Council as soon as possible, and within five working days as per Section 51 of the Heritage Act 2004.	
				The Unanticipated Discovery Protocols included in the EIS must be followed during all works and incorporated into the project's CEMP (where applicable).	

25	Contamination survey	Planning and Land Authority	Prior to construction	A pre-construction assessment of the construction laydown area will be undertaken to confirm the contamination status of the area prior to construction commencing.	
26	Clean fill and spill kits	Planning and Land Authority	During construction	Only certified clean fill will be imported to site, if required, and spill kits will be located on site during construction.	
27	Offset Management Plan	Planning and Land Authority	In perpetuity	An Offset Management Plan (OMP) will be prepared by a suitably qualified specialist and include detail of how the offset is to be managed, including reporting and monitoring requirements. The completed Biodiversity Offset Strategy will be used to inform the OMP.	
28	Tree Protection Zone	Transport Canberra City Services	Prior to construction	The proposed 6m wide access road should be routed to avoid existing trees on the verge. All site works will be outside of the Tree Protection Zone and in accordance with AS4970.	
29	Landscape Management and Protection Plan (LMPP)	Transport Canberra City Services	Prior to construction	Trees are to be managed with strict protocols outlined in an LMPP with Tree Management Notes. LMPP approval must be obtained from the Development Coordination Branch TCCS. This plan is to be implemented before the commencement of works, including earthworks on the site and is to be in accordance with TCCS Guidelines for the Protection of Public Landscape Assets Adjacent to Development Works.	
30	Icon Water infrastructure	Icon Water	Prior to construction	Any work(s) that is likely to impact on Icon Water infrastructure must have Icon Water acceptance prior to any work being undertaken.	
31	Building Approval	Icon Water	Prior to construction	The works require Building Approval from Icon Water, this approval is separate to and additional to, approval of the DA.	
32	Icon Water engagement	Icon Water	Prior to construction	The applicant must engage actively with Icon Water during later stages of the project with regards to bushfire protection, HF gas, and emergency planning. Once a brand of battery pack is chosen, these details/specifications should be provided to Icon Water.	

33	Sedimentation ponds	Health Protection service	Prior to construction	The design and construction of any sedimentation ponds must minimise the potential for them to cause an insanitary condition (local mosquito nuisance) under the <i>Public Health Act 1997</i> .
34	Further information	Conservator of Flora and Fauna	Prior to construction	Further information on potential impacts to <i>Zornia dyctiocarpa</i> is to be provided at the DA stage. It is listed as a protected native species, which is a trigger for an EIS at Schedule 4 of the <i>Planning and Development Act 2007</i> .
35	Provision of Service Operating Certificate	Utilities Technical Regulator	Prior to operation	A Provision of Service operating certificate from the Utilities Technical Regulator will be necessary to provide grid services after successful testing and commissioning of the BESS.

# 7 Recommended action on this EIS

Having regard to the documentation and information provided, the Authority has assessed the Territory Battery revised EIS as meeting the requirements of Chapter 8 of the PD Act.

It is the Authority's assessment that the revised EIS has provided sufficient information to the ACT Government and the community to allow an informed evaluation of potential environmental impacts which could be attributed to the Territory Battery proposal. The applicant, Umwelt, on behalf of Neoen, has proposed a range of avoidance, mitigation and management measures to reduce, avoid and offset potential environmental impacts arising from construction and operational activities associated with the project. It is considered that any potential adverse impacts can be adequately addressed by implementing these measures and the DA conditions specified in this report.

The influence of construction activity associated with the Territory Battery, and the subsequent environmental performance attributable to its ongoing operation, will be monitored by a variety of public agencies; particularly the EPA, the Authority, TCCS, the Conservator of Flora and Fauna, UTR and ACT Fire & Rescue.

In regard to MNES, the proponent has provided sufficient information to enable the Commonwealth Government DCCEEW to commence its statutory approvals decision making process under the EPBC Act.

The Authority's recommendation is that the Minister need take no action in relation to the revised EIS. The Minister may, however, decide to present the revised EIS to the Legislative Assembly. This action does not affect an EIS being complete in accordance with section 209 of the Act.

The Minister has the following options under the PD Act in relation to the EIS:

- **Option 1** take no action on the EIS. This option applies if the Minister decides not to establish an Inquiry Panel and decides not to present the EIS to the Legislative Assembly.
- **Option 2** not establish an inquiry panel but present the EIS to the Legislative Assembly. The EIS process is complete upon the Minister's decision not to establish an Inquiry Panel.
- **Option 3** establish an inquiry panel to inquire about the EIS. The EIS process will be complete at the finalisation of the inquiry panel report.

Under s 228 of the PD Act, the Minister must decide to establish an inquiry panel within 15 working days of receiving this assessment report.

For all options above, the Minister may still choose to present the EIS to the Legislative Assembly under s 227 of the PD Act. However, this does not affect whether the EIS process is considered complete (see s 209(2) of the PD Act).

Appendix 1 – Final scoping document





Environment, Planning and

Sustainable Development

Under Division 8.2.2 of the Planning and Development Act 2007

APPLICATION NUMBER: 2021000	27	DATE OF THIS N	OTICE: 17 September 2021		
DATE LODGED: 6 August 2021					
<b>PROJECT:</b> Territory Battery Energy Storage System (BESS) involving construction and operation of a large-scale battery energy storage system of up to 300 megawatts and associated infrastructure and underground cabling connecting the BESS substation to the TransGrid Stockdill Substation.					
<b>IMPACT TRACK TRIGGER:</b> Schedule 4, Part 4.3, Item 1 and Item 2, of the <i>Planning and Development Act 2007</i>					
BLOCK: 1634 & 1635	SECTION: N/A		DISTRICT: Belconnen		
ADDRESS: Stockdill Drive Belconnen, ACT					
PROPONENT/APPLICANT: Neoen Australia Pty Ltd					
LESSEE OF BLOCK 1634: Graeme and Glenis Trevaskis					
LESSEE OF BLOCK 1635: Electricity	Transmission Mir	nisterial Holding Co	orporation (c/o TransGrid)		

## **SCOPING DOCUMENT**

The planning and land authority (the Authority) within the Environment, Planning and Sustainable Development Directorate received your application under section 212(1) of the *Planning and Development Act 2007* (the PD Act) for Scoping of an Environmental Impact Statement (EIS) for the above proposed development. Pursuant to section 212(2) of the PD Act, the Authority has:

- a) Identified the matters that are to be addressed by an EIS in the relation to the development proposal; and
- b) Prepared this written notice (the *scoping document*) of the matters.

On 22 March 2021, a delegate of the Commonwealth Minister for Agriculture, Water and the Environment determined the proposed action to be a controlled action under section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

At the time of the controlled action decision, it was also determined that the assessment would be undertaken in accordance with Schedule 1 of the Bilateral agreement made under section 45 of the EPBC Act relating to environment assessment (2014).

This will enable the Authority to assess the EIS under both Commonwealth and ACT Legislation. The EIS will require approval from the Authority and Commonwealth Minister for Agriculture, Water and the Environment under part 9 of the EPBC Act before it can proceed.

*NB: The EIS <u>must</u> conform to the requirements of this scoping document. This document does not indicate approval or support in any way, nor does it indicate approval in principle.* 

GPO BOX 1908, Canberra ACT 2601



Environment, Planning and Sustainable Development Under Division 8.2.2 of the Planning and Development Act 2007

## TERM OF SCOPING DOCUMENT

Pursuant to section 213(2) of the PD Act, the proponent must give the draft EIS to the Authority 18 months from the day the Authority gives this scoping document to the applicant.

## FORM AND FORMAT OF EIS

The Authority requires that the proponent engage a suitably qualified independent consultant to prepare an EIS, OR the proponent submits, with the draft EIS, an independent review of the draft EIS undertaken by a suitably qualified consultant. The EIS must be in the following form and format:

- The EIS must be prepared in accordance with section 50 of the *Planning and Development Regulation 2008.*
- The EIS must be written in plain English and avoid the use of jargon as much as possible.
- The EIS is required to be provided in the same structure as described in this Scoping Document as closely as possible.
- A table that cross-references the EIS to the scoping document must be included in the EIS submission.
- The report must reference any figures or supporting information used to the supporting appendix and page number, table or figure.
- Additional technical detail, including relevant data, technical reports and other sources of the EIS analysis must be provided in appendices.
- A redacted version (in addition to the full version) of any reports containing restricted or sensitive information must be provided for public notification, such as a Cultural Heritage Assessment report.
- Maps, diagrams and other illustrative material should be included in the EIS to assist readers to interpret information.
- The EIS document must be sized A4 with maps and drawings in A4 or A3 format.
- The proponent must supply a copy of all draft EIS and revised EIS documents in electronic formats for circulation and web posting. These are to be supplied by email, USB, or another agreed method.
- Digital files must not exceed 20 MB each.

## **COST OF PREPARATION OF EIS**

The proponent is responsible for the preparation of the draft and revised EIS and any related applications and associated costs. This includes additional copies of the draft and revised EIS and other associated documents as required by the Authority from time to time.

## **NEXT STEPS**

The proponent is now required to prepare a document (a *draft EIS*) that addresses each matter raised in the scoping document for the proposal within 18 months from the day the Authority gives the scoping document to the applicant. Once the draft EIS has been accepted for lodgement, a public notification fee is payable in order for notification, referrals and assessment to commence. After the notification period has closed, the Authority will provide comments and any public representations received for the proponent to address in a *revised EIS*, and any further instructions on the application.

GPO BOX 1908, Canberra ACT 2601





Environment, Planning and Sustainable Development

# **Scoping Document**

Under Division 8.2.2 of the Planning and Development Act 2007

If you have any queries about the requirements outlined in this scoping document, please contact Frances Jacomb to arrange a suitable time to discuss.

**Delegate of the planning and land authority** George Cilliers Executive Group Manager Statutory Planning Division Environment, Planning and Sustainable Development Directorate

**Contact** Frances Jacomb Development Assessment Officer Impact Assessment Environment, Planning and Sustainable Development Directorate E: frances.jacomb@act.gov.au T: (02) 6205 7248

GPO BOX 1908, Canberra ACT 2601

www.planning.act.gov.au

## **GENERAL REQUIREMENTS FOR THE EIS**

#### 1. Cover Page

The cover page must clearly display the following:

- The name of the proposal (project title)
- The block identifier(s) and street address for the proposal
- The date of the preparation of the document
- Full name and postal address of the designated proponent
- Full name and postal address of the designated applicant
- Name and contact details of the person/organisation who prepared the documents (if different to the above)

#### 2. Glossary

Provide a glossary of technical terms, acronyms and abbreviations used in the EIS.

#### 3. Executive Summary

Provide a non-technical summary of the EIS including a description of the proposal, key findings and recommendations.

#### 4. Introduction

Summarise the proposal background and justification for the proposal.

#### 5. Proposal Details

#### 5.1. Project Description

Provide a description of the proposal, including:

- a) The objectives and justification for the proposal;
- b) The location of the land to which the proposal relates, including detailed maps;
- c) The division and/or district names and block and/or section numbers of the land under the *Districts Act 2002;*
- d) If the land is leased the lessee's name;
- e) If the land is unleased or public land the custodian of the land;
- f) The purposes for which the land may be used;
- g) A clear identification of all lands subject to direct disturbance from the proposal and associated infrastructure and geomorphic features such as waterways and wetlands. This is to be supported by a map showing all affected lands;
- h) An outline of any developments that have been, or are being, undertaken by the proponent, or other person(s) or entities, within the proposal area and broadly in the region. Describe how the proposal relates to these developments;
- A description of all the components of the proposal, including the proposal specifications, the predicted timescale for implementation (design, approvals, construction and decommissioning) and project life;

- j) A plan/description of the precise location of any works to be undertaken, structures to be built or elements of the proposal that may have relevant impacts; and
- k) A description of the construction methodologies for the proposal.

#### 5.2. Alternatives to the proposal

Provide details of any alternatives to the proposal considered in developing the proposal including a description of:

- a) Any alternatives to the proposal and provide reasons for selecting the preferred option with an analysis of site selection as an attachment to the EIS;
- b) The criteria used for assessing the performance of any alternative considered;
- c) Any matters considered to avoid or reduce potential impacts prior to the selection of the preferred option; and
- d) Details of the consequences of not proceeding with the proposal.

## 6. Legislative and Strategic Context

A description of the EIS process including any statutory approvals obtained or required for the proposal, and how the proposal is aligned with strategic priorities for the ACT.

#### 6.1. Statutory requirements

The description must include information on statutory requirements for the preparation of an EIS:

- Planning and Development Act 2007 (including confirmation of relevant Schedule 4 triggers based on impacts identified in the scoping document and any studies undertaken in preparing the draft EIS)
- Planning and Development Regulation 2008
- Environment Protection Act 1997
- Environment Protection Regulation 2005
- Nature Conservation Act 2014
- Tree Protection Act 2005
- Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)
- Environment Protection and Biodiversity Conservation Regulations 2000 (Commonwealth)
- Related statutory approvals.

## 6.2. Climate change

The EIS must include information on how the proposal will reduce the risks from climate change impacts and include proposed adaptation measures to reduce vulnerability and increase resilience of the community and the Territory, particularly in relation to the extreme events of heatwaves, droughts, storms with flash flooding and bushfires. The information must address impacts on the local microclimate and how it will avoid contribution to urban heat and positively contribute to urban cooling measures.

Additionally, the EIS must address the contribution the proposal will make to reducing greenhouse gas emissions and meeting the legislated target for a net zero emissions Territory (by 2045 at the latest).

Preparation of the EIS must consider the relevant sections of the following ACT Government policies:

- ACT Climate Change Strategy 2019-2025
- Canberra's Living Infrastructure Plan: Cooling the City

#### 6.3. Other requirements

The description must also include information on how each of the following has been considered in the preparation of the EIS and the development of the proposal:

- Territory Plan 2008
- ACT Planning Strategy
- National Capital Plan
- Relevant Environment Protection Policies and Separation Distance Guidelines for Air Emissions (<u>https://www.environment.act.gov.au/about-us/legislation-policies-guidelines</u>)
- Plans of Management for any public land
- Any relevant Master Plan
- Other relevant planning and environmental guidelines, action plans and management plans.

#### 6.3.1. Ecologically sustainable development (ESD)

Provide a description of how the proposed development demonstrates ESD. This is to include longterm and short-term considerations related to economic development, social development and environmental protection at local, regional and national scales. The proponent should ensure that the EIS adequately addresses the ESD principles as defined by section 9 of the PD Act.

#### 6.3.2. Territory Plan strategic directions

A statement must be provided regarding the proposal's consistency with the principles in the Statement of Strategic Directions in the Territory Plan 2008 (Section 2.1 - Strategic Direction).

#### 7. Risk Assessment

#### 7.1. Risk Assessment Methodology

Provide a risk assessment in accordance with the Australian and New Zealand Standard for risk management AS/NZS ISO 31000:2009 *Risk Management – Principles and guidelines.* The proposed criteria for determining which risks are potentially significant impacts must be described.

## -Assessment guide-

Provide a table with the headings below to describe the risks identified and the original risk rating without any mitigation strategies in place. This table format is one option, however alternative formats can be used provided the methodology is clearly described and in accordance with AS/NZS ISO 31000:2009 *Risk Management – Principles and guidelines* 

Risk	Likelihood	Consequence	Risk rating
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The Preliminary Risk Assessment (PRA) submitted as part of the request for a scoping document must be revised to include, but not be limited to, the risks identified by the Authority in Table 1 below. The risks identified in Table 1 are based on the scoping document application, assessment by the Authority and comments received from entities on the application. All of these risks are considered potentially significant (i.e. a medium risk level or above), and must be addressed in the EIS. Should any risk levels change during the preparation of the EIS or any new risks become apparent, these must be assessed and included with a justification in the EIS, and where relevant, state the residual risk.

Environmental Theme	Risk identified	See section/s below for further detail			
Soils and Geology	<ul> <li>Impact due to contamination of soil from construction and operation</li> </ul>	8.2.1			
Water Quality and Hydrology	<ul> <li>Impact from changes to surface water flow</li> <li>Impacts to water quality of surface water or groundwater</li> </ul>	8.2.2			
Biodiversity and Conservation Values	<ul> <li>Impacts from removal of native vegetation</li> <li>Impacts to flora during construction</li> <li>Impacts to Fauna during construction</li> </ul>	8.2.3			
Heritage	<ul> <li>Impact to unknown heritage sites during construction</li> </ul>	8.2.4			
Hazard and Risk	<ul> <li>Impacts from fire at the facility (creating bushfire)</li> <li>Impact of bushfire to the facility (bushfire prone)</li> <li>Impact of potentially toxic chemical/fumes if the facility catches on fire</li> <li>Impact of hazardous waste during construction, operation/maintenance and decommissioning</li> </ul>	8.2.5			
Utilities	Impacts to existing/adjacent utilities	8.2.6			

## Table 1 – Identified impacts and requirements to be addressed in the EIS

## 8. Assessment of Impacts

Sufficient information is required to provide the Authority with an adequate understanding of the environmental impacts associated with the proposal.

Each potentially significant risk identified in Table 1 and in the proponent's PRA must be addressed, and structured, as set out in sections 8.1 and 8.2 below.

## 8.1 Standard requirements

#### 8.1.1. Environmental conditions and values

Describe the environmental conditions and values for the environmental themes identified in Table 1. This section should discuss the baseline conditions for the area.

#### 8.1.2. Investigations

Identify the findings and results of any environmental investigation in relation to the land to which the proposal relates.

#### 8.1.3. Impacts

Describe the environmental impacts associated with the construction and operation for the environmental themes identified in Table 1 and in the proponent's risk assessment (including cumulative, consequential and indirect effects) on physical and ecological systems and human communities.

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Particular emphasis should be placed on the potentially significant impacts identified in the risk assessment and Table 1 of this scoping document. Include a discussion of the timeframes of impacts i.e. short or long term, their nature and extent and whether they are reversible or irreversible, unknown or unpredictable. Include an analysis of the significance of the relevant impacts. Information must include any technical data and other information used or needed to make a detailed assessment of the relevant impacts.

## 8.1.4. Avoidance, mitigation and offsetting

Discuss the proposed safeguards and mitigation measures that will be implemented to reduce the potentially significant impacts identified in Table 1 and the proponent's risk assessment. This is to include:

- a) A description and an assessment of the proposed impact avoidance, mitigation or offsetting measures to deal with the environmental impact of the proposal, along with which stage the mitigation measures will be adopted
- b) Any statutory or policy basis for the mitigation measures
- c) An outline of an environmental management plan (EMP) that sets out the framework for continuing management, mitigation and monitoring programs for the relevant impacts of the action, including any provisions for independent environmental auditing
- d) The frequency, duration and objectives of monitoring proposed
- e) The name of the agency responsible for endorsing or approving each mitigation measure or monitoring program
- f) Any corrective actions should the mitigation measures fail
- g) A description of the cost effectiveness of environmental mitigation or rehabilitation measures proposed and the expected or predicted effectiveness of those measures.

Offsets should directly contribute to the ongoing viability of protected matters impacted by the project and deliver an overall conservation outcome that improves or maintains the viability of protected matters as compared to what is likely to have occurred under the status quo, that is if neither the action nor the offset had taken place.

The offset package must provide compensation for any unavoidable impacts arising from the proposal on listed threatened species and communities. The offset package must include, but not be limited to, measures to address the long-term protection and management of relevant listed threatened species and communities at offset sites in the ACT (or surrounding area) and may also include management measures to improve the ecological values. Further information on the provision of Commonwealth offsets is detailed in the *EPBC Offsets Policy (2012)* available from: <a href="http://www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy">http://www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy</a>

Describe the cost effectiveness of environmental mitigation or rehabilitation measures proposed and the expected or predicted effectiveness of those measures.

Note: Any EMP in relation to this project is to be made publicly available on the proponent's website if the project is subsequently approved under the EPBC Act.

## 8.1.5. Residual risk

Provide a table that details the residual risk for potentially significant impacts identified in Table 1 and the proponent's risk assessment. A residual risk assessment is only required where the impact is identified in Table 1 or significance of impact is determined as medium or above.

The calculation of the residual risk should take into account the implementation of mitigation or offsetting measures. A discussion of how the calculations were determined should also be included, including the expected or predicted effectiveness of the mitigation measures.

-Assessment Guide-						
Provide the residual risk assessment as set out in the table below.						
Risk identified in Section 7	Original risk rating from items identified in 7	Residual likelihood	Residual consequence	Residual risk rating		

#### 8.2. Detailed requirements

The following matters relate to Table 1 and must be addressed in detail in the EIS. Please note this is not an exhaustive list of matters that may be required to accurately detail the assessment scenarios.

#### 8.2.1. Soils and Geology

- Describe the soil and geology features of the area.
- Describe the controls required to prevent spillage or leakage into the surrounding soil from hazardous materials on site.
- Describe how the site will be remediated if required.
- Describe impacts from clearing of vegetation in relation to erosion and sedimentation and measures to reduce the impacts.

## 8.2.2. Water Quality and Hydrology

- Describe the current water flow and impacts from the proposal on water flow both on site and in the surrounding area/catchment.
- Describe the current surface water and groundwater quality and measures proposed to maintain and monitor water quality.
- Provide information on stormwater/wastewater management both during construction and operation including any on site detention, treatment systems and water quality protection measures. This should include consideration of any chemicals into the receiving environment.
- Include the controls required to prevent spillage or leakage of hazardous materials into the surrounding groundwater and the mitigation measures to prevent the contamination of stormwater systems.

## 8.2.3. Biodiversity and Conservation Values

- Describe biodiversity values on the project site and surrounding area including:
  - o Distribution and condition of threatened ecological communities.
  - Distribution of endangered species and their habitat and habitat condition.
- Describe direct and indirect impacts of the development on these values including but not limited to impacts from:
  - Removal of native vegetation and ecological communities including Verge Trees (outside the block boundary)
  - Noise and vibration during construction
  - Weed introduction and spread
  - Erosion and sedimentation
  - o Contamination of land and water
  - o Waste

- Describe/address the impacts on matters of National Environmental Significance (matters of NES) and the requirements of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).
- Describe measures for avoidance and mitigation of these impacts.
- Where avoidance and mitigation are not possible, offsets may be considered if demonstrated that the chosen offset site is suitable and the most appropriate option for the whole proposal, that the offset complies with the ACT and Commonwealth offsets policies and that there are long term protection measures.
- Outline alternative design options have been explored to avoid or reduce the impact.
- Provide detail on the residual impacts.

## 8.2.4. Heritage

- Include a Cultural Heritage Assessment (CHA) covering the whole project footprint including any access roads and cabling infrastructure, with adequate Representative Aboriginal Organisation (RAO) consultation in line with ACT Heritage Council Requirements.
- If Aboriginal places or objects are identified on site, design changes and/or management controls to avoid heritage impacts should be considered.
- Where impacts are unavoidable a Statement of Heritage Effect (SHE) approved under s 61H of the *Heritage Act 2004* will be required.

## 8.2.5. Hazard and Risk

- Include details of all hazardous material to be used on site.
- Describe potential impacts from spillage and/or leakage of hazardous material, cross referencing other sections of the EIS as required.
- Consider the impact of bushfire on the proposed facility, including details of potential contamination of land, water or air.
- Consider the impact of fire spread from a fire or explosion from the proposed facility.
- Emergency management and response procedures to be provided.
- Provide a bushfire risk assessment that considers/addresses risks from bushfire and risks on the surrounding development from the proposal causing fire, for each stage of the development. The assessment must consider access for emergency vehicles/personnel to and around the development and suitable separation for each component.
- Provide considerations around toxic plume modelling and potential impact on the urban area.

## 8.2.6. Utilities

- Describe the existing utilities located on the land subject to this proposal and in the surrounding area.
- Describe any new utilities, removal or realignments required as a result of this development.
- Consider the impact of the proposal on utilities in the surrounding area (in particular the Lower Molonglo Water Quality Control Centre, including undertaking consultation with Icon Water) and describe mitigation measures as required.
- Describe how the proposal will be designed, constructed and maintained in accordance with the relevant Australian and International Standards.

## 8.3. Commonwealth Government Requirements

The EIS must address the requirements of the Commonwealth Government Department of Agriculture, Water and the Environment (DAWE) provided in <u>Attachment A</u>. Where requirements overlap with other sections in the EIS, this must be cross referenced.

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#### 8.4. Entity requirements

The EIS must address the entities comments provided in <u>Attachment A</u>. If the issues raised by entities have been addressed in other sections of the EIS, this must be cross referenced.

## 9. Community and stakeholder consultation

The intention of the consultation in this scoping document is to ensure significant proposals include meaningful engagement with the community in the early stages of the project and provide clear expectations and an understanding of the actual development proposed. Consultation also provides an opportunity for the community to contribute in the design of the proposal and to resolve any major concerns early in the planning stages.

#### 9.1. Consultation must be undertaken with:

- Lease holders and land managers of land potentially impacted by the proposal;
- Any recreational groups which may be affected by the proposal;
- Any volunteer conservation, landscape management or land care groups active in the area who may be affected by the proposal; and
- The local community and community groups including local business owners and employees.

#### 9.2. Consultation methods

- Describe the community consultation undertaken (methodology and criteria for identifying stakeholders and the communication methods used). Details and plans must be provided showing potential impacts on the local and wider community to justify how stakeholders were identified. A variety of communication methods must be adopted to ensure all stakeholders are engaged appropriately, such as face to face, email/letters, community meetings and information sessions and website notifications.
- Provide details on the information provided during the community consultation process. A plain English statement explaining the proposal and conceptual drawings must be made available to the community and stakeholders.
- Consultation must occur as early as possible and avoid, or make allowances for public holidays, school holidays and the summer holiday (Christmas) shutdown period.

#### 9.3. Consideration of community feedback

- Provide a summary of how the community and stakeholders responded to the proposal and the main comments raised. Evidence must be provided demonstrating that consultation has been undertaken with each relevant group/person including specific detail on how these concerns were addressed.
- Describe how any concerns have been considered and identify any changes that have been made to the proposal.

#### 9.4. Consideration of public representations from Draft EIS notification

• The revised EIS must include a consultation report outlining the representations received, issues raised in the representations and a response to the issues and values identified. The summary response must clearly identify the representation(s) to which the responses relate.

## **10.** Recommendations

Provide a summary of any commitments to impact avoidance, mitigation measures, offsetting measures and other actions within the EIS. Describe the monitoring parameters, monitoring points, frequency, data interpretation and reporting proposals.

## **11. Other relevant information**

The proponent may wish to include issues outside the scope of the EIS as a separate section of the EIS. This allows the proponent to identify matters not required to be addressed in the EIS, but that would be subject to development assessment consideration and notification. This can provide additional context for members of the public regarding management of environmental issues, by ensuring that the public is aware that these issues will be addressed in the detailed design of the proposal.

## 12. References

A reference list using standard referencing systems must be included.

## **13. Required Appendices**

## 13.1. Scoping document for the EIS

A copy of the scoping document should be included in the EIS. Where it is intended to bind appendices in a separate volume from the main body of the EIS, the scoping document should be bound with the main body of the EIS for ease of cross-referencing.

## 13.2. Scoping Document Reference

Include a table that cross-references the EIS to the scoping document. If the EIS addresses the scoping document in multiple places then this must be also referenced.

## 13.3. Proponent's Environmental History

Provide details of any proceedings under a Commonwealth or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:

- The person proposing to take the action
- For an action for which a person has applied for a permit, the person making the application.

If the person proposing to take the action is a corporation, then provide details of the corporation's environmental policy and planning framework. Enough information is required to satisfy s136(4) of the EPBC Act.

#### **13.4.** Information Sources

For information given the following must be stated:

- The author or any reports or studies
- The publication date
- The source of the information
- How recent the information is (i.e. when a study was conducted or when primary sources were produced)
- How the reliability of the information was tested
- What uncertainties (if any) are in the information.

## 13.5. Study team

The qualifications and experience of the study team and specialist sub-consultants and expert reviewers must be provided.

#### 13.6. Specialist studies

All reports generated based on specialist studies undertaken as part of the EIS are to be included as appendices.

#### 13.7. Research

Any proposals for researching alternative environmental management strategies or for obtaining any further necessary information should be outlined in an appendix.

#### GLOSSARY

**Controlled Action (EPBC):** An action defined under the EPBC Act, s 67.

**Development application (DA):** Application for development as defined under the PD Act.

**Environment:** As defined under the *Planning and Development Act 2007* (the PD Act), each of the following is part of the environment:

- (a) the soil, atmosphere, water and other parts of the earth;
- (b) organic and inorganic matter;
- (c) living organisms;
- (d) structures, and areas, that are manufactured or modified;
- (e) ecosystems and parts of ecosystems, including people and communities;
- (f) qualities and characteristics of areas that contribute to their biological diversity, ecological integrity, scientific value, heritage value and amenity;
- (g) interactions and interdependencies within and between the things mentioned in paragraphs (a) to (f);
- (h) social, aesthetic, cultural and economic characteristics that affect, or are affected by, the things mentioned in paragraphs (a) to (f).

Environmental Impact Statement (EIS): As defined under the PD Act.

EPBC Act: Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)

**Impact Track:** An assessment track that applies to a development proposal defined under the PD Act, s 123.

Long term: Greater than 15 years duration.

Medium term: Greater than three (3) years to 15 years duration.

MNES: Matters of National Environmental Significance as defined under the EPBC Act.

PD Act: Planning and Development Act 2007 (ACT)

Regulated waste: waste defined under the Environment Protection Act 1997

**Scoping:** The process of identifying the matters that are to be addressed by an EIS in relation to the development proposal - see the PD Act, s 212 (2).

Short term: Zero to three (3) years duration.

**Socio-economic:** Involving both social and economic factors.

## ATTACHMENT A

## A1. COMMONWEALTH GOVERNMENT REQUIREMENTS

The Commonwealth Department of Agriculture, Water and the Environment has the following requirements. If the requirements below have been addressed in other sections of the EIS, this must be cross referenced in this section.

#### Description of the project

The environment impact statement (EIS) must include:

- The title of the action and the full name and postal address of the designated proponent.
- The location, boundaries, size (in hectares) of the proposed action area and the disturbance footprint, including the underground cabling connecting the BESS to the TransGrid Stockdill Substation across Block 1634 and Block 1635, and the access road from Stockdill drive.
- A description of all components of the proposed action, including the anticipated timing and duration of all construction, operational and (if relevant) decommissioning components of the action, and their precise locations.

#### Feasible Alternatives

Any feasible alternatives to the action to the extent reasonably practicable, including:

- *if relevant, the alternative of taking no action.*
- a comparative description of the impacts of each alternative on listed threatened species and communities, and listed migratory species.
- sufficient detail to make clear why any alternative is preferred to another.
- Short, medium and long-term advantages and disadvantages of the options must be discussed.

#### Matters of National Environmental Significance (MNES)

The EIS must provide information of the impacts to any MNES identified as potentially being significantly impacted by the proposed action, including:

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived native Grassland Ecological Community (Box Gum Woodland) – critically endangered
- Natural Temperate Grassland of the South Eastern highlands critically endangered
- Golden Sun Moth (Synemon plana) critically endangered
- Pink-Tailed Worm-Lizard (Aprasia parapulchella) vulnerable
- Superb parrot (Polytelis swainsonii) vulnerable

Note: The above list may not be a complete list of listed threatened species and ecological communities that will or are likely to be impacted by the proposed action. It is the proponent's responsibility to ensure that any listed threatened species and ecological communities at the time of the controlled action decision, which will or are likely to be impacted by the project, are assessed for the Minister's consideration. Any listing events (e.g. the listing or up-listing of a species) that occur after the controlled action decision do not affect the assessment and approval process

*For each MNES the following information must be provided:* 

- A description of any potential MNES or their habitat (including but not limited to those above) that occur in the proposed action area and adjacent areas.
- Provide details of the scope, methodology, timing, and effort of field surveys (which must be undertaken by qualified species experts with demonstrated experience in detecting the listed threatened species and ecological communities) including:
  - how surveys were undertaken in accordance with relevant Commonwealth, State guidelines or best practice survey guidelines at the time of the surveys; and
  - *if relevant, the justification for divergence from relevant Commonwealth, State guidelines or best practice survey guidelines at the time of the surveys.*
- For listed threatened species and ecological communities that have the potential, or are likely, to be present at and in the vicinity of the proposed action area, including but not limited to those listed above, this section must provide the following:
  - Information on the abundance, distribution, ecology and habitat preference of the species or communities.
  - Quantification of the extent of habitat and (if known) the number of individuals present, or historical patterns of use on, and surrounding, the development footprint (including maps identifying known or potential habitat).
  - Assessment of the quality and importance of known or potential habitat for the species or communities within the proposed action area and surrounding areas.
  - Information detailing known populations or records within at least five kilometres of the development footprint and, if known, the size of these populations.
  - This habitat assessment must consider the information in the <u>Species Profile and Threats</u> (<u>SPRAT</u>) <u>Database</u> and relevant departmental documents, or justification where it might deviate from those documents. At a minimum, it should identify specific habitat requirements for the species or ecological communities, discuss relevant existing threats, and consider the regional context of habitat within the broader landscape.

#### <u>Impacts</u>

- Describe and assess the impacts (direct and indirect) to listed threatened species and communities giving consideration to the SPRAT Database and relevant departmental policies and guidelines, including the Significant Impact Guidelines 1.1: Environment Protection and Biodiversity Conservation Act 1999 (2013). These guidelines can be found at the following website: <u>http://www.environment.gov.au/epbc/publications/significant-impact-guidelines-11-</u> <u>matters-national-environmental-significance</u>.
- This must include but not be limited to:
  - A detailed assessment of direct and indirect impacts on area of habitat and populations of listed threatened species during pre-construction, construction, and operation.
  - A detailed assessment of the nature and extent of the likely short-term and long-term relevant impacts.
  - An assessment of the impacts on the site's functionality as a habitat corridor.

#### Mitigation measures

- The EIS must include detailed descriptions of measures proposed to be undertaken by the proponent to avoid, mitigate and manage relevant impacts of all stages of the action on listed threatened species and communities.
- Specific and detailed descriptions of proposed measures must be provided and substantiated, based on best available practices, and must include the following elements:
  - an assessment of the predicted effectiveness and environmental outcomes of the proposed measures, including details of any baseline data or proposed monitoring required to demonstrate progress towards achieving these outcomes;
  - any statutory or policy basis for the proposed measures, including reference to the SPRAT Database and relevant approved conservation advices, and a discussion on whether the proposed measures are consistent with relevant recovery plans and threat abatement plans;
  - details of ongoing management, including monitoring programs to support an adaptive management approach and determine the effectiveness of the proposed measures;
  - o information on the timing, frequency and duration of the measures to be implemented; and
  - the name of the agency responsible for endorsing or approving each measure or monitoring program.

#### Cumulative Impacts

• The EIS must identify and address cumulative impacts, where potential project impacts are in addition to existing impacts of other activities, (including known potential future expansions or developments by the proponent and other proponents in the vicinity). Where relevant to the potential impact, risk assessment must be conducted and documented. The risk evaluation must include known potential future expansions or developments by the proponent and other proponents in the vicinity is the proponent and other proponents or developments by the proponent and other proponents in the vicinity.

#### <u>Offsets</u>

- After consideration of proposed avoidance, mitigation and management measures, provide an assessment of the likelihood of residual significant impacts on relevant listed threatened species and ecological communities.
- The EIS must provide a clear and definitive conclusion of residual significant impacts on relevant listed threatened species and ecological communities to align with the EPBC Act Environmental Offsets Policy (2012).

#### Statutory requirements

- Where relevant, the EIS, must discuss how the proponent has had regard to relevant approved conservation advice/s, recovery plan and relevant threat abatement plans.
- The following ecologically sustainable development principles, as defined in Part 1, section 3A of the EPBC Act, should be considered in the EIS documentation:
  - Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.
  - If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

- The principle of inter-generational equity that the present generation should ensure the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.
- The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.
- Improved valuation, pricing and incentive mechanisms should be promoted.

#### **Environmental history**

- The EIS must include the environmental record of the proponent. This must include details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:
  - the person's history in relation to environmental matters; and
  - *if the person is a body corporate—the history of its executive officers in relation to environmental matters; and*
  - *if the person is a body corporate that is a subsidiary of another body or company (the parent body)—the history in relation to environmental matters of the parent body and its executive officers.*

If the person proposing to take the action is a corporation, details of the corporation's environmental policy and planning framework must also be included.

#### Information sources provided in the EIS

For information given in the EIS, the draft must state:

- the source of the information;
- how recent the information is;
- how the reliability of the information was tested; and
- what uncertainties (if any) are in the information.

#### Conclusion

An overall conclusion as to the environmental acceptability of the proposal should be provided, including discussion on compliance with principles of ESD and the objects and requirements of the EPBC Act. Reasons justifying undertaking the proposal in the manner proposed should also be outlined.

Measures proposed or required by way of offset for any unavoidable impacts on MNES, and the relative degree of compensation, should be restated here.

## **A2. ENTITY REQUIREMENTS**

Where not otherwise identified as a potentially significant impact, provide information in accordance with entity requirements. If the issues raised below have been addressed in other sections of the EIS, this must be cross referenced in this section.

#### ACT Emergency Services Agency

ACT Emergency Services Agency has provided the following advice:

ACTF&R would like to see the emergency management and response procedures for the proposal addressed to ensure adequate access, water supply and defendable space is provided for emergency operations in and around the development as well as isolation and monitoring procedures.

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Considerations around toxic plume modelling and potential impact on the urban area would also be beneficial.

Bushfire spread from and to the site is also a consideration and appropriate protection measures will need to be addressed with a bushfire risk assessment.

ACTAS, ACTRFS and ACTSES have no comments or concerns for this scoping document.

## ACT Health

ACT Health has provided the following advice:

The draft EIS or Development Application undertake further investigation and assessment of the risks identified in the Preliminary Risk Assessment, contained within the report titled, "Application for EIS Scoping Document Supporting Document", by Umwelt Environmental & Social Consultants, dated June 2021.

The HPS supports the development and implementation of a Construction Environmental Management Plan, an Environmental Management Plan and an Unexpected Finds Protocol.

If the proposed "water tank" is a rainwater tank, the applicant is advised any taps or outlets supplied by the rainwater tank must be clearly and appropriately identified.

There are no further public health concerns in relation to the proposed EIS scoping document.

#### **ACT Heritage Council**

The Heritage Council (the Council) has provided the following advice:

The Council advises that existing CHA (Cultural Heritage Assessment) letter must be revised to address the previous Council advice issued on the 28 June 2021. The following is required for the EIS:

- Survey of the parts of the project area that have not yet been subject to heritage assessment. This is to include any possible footprints for the access road and any cabling infrastructure footprints. The results are to be included in a revised and expanded CHA. Any additional surveys should include a minimum of two weeks' notice to RAOs (Representative Aboriginal Organisations) and follow up phone calls where required;
- Additional information provided in the revised letter CHA indicated that RAOs were provided with limited notice about the original survey and had not had an opportunity to comment on either version of the letter CHA. The RAOs must be afforded an opportunity to comment on the letter CHA after assessments of the access road and cabling infrastructure footprints have been included. This consultation should, at a minimum, include provision of the revised letter CHA for a two-week period and follow up phone calls if no response is provided;
- If any Aboriginal places are recorded in subsequent surveys the letter CHA will need to be upgraded to a complete CHA report in line with existing policy requirements, and further consultation with RAOS will be required; and
- In the event that the revised letter CHA identifies that the proposal may damage Aboriginal places or objects, the applicant should consider design changes and management controls to avoid heritage impacts. Where this is not reasonably practicable, approval for heritage impacts would need to be sought under the Heritage Act 2004, in the form of a Statement of Heritage Effect application.

#### **Conservator of Flora and Fauna**

The Conservator of Flora and Fauna has provided the following advice:

#### Stormwater runoff

• Further consideration of leaching/runoff of chemicals into the receiving environment is required. Particularly, this risk should be directly evaluated, and advice provided on whether an infrastructure solution to protecting stormwater runoff from contamination is required, noting how close the site is the river.

#### Ecological investigations

The EIS will need to include:

- An assessment of the distribution of Yellow Box Blakely's Red Gum Grassy Woodland (Box-Gum Woodland) endangered ecological community on the site (both Nature Conservation Act and EPBC listings).
- An assessment of the distribution and condition of Pink-tailed Worm-lizard (PTWL) habitat and condition.
- A survey for Golden Sun Moth (GSM) to determine if this species is present on site, and if so, an assessment of its distribution and abundance. The attached report states that the GSM is considered to be unlikely to occur at the site and therefore the project is unlikely to have an adverse impact on the species. Further and strengthened justification this is required as GSM have been recorded 1.5km east of the site and the site supports key food species, including Austrostipa and Rytidosperma. Targeted surveys should be undertaken to confirm the species status at the site.
- An offset proposal for residual impacts on any threatened species or communities; if this involves private land it must address how it will achieve protection in perpetuity.
- Recommendations on how the offset area can improve the habitat quality for the other threatened species that use the area but are not deemed to be significantly impacted (Superb Parrot, Little Eagle).

#### Bushfire Management

- As identified in the Preliminary Risk Assessment the risk of bushfire during different phases of the development will need to be considered.
- This will include the need for Asset Protection Zones around the development to provide an area of advantage for bushfire suppression. This will increase the impact of the development on the local environment including flora and fauna which will need to be considered in those sections. The EIS should outline how these zones will be managed by the proponent; will they arrange to acquire the surrounding land and manage it themselves, or enter into agreement with the Lessee to manage the zones? By what means will assurance be given that APZ's will be appropriately maintained?
- The project area on the sketch plans does not reflect the space required for the Asset Protection Zones. This is required to be shown.
- The site operations procedures should identify policies for the evacuation of the site personnel during days of significant fire danger or where a threat becomes apparent.
- The development could result in bushfire ignition if equipment malfunctions. Details are required on the measures to prevent the spread of fire from the site into the adjacent area.

#### Previously provided comments

- The Proposed Action will require the removal of up to 5 ha of moderate quality derived native grassland associated with critically endangered Box-Gum Woodland. The impact is considered to be significant due to a reduction in extent of the Critically Endangered Ecological Community (CEEC) and increase in fragmentation of the CEEC. Given the significant impact of the proposed development the proponent must demonstrate that other options (e.g. other sites, layouts and designs) have been explored to avoid this impact.
- All connections, including access and infrastructure from Stockdill drive and the substation to the BESS must be considered as part of the assessment.
- In addition to moderate and low quality Box-Gum Woodland, the site also supports PTWL habitat and three large, mature eucalypts. The proponent proposes to protect all PTWL habitat and mature trees. Id the development is approved all these values will need to be fenced off with a sufficient buffer. The proposed 2m buffer around the tree in the eastern section of the site is insufficient and the buffer for all mature trees must be equal to the tree length/height. There is a belief that roots tend to stay under a tree's leaf canopy. This seldom happens. Trees have roots reaching well beyond their individual branches and leaves in search of water and nutrients. Studies have shown that roots grow laterally to a distance equal to the height of the tree.
- A rigorous weed control program will need to be developed and implemented to target African lovegrass infestations particularly within remaining Box-Gum Woodland, PTWL habitat and surrounding areas.
- Potential indirect offset options could include large scale (e.g. 15ha) Box-Gum Woodland understorey restoration project within in degraded Box-Gum Woodland areas of an existing Nature reserve. This would require a minimum of 50kg of native grass and forb seed per ha, site preparation (e.g. weed control and/or scraping and spoil management) and a 5 year maintenance schedule and ongoing maintenance budget. More details can be provided if required.

#### **Environment Protection Authority (EPA)**

The Environment Protection Authority has provided the following advice:

No comments on the scoping request. EPA matters for the proposed development will be able to be adequately addressed at the Development Application stage.

#### **EvoEnergy – Electricity**

To date, no comment has been received.

## EvoEnergy – Gas

No comment.

#### Icon Water

Icon Water have compiled the following comments:

#### Environment team

• Bushfire risk from construction, ongoing maintenance and operation has been identified as a significant risk in this report. Icon Water should be provided the bushfire management plan which is to be developed later. LMWQCC is a critical ACT asset and bushfire is a significant risk to the operation of such infrastructure. This will allow Icon Water to assess the risks with

the development and the plant itself. I would also suggest Icon Water be involved in the discussions with ACT Fire and Rescue and the proponent regarding bushfire as Icon Water are a major stakeholder.

- Failure of one Lithium cell within battery systems such as the one proposed can cascade into hundreds of each of the individual cells within the larger battery pack. These lead to flammables gasses emitted and potential explosions. Such fires are hard to extinguish as they are gas fires and may take several days to extinguish. Additionally, they have the potential to emit toxic fumes during a fire.
  - A recent case study in Victoria; a large scale battery system caught fire (same company proposing this system Neoen) which could be cause for concern with regards to bushfire and the LMWQCC. The surrounding land is dry grassland which if ignited may lead to rapid fire spread to the LMWQCC.
- Contractor to provide specifications about the battery systems (I can only presume they are 'Tesla Megapacks' – but Icon Water should know for sure) to be used regarding potential for contamination, leaking of battery acid and potential impacts to the adjacent LMWQCC.
  - Australian Standards would dictate that anything like this is bunded completely but we should know the specifications of the battery system to ensure that it is covered.
- Follow up with the contractors traffic management plan to ensure compatible with the uses of the LMWQCC; there will be increased traffic along Stockdill Drive. Icon Water should be consulted during this process.

#### Developer Services

• There is no sewer main servicing the block and it may not be possible to service the block. There is an existing DN150 water main along Stockdill drive.

## **Building Approvals**

• Any work(s) that is likely to impact on the Icon Water infrastructure must have Icon Water acceptance prior to any work being undertaken.

## Trade Waste

- All connections to sewer that are classified as Liquid Trade Waste (any non-domestic sewage) must apply to Icon Water for approval before connection to sewer. Further information on acceptance requirements for liquid trade waste can be found on the Icon Water website <u>www.iconwater.con.au\tradewaste</u>.
- In this circumstance at a minimum Territory Battery will need Icon Water Approval to discharge to sewer, as such a trade waste application must be submitted. A consultation may be required to ascertain the likely discharge and discuss what if any pre-treatment is required or if some waste must be collected for off-site disposal.
- Icon Water Liquid Trade Waste team contact information is Email: <u>trade.waste@iconwater.com.au</u> Phone 02 6248 3222.

#### **National Capital Authority**

To date, no comment has been received.
### Transport Canberra and City Services Directorate

TCCS has provided the following advice:

TCCS can provide in principle support for this project, however request that the following conditions to be addressed at a later stage of the project:

- EIS Scoping Document: Please include Verge Trees (outside the block boundary) as a line item under Construction and Operational Impacts.
- The proposed 6m wide access road be routed to avoid existing trees on the verge. All site works will be outside of the Tree Protection Zone (TPZ) and in accordance with AS4970.
- TCCS request a formal Tree Assessment of all trees by a certified arborist during the detailed design phase, with all trees numbered for reference.
- TCCS expect that trees are managed with strict protocols outlined in a Landscape Management and Protection Plan (LMPP) with Tree Management Notes. LMPP approval must be obtained Development Coordination Branch TCCS. This plan is to be implemented before the commencement of works, including earthwork on the site and is to be in accordance with TCCS Guidelines for the Protection of Public Landscape Assets Adjacent to Development Works-REF-04.
- A Soil and Erosion Control Plan must be submitted to TCCS to assess any possible impact on the surrounding land uses.
- A Construction and Environmental Management Plan must be provided indicating the impact of construction, heavy vehicle movements during the construction, and conflict with vulnerable road users and potential environmental impact as a result
- TCCS will assess the access arrangement and traffic issues at DA stage.

### **Utilities Technical Regulation**

Utilities Technical Regulation has provided the following advice:

UTR have reviewed EIS Scoping Document – EIS202100027 and supporting information.

The prosed project is for a large grid scale BESS and associated network type substation. As such, the project proponent needs to outline what standards will be followed for design, construction, operation and maintenances phases eg. compliance with AS 2067 is required; etc.

Also appropriate for development and operation of such a large project is commitment to adoption of AS 5577 for identifying and managing safety issues through the conduct of Formal Safety Assessments (FSA).

This will help address the following identified deficiencies in the current proposal:

- Appendix A Preliminary Risk Assessment; This has not adequately considered significant issues such as, but not limited to:
  - Fire & Explosion events during construction (including during commissioning tests) and operation phases of the project related to the volatile Li-ion batteries and substation transformers. Outline of mitigation measures to be incorporated such as: BESS module segregation, explosion containment, fire suppression and firefighting, monitoring & detection systems for evolving faults and associated auto and manually initiated isolation schemes.

- Impact of Transformer large oil leaks and associated environmental contamination and fires. Mitigation measures such as oil containment are required.
- The issues identified in the Decommissioning Phase under the Waste category, would also be relevant during the Operation phase (eg. recycling of BESS components). Furthermore, the Waste consequence has been assess as Minor but a higher consequence rating is warranted if one considers the consequences of say: abandoned transformer oil (possible fire, leaks causing environmental damage); toxic air pollution from abandoned Li-ion battery fires; etc.
- Safety measures to avoid hazards arising from inadvertent excavation and damage of HV cables external to the site eg. Those connecting to TransGrid substation.
- There is no consideration of Earth Potential Rise (EPR) and associated Step & Touch potential hazards, nor Electromagnetic Induction (EMI) hazards to any nearby long metallic structures eg. pipes, fences, telecommunication circuits, etc. UTR technical codes, relevant Australian and International standards, and industry codes/guidelines need to be observed to avoid these electrical safety hazards (eg. AS 2067, AS EG0, AS EG1, AS/NZS 4853, HB 101 and HB 102, IEEE 80 ).
- The proposed 2.4 m chain wire fence is not considered sufficiently robust /secure and electricity network industry practice is to provide 3m high palisade or equivalent type security fence.
- If the proposed 20,000 litre water tank is intended for firefighting purposes, this alone is unlikely to be adequate for the installation size. Also, what measures are there for ensuring the tank is kept full. Will a suitably sized fire hydrant capacity water main be available onsite.
- In the project outline fig 2.2, it appears that there is no or very limited access between battery/inverter modules due to the high density layout. This is not conducive for limiting fire spread, firefighting access, explosion segregation, maintenance and module replacement access – more information should be provided that addresses these issues.

Appendix 2 – Cross reference table between EIS and the final scoping document





### TERRITORY BATTERY



### ENVIRONMENTAL IMPACT STATEMENT

APPENDIX B: SCOPING DOCUMENT AND EIS CROSS-REFERENCE TABLE





# Appendix B Scoping Document and EIS cross-reference table

**Table B1** provides a summary of the individual matters listed in the Proposal's EIS Scoping Document and identifies

 where each of these requirements have been addressed in this EIS.

Table B1: Scoping Document and EIS cross-references

Requirement	Location in EIS		
General requirements			
Cover page			
<ul> <li>The cover page must clearly display the following:</li> <li>The name of the proposal (project title).</li> <li>The block identifier(s) and street address for the proposal.</li> <li>The date of the preparation of the document.</li> <li>Full name and postal address of the designated proponent.</li> <li>Full name and postal address of the designated applicant.</li> <li>Name and contact details of the person/organisation who prepared the documents (if different to the above).</li> </ul>	Cover page		
Glossary			
Provide a glossary of technical terms, acronyms and abbreviations used in the EIS.	List of abbreviations Glossary		
Executive summary			
Provide a non-technical summary of the EIS including a description of the proposal, key findings and recommendations.	Executive summary		
Introduction			
Summarise the proposal background and justification for the proposal.	Chapter 1		
Proposal details			
<ul> <li>Project description</li> <li>Provide a description of the proposal, including: <ul> <li>a) The objectives and justification for the proposal.</li> <li>b) The location of the land to which the proposal relates, including detailed maps.</li> <li>c) The division and/or district names and block and/or section numbers of the land under the <i>Districts Act 2002</i>.</li> <li>d) If the land is leased – the lessee's name.</li> <li>e) If the land is unleased or public land – the custodian of the land.</li> <li>f) The purposes for which the land may be used.</li> <li>g) A clear identification of all lands subject to direct disturbance from the proposal and associated infrastructure and geomorphic features such as waterways and wetlands. This is to be supported by a map showing all affected lands.</li> <li>h) An outline of any developments that have been, or are being, undertaken by the proponent, or other person(s) or entities, within the proposal area and broadly in the region. Describe how the proposal related to these developments.</li> </ul> </li> </ul>	The Proposal's objectives and justification are provided in <b>Section 1.2</b> and <b>Section 1.3</b> . A description of the Proposal is provided in <b>Chapter 2</b> . This chapter also provides details about existing and planned developments in proximity to the Proposal Area.		
specifications, the predicted timescale for implementation (design, approvals, construction and decommissioning) and project life.			



Red	quirement	Location in EIS
j)	A plan/description of the precise location of any works to be undertaken, structures to be built or elements of the proposal that may have relevant impacts.	
k)	A description of the construction methodologies for the proposal.	
Alte	ernatives to the proposal	Section 2.4
Pro	vide details of any alternatives to the proposal considered in developing the proposal uding a description of:	Avoidance and minimisation measures
a)	Any alternatives to the proposal and provide reasons for selecting the preferred option with an analysis of site selection as an attachment to the EIS.	have been considered in the technical chapters
b)	The criteria used for assessing the performance of any alternative considered.	Chapter 5 to Chapter 15), See in
c)	Any matters considered to avoid or reduce the potential impacts prior to the selection of the preferred option.	particular <b>Section 5.5.1</b> (avoidance of
d)	Details of the consequences of not proceeding with the proposal.	biodiversity values).
Leç	jislative and strategic context	
A d for	escription of the EIS process including any statutory approvals obtained for or required the proposal, and how the proposal is aligned with strategic priorities for the ACT.	Chapter 3
Sta	tutory requirements	
The	e description must include information on statutory requirements for preparation of an EIS:	
•	Planning and Development Act 2007 (including confirmation of relevant Schedule 4 triggers based on impacts identified in the scoping document and any studies undertaken in preparing the draft EIS).	
•	Planning and Development Regulation 2008.	
•	Environment Protection Act 1997.	
•	Environment Protection Regulation 2005.	Section 3.1
•	Nature Conservation Act 2014.	
•	Tree Protection Act 2005.	
•	Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth).	
•	Environment Protection and Biodiversity Conservation Regulations 2000 (Commonwealth).	
•	Related statutory approvals.	
Cli	nate change	
The EIS must include information on how the proposal will reduce the risks from climate change impacts and include proposed adaptation measures to reduce vulnerability and increase resilience of the community and the Territory, particularly in relation to the extreme events of heatwaves, droughts, storms with flash flooding and bushfires. The information must address impacts on the local microclimate and how it will avoid contribution to urban heat and positively contribute to urban cooling measures.		Beneficial climate change impacts of the Proposal are detailed in Section 3.3 and Section 12.4.3.2.
Ado gre Ter	litionally, the EIS must address the contribution the proposal will make to reducing enhouse gas emissions and meeting the legislated target for a net zero emissions ritory (by 2045 at the latest).	Section 3.3 also discusses how the Proposal is consistent
Pre poli	paration of the EIS must consider the relevant sections of the following ACT Government cies:	Government's climate
•	ACT Climate Change Strategy 2019–2025.	
•	Canberra's Living Infrastructure Plan: Cooling the City.	
Oth	er requirements	The Territory Plan, ACT
The con	e description must also include information on how each of the following has been sidered in the preparation of the EIS and the development of the proposal:	National Capital Plan are discussed in
•	Territory Plan 2008.	Section 3.4.
•	ACT Planning Strategy.	Relevant EPPs are





Rec	juirement	Location in EIS
• • • •	National Capital Plan. Relevant Environment Protection Policies and Separation Distance Guidelines for Air Emissions (https://www.environment.act.gov.au/about-us/legislation-policies-guidelines). Plans of Management for any public land. Any relevant Master Plan. Other relevant planning and environmental guidelines, action plans and management plans.	discussed in Section 3.1.1.3.
Ecc	logically sustainable development (ESD)	
Pro incl dev pro by \$	vide a description of how the proposed development demonstrates ESD. This is to ude long-term and short-term considerations related to economic development, social elopment and environmental protection at local, regional and national scales. The bonent should ensure that the EIS adequately addresses the ESD principles as defined Section 9 of the PD Act.	Section 3.5
Ter	ritory Plan strategic directions	
A st Stat Dire	atement must be provided regarding the proposal's consistency with the principles in the ement of Strategic Directions in the Territory Plan 2008 (Section 2.1 - Strategic ection).	Section 3.4.2.1
Ris	k assessment	
Ris	k assessment methodology	The risk assessment
Pro risk The des The doc Aut app abo prej incli	vide a risk assessment in accordance with the Australian and New Zealand Standard for management <i>AS/NZS ISO 31000:2009 Risk Management – Principles and guidelines.</i> proposed criteria for determining which risks are potentially significant impacts must be cribed. Preliminary Risk Assessment (PRA) submitted as part of the request for a scoping ument must be revised to include, but not be limited to, the risks identified by the nority in Table 1. The risks identified in Table 1 are based on the scoping document lication, assessment by the Authority and comments received from entities on the lication. All of these risks are considered potentially significant (i.e. a medium risk level or ve), and must be addressed in the EIS. Should any risk levels change during the paration of the EIS or any new risks become apparent, these must be assessed and uded with a justification in the EIS, and where relevant, state the residual risk.	methodology used in this EIS is detailed in <b>Section 4.1</b> . The preliminary (pre- mitigated) risk assessment for the Proposal is provided in <b>Section 4.2</b> , with the residual risk assessments provided in <b>Chapter 5</b> to <b>Chapter 15</b> .
Ass	essment of impacts	
Sufficient information is required to provide the Authority with an adequate understanding of the environmental impacts associated with the proposal. Each potentially significant risk identified in Table 1 and in the proponent's PRA must be addressed, and structured, as set out in sections 8.1 and 8.2 (standard and detailed requirements, see below)		Chapter 5 to Chapter 15
		Each of the technical
Sta	ndard requirements	chapters (Chapter 5 to Chapter 15) have been
•	Environmental conditions and values: Describe the environmental conditions and values for the environmental themes identified in Table 1. This section should discuss the baseline conditions for the area.	structured to address the investigations undertaken for the Proposal for each
•	relation to the land to which the proposal relates.	environmental theme, the existing
•	Impacts: Describe the environmental impacts associated with the construction and operation for the environmental themes identified in Table 1 and in the proponent's risk assessment (including cumulative, consequential and indirect effects) on physical and ecological systems and human communities.	environmental conditions and values in the Proposal Area and surrounds, potential impacts of the Proposal, and measures for



### Requirement

Particular emphasis should be placed on the potentially significant impacts identified in the risk assessment and Table 1 of this scoping document. Include a discussion of the timeframes of impacts i.e. short or long term, their nature and extent and whether they are reversible or irreversible, unknown or unpredictable. Include an analysis of the significance of the relevant impacts. Information must include any technical data and other information used or needed to make a detailed assessment of the relevant impacts.

- Avoidance, mitigation and offsetting: Discuss the proposed safeguards and mitigation measures that will be implemented to reduce the potentially significant impacts identified in Table 1 and the proponent's risk assessment. This is to include:
  - a) A description and an assessment of the proposed impact avoidance, mitigation or offsetting measures to deal with the environmental impact of the proposal, along with which stage the mitigation measures will be adopted.
  - b) Any statutory or policy basis for the mitigation measures.
  - c) An outline of an environmental management plan (EMP) that sets out the framework for continuing management, mitigation and monitoring programs for the relevant impacts of the action, including any provisions for independent environmental auditing.
  - d) The frequency, duration and objectives of monitoring proposed.
  - e) The name of the agency responsible for endorsing or approving each mitigation measure or monitoring program.
  - f) Any corrective actions should the mitigation measures fail.
  - g) A description of the cost effectiveness of environmental mitigation or rehabilitation measures proposed and the expected or predicted effectiveness of those measures.

Offsets should directly contribute to the ongoing viability of protected matters impacted by the project and deliver an overall conservation outcome that improves or maintains the viability of protected matters as compared to what is likely to have occurred under the status quo, that is if neither the action nor the offset had taken place.

The offset package must provide compensation for any unavoidable impacts arising from the proposal on listed threatened species and communities. The offset package must include, but not be limited to, measures to address the long-term protection and management of relevant listed threatened species and communities at offset sites in the ACT (or surrounding area) and may also include management measures to improve the ecological values.

Describe the cost effectiveness of environmental mitigation or rehabilitation measures proposed and the expected or predicted effectiveness of those measures.

• Residual risk: Provide a table that details the residual risk for potentially significant impacts identified in Table 1 and the proponent's risk assessment. A residual risk assessment is only required where the impact is identified in Table 1 or significance of impact is determined as medium or above.

The calculation of the residual risk should take into account the implementation of mitigation or offsetting measures. A discussion of how the calculations were determined should also be included, including the expected or predicted effectiveness of the mitigation measures.

#### Soil and geology are **Detailed requirements** discussed in Chapter 7. The following matters relate to Table 1 and must be addressed in detail in the EIS. Please Water quality and note this is not an exhaustive list of matters that may be required to accurately detail the hydrology are discussed assessment scenarios. in Chapter 6. Soils and geology Biodiversity is discussed • in Chapter 5. Describe the soil and geology features of the area. 0 Heritage is discussed in Describe the controls required to prevent spillage or leakage into the surrounding 0 soil from hazardous materials on site. Chapter 8. Hazards and risks are Describe how the site will be remediated if required. 0 discussed in

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### Location in EIS

avoiding, mitigating, managing and offsetting those impacts.

The environmental management framework is discussed in **Chapter 18**, with an outline CEMP and EMP provided in this chapter and example EMP in

Appendix F13.

A draft BOS has been prepared which provides the proposed approach for offsetting potential significant residual impacts to BGW. The BOS is attached at **Appendix F3** and summarised in **Section 5.7**.

Residual risk assessments are provided for each environmental theme in **Chapter 5** to **Chapter 15**, and a summary table is provided in **Chapter 17** for all potentially

significant impacts of the Proposal.



Re	quir	ement	Location in EIS
	0	Describe impacts from clearing of vegetation in relation to erosion and sedimentation and measures to reduce the impacts.	Chapter 15, with contamination discussed in Chapter 7
•	Wa	ater quality and hydrology	In Chapter 7.
	0	Describe the current water flow and impacts from the proposal on water flow both on site and in the surrounding area/catchment.	Section 15.6.
	0	Describe the current surface water and groundwater quality and measures proposed to maintain and monitor water quality.	
	0	Provide information on stormwater/wastewater management both during construction and operation including any on site detention, treatment systems and water quality protection measures. This should include consideration of any chemicals into the receiving environment.	
	0	Include the controls required to prevent spillage or leakage of hazardous materials into the surrounding groundwater and the mitigation measures to prevent the contamination of stormwater systems.	
•	Bic	odiversity and conservation values	
	0	Describe biodiversity values on the project site and surrounding area including:	
		<ul> <li>Distribution and condition of threatened ecological communities.</li> </ul>	
		<ul> <li>Distribution of endangered species and their habitat and habitat condition.</li> </ul>	
	0	Describe direct and indirect impacts of the development on these values including but not limited to impacts from:	
		<ul> <li>Removal of native vegetation and ecological communities including Verge Trees (outside the block boundary).</li> </ul>	
		<ul> <li>Noise and vibration during construction.</li> </ul>	
		<ul> <li>Weed introduction and spread.</li> </ul>	
		<ul> <li>Erosion and sedimentation.</li> </ul>	
		<ul> <li>Contamination of land and water.</li> </ul>	
		<ul> <li>Waste.</li> </ul>	
	0	Describe/address the impacts on matters of National Environmental Significance (matters of NES) and the requirements of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	
	0	Describe measures for avoidance and mitigation of these impacts.	
	0	Where avoidance and mitigation are not possible, offsets may be considered if demonstrated that the chosen offset site is suitable and the most appropriate option for the whole proposal, that the offset complies with the ACT and Commonwealth offsets policies and that there are long term protection measures.	
	0	Outline alternative design options have been explored to avoid or reduce the impact:	
		o Provide detail on the residual impacts.	
•	He	ritage	
	0	Include a Cultural Heritage Assessment (CHA) covering the whole project footprint including any access roads and cabling infrastructure, with adequate Representative Aboriginal Organisation (RAO) consultation in line with ACT Heritage Council Requirements.	
	0	If Aboriginal places or objects are identified on site, design changes and/or management controls to avoid heritage impacts should be considered.	
	0	Where impacts are unavoidable a Statement of Heritage Effect (SHE) approved under s 61H of the Heritage Act 2004 will be required.	
•	На	zard and risk	
	0	Include details of all hazardous material to be used on site.	
	0	Describe potential impacts from spillage and/or leakage of hazardous material, cross referencing other sections of the EIS as required.	





Requirement			Location in EIS
	0	Consider the impact of bushfire on the proposed facility, including details of potential contamination of land, water or air.	
	0	Consider the impact of fire spread from a fire or explosion from the proposed facility.	
	0	Emergency management and response procedures to be provided.	
	0	Provide a bushfire risk assessment that considers/addresses risks from bushfire and risks on the surrounding development from the proposal causing fire, for each stage of the development. The assessment must consider access for emergency vehicles/personnel to and around the development and suitable separation for each component.	
	0	Provide considerations around toxic plume modelling and potential impact on the urban area.	
•	Util	ties	
	0	Describe the existing utilities located on the land subject to this proposal and in the surrounding area.	
	0	Describe any new utilities, removal or realignments required as a result of this development.	
	0	Consider the impact of the proposal on utilities in the surrounding area (in particular the Lower Molonglo Water Quality Control Centre, including undertaking consultation with Icon Water) and describe mitigation measures as required.	
	0	Describe how the proposal will be designed, constructed and maintained in accordance with the relevant Australian and International Standards.	
Cor	nmc	onwealth Government requirements	0 50
The Agr req	EIS icultu	must address the requirements of the Commonwealth Government Department of ure, Water and the Environment (DAWE) provided in <u>Attachment A</u> . Where nents overlap with other sections in the EIS, this must be cross referenced.	See EIS cross- references for Attachment A below
<b>Entity requirements</b> The EIS must address the entities comments provided in <u>Attachment A</u> . If the issues raised by entities have been addressed in other sections of the EIS, this must be cross referenced.		equirements must address the entities comments provided in <u>Attachment A</u> . If the issues raised es have been addressed in other sections of the EIS, this must be cross referenced.	See EIS cross- references for Attachment A below
Сог	nmu	nity and stakeholder consultation	
Сог	nmu	nity and stakeholder consultation	
The intention of the consultation in this scoping document is to ensure significant proposals include meaningful engagement with the community in the early stages of the project and provide clear expectations and an understanding of the actual development proposed. Consultation also provides an opportunity for the community to contribute to the design of the proposal and to resolve any major concerns early in the planning stages.		ntion of the consultation in this scoping document is to ensure significant proposals meaningful engagement with the community in the early stages of the project and clear expectations and an understanding of the actual development proposed. ation also provides an opportunity for the community to contribute to the design of losal and to resolve any major concerns early in the planning stages.	Chapter 16
Сог	nsult	ation must be undertaken with:	
•	Lea	se holders and land managers of land potentially impacted by the proposal.	The stakeholder groups
•	Any	recreational groups which may be affected by the proposal.	which Neoen has
•	Any are	volunteer conservation, landscape management or land care groups active in the a who may be affected by the proposal.	engaged with are discussed in Section 16.3
•	The em	local community and community groups including local business owners and ployees.	
Сог	nsult	ation methods	The community and
•	Des ider be j stal ens con	scribe the community consultation undertaken (methodology and criteria for ntifying stakeholders and the communication methods used). Details and plans must provided showing potential impacts on the local and wider community to justify how keholders were identified. A variety of communication methods must be adopted to ure all stakeholders are engaged appropriately, such as face to face, email/letters, munity meetings and information sessions and website notifications.	stakeholder engagement methodology implemented by Neoen is detailed in Section 16.2. The engagement
•	Pro	vide details on the information provided during the community consultation process.	mechanisms and





Red	quirement	Location in EIS
	A plain English statement explaining the proposal and conceptual drawings must be made available to the community and stakeholders.	information provided during engagement
•	Consultation must occur as early as possible and avoid, or make allowances for public holidays, school holidays and the summer holiday (Christmas) shutdown period.	activities are described in Section 16.2.
Со	nsideration of community feedback	
•	Provide a summary of how the community and stakeholders responded to the proposal and the main comments raised. Evidence must be provided demonstrating that consultation has been undertaken with each relevant group/person including specific detail on how these concerns were addressed.	Section 16.5
•	been made to the proposal.	
Со	nsideration of public representations from Draft EIS notification	Outcomes from public
The issu The rela	e revised EIS must include a consultation report outlining the representations received, ues raised in the representations and a response to the issues and values identified. a summary response must clearly identify the representation(s) to which the responses te.	notification of the draft EIS will be provided in Section 16.5.4.
Red	commendations	
Pro offs moi	vide a summary of any commitments to impact avoidance, mitigation measures, etting measures and other actions within the EIS. Describe the monitoring parameters, nitoring points, frequency, data interpretation and reporting proposals.	Chapter 18
Oth	er relevant information	
The sec in th noti mai will	e proponent may wish to include issues outside the scope of the EIS as a separate tion of the EIS. This allows the proponent to identify matters not required to be addressed he EIS, but that would be subject to development assessment consideration and fication. This can provide additional context for members of the public regarding hagement of environmental issues, by ensuring that the public is aware that these issues be addressed in the detailed design of the proposal.	Not applicable
Ref	erences	
A re	eference list using standard referencing systems must be included.	References
Red	quired appendices	
Sco	pping document for the EIS	
A c app sho	opy of the scoping document should be included in the EIS. Where it is intended to bind endices in a separate volume from the main body of the EIS, the scoping document uld be bound with the main body of the EIS for ease of cross-referencing.	Appendix A
Sco	pping Document reference	
Incl the	ude a table that cross-references the EIS to the scoping document. If the EIS addresses scoping document in multiple places, then this must be also referenced.	Appendix B
Pro	ponent's environmental history	
Pro of tl	vide details of any proceedings under a Commonwealth or Territory law for the protection ne environment or the conservation and sustainable use of natural resources against:	
•	The person proposing to take the action.	Appendix C
•	For an action for which a person has applied for a permit, the person making the application.	
If th cor to s	e person proposing to take the action is a corporation, then provide details of the poration's environmental policy and planning framework. Enough information is required atisfy s136(4) of the EPBC Act.	



Rec	juirement	Location in EIS		
Info For • •	information sources information given the following must be stated: The author or any reports or studies. The publication date. The source of the information. How recent the information is (i.e. when a study was conducted or when primary sources were produced). How the reliability of the information was tested. What uncertainties (if any) are in the information.	Appendix D		
<b>Stu</b> The exp	<b>dy team</b> qualifications and experience of the study team and specialist sub-consultants and ert reviewers must be provided.	Appendix E		
Spe All r incl	ecialist studies reports generated based on specialist studies undertaken as part of the EIS are to be uded as appendices.	Appendix F		
Res Any obta	earch proposals for researching alternative environmental management strategies or for aining any further necessary information should be outlined in an appendix.	Not applicable		
Atta	achment A			
Cor	Commonwealth Government requirements			
Des The •	<ul> <li>cription of the project</li> <li>environment impact statement (EIS) must include:</li> <li>The title of the action and the full name and postal address of the designated proponent.</li> <li>The location, boundaries, size (in hectares) of the proposed action area and the disturbance footprint, including the underground cabling connecting the BESS to the Transgrid Stockdill Substation across Block 1634 and Block 1635, and the access road from Stockdill drive.</li> <li>A description of all components of the proposed action, including the anticipated timing and duration of all construction, operational and (if relevant) decommissioning components of the action, and their precise locations.</li> </ul>	The title of the Proposal and proponent contact details are provided in <b>Chapter 1</b> . Proposal details are provided in <b>Chapter 2</b> .		
Fea Any • •	sible alternatives feasible alternatives to the action to the extent reasonably practicable, including: If relevant, the alternative of taking no action. A comparative description of the impacts of each alternative on listed threatened species and communities, and listed migratory species. Sufficient detail to make clear why any alternative is preferred to another. Short, medium and long-term advantages and disadvantages of the options must be discussed.	Section 2.4		
Mat The sigr •	ters of National Environmental Significance (MNES) EIS must provide information of the impacts to any MNES identified as potentially being ificantly impacted by the proposed action, including: <i>White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived native</i> <i>Grassland</i> Ecological Community (Box-gum woodland) – critically endangered. <i>Natural Temperate Grassland of the South Eastern highlands</i> – critically endangered. Golden Sun Moth ( <i>Synemon plana</i> ) – critically endangered. Pink-Tailed Worm-Lizard ( <i>Aprasia parapulchella</i> ) – vulnerable.	Chapter 5		



Re	quire	ement	Location in EIS
• Not cor pro cor imp (e.g not For	Sup te: The nmut pone nmut pacte g. the affe	berb parrot ( <i>Polytelis swainsonii</i> ) – vulnerable. The above list may not be a complete list of listed threatened species and ecological inities that will or are likely to be impacted by the proposed action. It is the ent's responsibility to ensure that any listed threatened species and ecological inities at the time of the controlled action decision, which will or are likely to be d by the project, are assessed for the Minister's consideration. Any listing events e listing or up-listing of a species) that occur after the controlled action decision do ct the assessment and approval process. h MNES the following information must be provided:	
•	A d abo	escription of any potential MNES or their habitat (including but not limited to those ove) that occur in the proposed action area and adjacent areas.	
•	Pro mu det	vide details of the scope, methodology, timing, and effort of field surveys (which st be undertaken by qualified species experts with demonstrated experience in ecting the listed threatened species and ecological communities) including:	
	0	How surveys were undertaken in accordance with relevant Commonwealth, State guidelines or best practice survey guidelines at the time of the surveys.	
	0	If relevant, the justification for divergence from relevant Commonwealth, State guidelines or best practice survey guidelines at the time of the surveys.	
•	For like limi	listed threatened species and ecological communities that have the potential, or are ly, to be present at and in the vicinity of the proposed action area, including but not ted to those listed above, this section must provide the following:	
	0	Information on the abundance, distribution, ecology and habitat preference of the species or communities.	
	0	Quantification of the extent of habitat and (if known) the number of individuals present, or historical patterns of use on, and surrounding, the development footprint (including maps identifying known or potential habitat).	
	0	Assessment of the quality and importance of known or potential habitat for the species or communities within the proposed action area and surrounding areas.	
	0	Information detailing known populations or records within at least five kilometres of the development footprint and, if known, the size of these populations.	
	ο	This habitat assessment must consider the information in the Species Profile and Threats (SPRAT) Database and relevant departmental documents, or justification where it might deviate from those documents. At a minimum, it should identify specific habitat requirements for the species or ecological communities, discuss relevant existing threats, and consider the regional context of habitat within the broader landscape.	
Imp	pacts	5	
•	Des cor poli Pro fou http ma	scribe and assess the impacts (direct and indirect) to listed threatened species and nmunities giving consideration to the SPRAT Database and relevant departmental icies and guidelines, including the <i>Significant Impact Guidelines 1.1: Environment</i> <i>tection and Biodiversity Conservation Act 1999</i> (2013). These guidelines can be nd at the following website: b://www.environment.gov.au/epbc/publications/significant-impact-guidelines-11- tters-national-environmental-significance.	Section 5.4
•	Thi	s must include but not be limited to:	
	0	A detailed assessment of direct and indirect impacts on area of habitat and populations of listed threatened species during pre-construction, construction, and operation.	
	0	A detailed assessment of the nature and extent of the likely short-term and long- term relevant impacts.	
	0	An assessment of the impacts on the site's functionality as a habitat corridor.	





Requirement			Location in EIS
Mit	igati	on measures	
•	The the on l	EIS must include detailed descriptions of measures proposed to be undertaken by proponent to avoid, mitigate and manage relevant impacts of all stages of the action isted threatened species and communities.	
•	Spe sub eler	cific and detailed descriptions of proposed measures must be provided and stantiated, based on best available practices, and must include the following nents:	
	0	An assessment of the predicted effectiveness and environmental outcomes of the proposed measures, including details of any baseline data or proposed monitoring required to demonstrate progress towards achieving these outcomes.	
	0	Any statutory or policy basis for the proposed measures, including reference to the SPRAT Database and relevant approved conservation advices, and a discussion on whether the proposed measures are consistent with relevant recovery plans and threat abatement plans.	Section 5.5
	0	Details of ongoing management, including monitoring programs to support an adaptive management approach and determine the effectiveness of the proposed measures.	
	0	Information on the timing, frequency and duration of the measures to be implemented.	
	0	The name of the agency responsible for endorsing or approving each measure or monitoring program.	
•	The are exp Wh doc dev	EIS must identify and address cumulative impacts, where potential project impacts in addition to existing impacts of other activities, (including known potential future ansions or developments by the proponent and other proponents in the vicinity). ere relevant to the potential impact, risk assessment must be conducted and umented. The risk evaluation must include known potential future expansions or elopments by the proponent and other proponents in the vicinity.	Section 5.4.7
Offsets			
•	Afte pro thre	er consideration of proposed avoidance, mitigation and management measures, vide an assessment of the likelihood of residual significant impacts on relevant listed eatened species and ecological communities.	Section 5.7
•	The rele Act	EIS must provide a clear and definitive conclusion of residual significant impacts on vant listed threatened species and ecological communities to align with the EPBC Environmental Offsets Policy (2012).	
Sta	tuto	ry requirements	
•	Wh app	ere relevant, the EIS, must discuss how the proponent has had regard to relevant roved conservation advice/s, recovery plan and relevant threat abatement plans	
•	The sec	e following ecologically sustainable development principles, as defined in Part 1, tion 3A of the EPBC Act, should be considered in the EIS documentation:	Relevant conservation
	0	Decision-making processes should effectively integrate both long-term and short- term economic, environmental, social and equitable considerations.	advices, recovery plans and threat abatement
	0	If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.	Chapter 5. The principles of ESD
	0	The principle of inter-generational equity – that the present generation should ensure the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.	nave been considered in Section 3.5.
	0	The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.	
	0	Improved valuation, pricing and incentive mechanisms should be promoted.	





Requirement			Location in EIS
En	viron	mental history	
•	The deta law nate	e EIS must include the environmental record of the proponent. This must include ails of any past or present proceedings under a Commonwealth, State or Territory for the protection of the environment or the conservation and sustainable use of ural resources against:	
	0	The person's history in relation to environmental matters.	
	0	If the person is a body corporate – the history of its executive officers in relation to environmental matters.	Appendix C
	0	If the person is a body corporate that is a subsidiary of another body or company (the parent body) – the history in relation to environmental matters of the parent body and its executive officers.	
•	lf th env	e person proposing to take the action is a corporation, details of the corporation's ironmental policy and planning framework must also be included.	
Info	orma	tion sources provided in the EIS	
For	info	rmation given in the EIS, the draft must state:	
•	The	e source of the information.	Appendix D
•	Hov	w recent the information is.	Appendix D
•	Hov	w the reliability of the information was tested.	
•	Wh	at uncertainties (if any) are in the information.	
Сог	nclu	sion	
An overall conclusion as to the environmental acceptability of the proposal should be provided, including discussion on compliance with principles of ESD and the objects and requirements of the EPBC Act. Reasons justifying undertaking the proposal in the manner proposed should also be outlined.			Chapter 19
Mea the	asure relat	es proposed or required by way of offset for any unavoidable impacts on MNES, and tive degree of compensation, should be restated here.	
Ent	ity r	equirements	
AC	ΓEn	nergency Services Agency	
AC	ΓEm	nergency Services Agency has provided the following advice:	
•	AC the is p isol	TF&R would like to see the emergency management and response procedures for proposal addressed to ensure adequate access, water supply and defendable space rovided for emergency operations in and around the development as well as ation and monitoring procedures.	Chapter 15
•	Cor wou	nsiderations around toxic plume modelling and potential impact on the urban area uld also be beneficial.	
•	Bus mea	shfire spread from and to the site is also a consideration and appropriate protection as ures will need to be addressed with a bushfire risk assessment.	
AC	Г Не	alth	
AC	Г Не	alth has provided the following advice:	
•	The ass the Um	e draft EIS or Development Application undertake further investigation and essment of the risks identified in the Preliminary Risk Assessment, contained within report titled, "Application for EIS Scoping Document Supporting Document", by welt Environmental & Social Consultants, dated June 2021.	Throughout this EIS
•	The Env Une	HPS supports the development and implementation of a Construction vironmental Management Plan, an Environmental Management Plan and an expected Finds Protocol.	
•	lf th out	le proposed "water tank" is a rainwater tank, the applicant is advised any taps or lets supplied by the rainwater tank must be clearly and appropriately identified.	



Re	quirement	Location in EIS
AC	Г Heritage Council	
The	Heritage Council (the Council) has provided the following advice:	
•	The Council advises that existing CHA (Cultural Heritage Assessment) letter must be revised to address the previous Council advice issued on the 28 June 2021. The following is required for the EIS:	
	<ul> <li>Survey of the parts of the project area that have not yet been subject to heritage assessment. This is to include any possible footprints for the access road and any cabling infrastructure footprints. The results are to be included in a revised and expanded CHA. Any additional surveys should include a minimum of two weeks' notice to RAOs (Representative Aboriginal Organisations) and follow up phone calls where required.</li> </ul>	
	<ul> <li>Additional information provided in the revised letter CHA indicated that RAOs were provided with limited notice about the original survey and had not had an opportunity to comment on either version of the letter CHA. The RAOs must be afforded an opportunity to comment on the letter CHA after assessments of the access road and cabling infrastructure footprints have been included. This consultation should, at a minimum, include provision of the revised letter CHA for a two-week period and follow up phone calls if no response is provided.</li> </ul>	Chapter 8
	<ul> <li>If any Aboriginal places are recorded in subsequent surveys the letter CHA will need to be upgraded to a complete CHA report in line with existing policy requirements, and further consultation with RAOs will be required.</li> </ul>	
	<ul> <li>In the event that the revised letter CHA identifies that the proposal may damage Aboriginal places or objects, the applicant should consider design changes and management controls to avoid heritage impacts. Where this is not reasonably practicable, approval for heritage impacts would need to be sought under the <i>Heritage Act 2004</i>, in the form of a Statement of Heritage Effect application.</li> </ul>	
Со	nservator of Flora and Fauna	
The	Conservator of Flora and Fauna has provided the following advice:	
<u>Sto</u>	rmwater runoff	
•	Further consideration of leaching/runoff of chemicals into the receiving environment is required. Particularly, this risk should be directly evaluated, and advice provided on whether an infrastructure solution to protecting stormwater runoff from contamination is required, noting how close the site is the river.	
Eco	logical investigations	
The	EIS will need to include:	Stormwater runoff is
•	An assessment of the distribution of Yellow Box – Blakely's Red Gum Grassy Woodland (Box-Gum Woodland) endangered ecological community on the site (both Nature Conservation Act and EPBC listings).	considered in Chapter 6. A summary of the
•	An assessment of the distribution and condition of Pink-tailed Worm-lizard (PTWL) habitat and condition.	ecological investigations undertaken for the Proposal and the
•	A survey for Golden Sun Moth (GSM) to determine if this species is present on site, and if so, an assessment of its distribution and abundance. The attached report states that the GSM is considered to be unlikely to occur at the site and therefore the project is unlikely to have an adverse impact on the species. Further and strengthened justification this is required as GSM have been recorded 1.5 km east of the site and the site supports key food species, including <i>Austrostipa</i> and <i>Rytidosperma</i> . Targeted surveys should be undertaken to confirm the species status at the site.	proposed offset approach is provided in <b>Chapter 5</b> . Bushfire management is discussed in <b>Chapter 15</b> .
•	An offset proposal for residual impacts on any threatened species or communities; if this involves private land it must address how it will achieve protection in perpetuity.	
•	Recommendations on how the offset area can improve the habitat quality for the other threatened species that use the area but are not deemed to be significantly impacted (Superb Parrot, Little Eagle).	
Bus	hfire management	
•	As identified in the Preliminary Risk Assessment the risk of bushfire during different phases of the development will need to be considered.	



Re	quirement	Location in EIS
•	This will include the need for Asset Protection Zones around the development to provide an area of advantage for bushfire suppression. This will increase the impact of the development on the local environment including flora and fauna which will need to be considered in those sections. The EIS should outline how these zones will be managed by the proponent; will they arrange to acquire the surrounding land and manage it themselves, or enter into agreement with the Lessee to manage the zones? By what means will assurance be given that APZ's will be appropriately maintained?	
•	The project area on the sketch plans does not reflect the space required for the Asset Protection Zones. This is required to be shown.	
•	The site operations procedures should identify policies for the evacuation of the site personnel during days of significant fire danger or where a threat becomes apparent.	
•	The development could result in bushfire ignition if equipment malfunctions. Details are required on the measures to prevent the spread of fire from the site into the adjacent area.	
Pre	viously provided comments	
•	The Proposed Action will require the removal of up to 5 ha of moderate quality derived native grassland associated with critically endangered Box-Gum Woodland. The impact is considered to be significant due to a reduction in extent of the Critically Endangered Ecological Community (CEEC) and increase in fragmentation of the CEEC. Given the significant impact of the proposed development – the proponent must demonstrate that other options (e.g. other sites, layouts and designs) have been explored to avoid this impact.	
•	All connections, including access and infrastructure from Stockdill drive and the substation to the BESS must be considered as part of the assessment.	
•	In addition to moderate and low quality Box-Gum Woodland, the site also supports PTWL habitat and three large, mature eucalypts. The proponent proposes to protect all PTWL habitat and mature trees. If the development is approved - all these values will need to be fenced off with a sufficient buffer. The proposed 2 m buffer around the tree in the eastern section of the site is insufficient and the buffer for all mature trees must be equal to the tree length/height. There is a belief that roots tend to stay under a tree's leaf canopy. This seldom happens. Trees have roots reaching well beyond their individual branches and leaves in search of water and nutrients. Studies have shown that roots grow laterally to a distance equal to the height of the tree.	
•	A rigorous weed control program will need to be developed and implemented to target African lovegrass infestations particularly within remaining Box-Gum Woodland, PTWL habitat and surrounding areas.	
•	Potential indirect offset options could include large scale (e.g. 15 ha) Box-Gum Woodland understorey restoration project within in degraded Box-Gum Woodland areas of an existing Nature reserve. This would require a minimum of 50 kg of native grass and forb seed per ha, site preparation (e.g. weed control and/or scraping and spoil management) and a 5 year maintenance schedule and ongoing maintenance budget. More details can be provided if required.	
Ico	n Water	Risks associated with
Ico Env	n Water have compiled the following comments: /ironment team	tire and thermal runaway are discussed in
•	Bushfire risk from construction, ongoing maintenance and operation has been identified as a significant risk in this report. Icon Water should be provided the bushfire management plan which is to be developed later. LMWQCC is a critical ACT asset and bushfire is a significant risk to the operation of such infrastructure. This will allow Icon Water to assess the risks with the development and the plant itself. I would also suggest Icon Water be involved in the discussions with ACT Fire and Rescue and the proponent regarding bushfire as Icon Water are a maior stakeholder.	Chapter 15. The battery make and model will be selected during detailed design and cannot be confirmed at this stage of the Proposal's development.
	<ul> <li>Failure of one Lithium cell within battery systems such as the one proposed can cascade into hundreds of each of the individual cells within the larger battery pack. These lead to flammables gasses emitted and potential explosions. Such fires are hard to extinguish as they are gas fires and may take several days to extinguish.</li> </ul>	Development of the TMP will occur following environmental and planning approvals and prior to construction.





Red	quire	ment	Location in EIS			
		Additionally, they have the potential to emit toxic fumes during a fire.	Icon Water will be			
		<ul> <li>A recent case study in Victoria; a large scale battery system caught fire (same company proposing this system – Neoen) which could be cause for concern with regards to bushfire and the LMWQCC. The surrounding land is dry grassland which if ignited may lead to rapid fire spread to the LMWQCC.</li> </ul>	consulted during this process.			
•	Cor are pote	tractor to provide specifications about the battery systems (I can only presume they 'Tesla Megapacks' – but Icon Water should know for sure) to be used regarding ential for contamination, leaking of battery acid and potential impacts to the adjacent WQCC.				
	0	Australian Standards would dictate that anything like this is bunded completely but we should know the specifications of the battery system to ensure that it is covered.				
•	Foll use sho	ow up with the contractors traffic management plan to ensure compatible with the s of the LMWQCC; there will be increased traffic along Stockdill Drive. Icon Water uld be consulted during this process.				
Day		oor Sorvigoo	Management of waste			
The The	ere is ere is	no sewer main servicing the block and it may not be possible to service the block. an existing DN150 water main along Stockdill drive.	(including human waste) is discussed in <b>Chapter 13</b> .			
<b>Bui</b> Any acc	Iding wor epta	g Approvals k(s) that is likely to impact on the Icon Water infrastructure must have Icon Water nce prior to any work being undertaken.	Potential impacts to existing utilities are discussed in <b>Section 15.6</b> .			
Tra	de V	Vaste				
•	All o sew info Wa	connections to sewer that are classified as Liquid Trade Waste (any non-domestic vage) must apply to Icon Water for approval before connection to sewer. Further rmation on acceptance requirements for liquid trade waste can be found on the Icon ter website (www.iconwater.con.au\tradewaste).	The Proposal is not proposing to connect to			
•	In th disc may is re	his circumstance at a minimum Territory Battery will need Icon Water Approval to charge to sewer, as such a trade waste application must be submitted. A consultation / be required to ascertain the likely discharge and discuss what if any pre-treatment equired or if some waste must be collected for off-site disposal.	network. Refer to Chapter 13 for more information.			
•	lcor trad	n Water Liquid Trade Waste team contact information is Email: le.waste@iconwater.com.au Phone 02 6248 3222.				
Transport Canberra and City Services Directorate						
тс	CS h	as provided the following advice:	considered in			
•	TCCS can provide in principle support for this project, however request that the following conditions to be addressed at a later stage of the project:		Chapter 5. A formal Tree Assessment has			
	0	EIS Scoping Document: Please include Verge Trees (outside the block boundary) as a line item under Construction and Operational Impacts.	Proposal and is provided at <b>Appendix F2</b> . Note			
	0	The proposed 6 m wide access road be routed to avoid existing trees on the verge. All site works will be outside of the Tree Protection Zone (TPZ) and in accordance with AS4970.	that most species names in this report have not been verified by an			
	0	TCCS request a formal Tree Assessment of all trees by a certified arborist during the detailed design phase, with all trees numbered for reference.	Umwelt ecologist. Neoen has committed to			
	0	TCCS expect that trees are managed with strict protocols outlined in a Landscape Management and Protection Plan (LMPP) with Tree Management Notes. LMPP approval must be obtained Development Coordination Branch TCCS. This plan is to be implemented before the commencement of works, including earthwork on the site and is to be in accordance with TCCS Guidelines for the Protection of Public Landscape Assets Adjacent to Development Works-REF-04.	the preparation of a SWMP for managing soil and water impacts of the Proposal, which would be a sub-plan to the CEMP. Refer to Section 18.1 for more			
	0	A Soil and Erosion Control Plan must be submitted to TCCS to assess any possible impact on the surrounding land uses.	information.			



Red	quire	ement	Location in EIS			
	0	A Construction and Environmental Management Plan must be provided indicating the impact of construction, heavy vehicle movements during the construction, and conflict with vulnerable road users and potential environmental impact as a result				
	0	TCCS will assess the access arrangement and traffic issues at DA stage.				
Uti	Utilities Technical Regulation					
Util	ities	Technical Regulation has provided the following advice:				
•	UT info typ follo with	R have reviewed EIS Scoping Document – EIS202100027 and supporting prmation. The prosed project is for a large grid scale BESS and associated network e substation. As such, the project proponent needs to outline what standards will be owed for design, construction, operation and maintenances phases e.g. compliance in AS 2067 is required; etc.				
•	Als ado For	o appropriate for development and operation of such a large project is commitment to option of AS 5577 for identifying and managing safety issues through the conduct of mal Safety Assessments (FSA).				
•	Thi	s will help address the following identified deficiencies in the current proposal:				
	0	Appendix A – Preliminary Risk Assessment; This has not adequately considered significant issues such as, but not limited to:				
		Fire & Explosion events during construction (including during commissioning tests) and operation phases of the project related to the volatile Li-ion batteries and substation transformers. Outline of mitigation measures to be incorporated such as: BESS module segregation, explosion containment, fire suppression and firefighting, monitoring & detection systems for evolving faults and associated auto and manually initiated isolation schemes.	Standards that the Proposal will comply with are listed in <b>Appendix F12</b> . Risks and mitigation and management measures associated with fire, electrical hazards and utilities are discussed in <b>Chapter 15</b> . Contamination is discussed in <b>Chapter 7</b> . Waste management is discussed in <b>Chapter 13</b> .			
		<ul> <li>Impact of Transformer large oil leaks and associated environmental contamination and fires. Mitigation measures such as oil containment are required.</li> </ul>				
		The issues identified in the Decommissioning Phase under the Waste category, would also be relevant during the Operation phase (e.g. recycling of BESS components). Furthermore, the Waste consequence has been assess as Minor but a higher consequence rating is warranted if one considers the consequences of say: abandoned transformer oil (possible fire, leaks causing environmental damage); toxic air pollution from abandoned Li-ion battery fires; etc.				
		<ul> <li>Safety measures to avoid hazards arising from inadvertent excavation and damage of HV cables external to the site e.g. Those connecting to Transgrid substation.</li> </ul>				
		There is no consideration of Earth Potential Rise (EPR) and associated Step & Touch potential hazards, nor Electromagnetic Induction (EMI) hazards to any nearby long metallic structures e.g. pipes, fences, telecommunication circuits, etc. UTR technical codes, relevant Australian and International standards, and industry codes/guidelines need to be observed to avoid these electrical safety hazards (e.g. AS 2067, AS EG0, AS EG1, AS/NZS 4853, HB 101 and HB 102, IEEE 80).				
	0	The proposed 2.4 m chain wire fence is not considered sufficiently robust /secure and electricity network industry practice is to provide 3 m high palisade or equivalent type security fence.				
	0	If the proposed 20,000 litre water tank is intended for firefighting purposes, this alone is unlikely to be adequate for the installation size. Also, what measures are there for ensuring the tank is kept full. Will a suitably sized fire hydrant capacity water main be available onsite.				
	0	In the project outline fig 2.2, it appears that there is no or very limited access between battery/inverter modules due to the high density layout. This is not conducive for limiting fire spread, firefighting access, explosion segregation, maintenance and module replacement access – more information should be provided that addresses these issues.				