

Planning and Development (Environmental Impact Statement Assessment Report – ACT Second Electricity Supply Project) Notice 2018

Notifiable instrument NI2018–603

made under the

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

1 Name of instrument

This instrument is the *Planning and Development (Environmental Impact Statement Assessment Report – ACT Second Electricity Supply Project) Notice 2018*.

2 Commencement

This instrument commences on the day after its notification day.

3 Environmental Impact Statement assessment report

The planning and land authority has prepared the Environmental Impact Statement (EIS) assessment report for the ACT Second Electricity Supply Project as set out in the schedule.

Note 1 A copy of the assessment report can be obtained from the planning and land authority website at: http://www.planning.act.gov.au/topics/design_build/da_assessment/environmental_assessment/environmental_impact_statements

Note 2 Under section 225A(5) of the Planning and Development Act 2007, the EIS assessment report expires 18 months after its notification day

Ben Ponton
Chief Planning Executive
29 October 2018

ENVIRONMENTAL IMPACT STATEMENT ASSESSMENT REPORT

ACT SECOND ELECTRICITY SUPPLY PROJECT

SEPTEMBER 2018

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

Ref no: 201700005

Project: ACT Second Electricity Supply Project

Location: Stockdill Drive Belconnen

Proponent: TransGrid and Evoenergy

Applicant: WSP Australia Pty Limited

As required by section 225A of PD Act, the planning and land authority has prepared this EIS Assessment Report for the Minister for Planning and Land Management. This report confirms that the Authority is satisfied that:

- each matter raised in the scoping document for this proposal is addressed;
- there is an account of timely representations; and
- the EIS demonstrates how timely representations have been taken into account.

This report has also been prepared for the Commonwealth Department of the Environment and Energy in accordance with the Assessment Bilateral Agreement between the between ACT and Commonwealth Governments (June 2014).

Table of Contents

1. Introduction	2
1.1. Project description	2
1.2. Project background	3
1.3. Project location	3
1.4. Alternatives to the project	5
2. The environmental impact assessment process	6
2.1. Impact track triggers	6
2.2. EIS process	7
2.3. Scoping Document	8
2.4. Draft EIS	9
2.5. Revised EIS	11
2.6. Giving the EIS to the Minister for Planning and Land Management	12
2.7. Lodging a development application	12
2.8. Commonwealth environmental impact assessment requirements	12
2.9. Documentation referenced in this report	13
3. Assessment of impacts	14
3.1. Landscape and Visual	14
3.2. Terrestrial Flora and Fauna	18
3.3. Hazard and risk	21
3.4. Traffic and Transport	24
3.5. Noise and Vibration	27
3.6. Indigenous Heritage Sites	29
3.7. Water quality and hydrology	31
3.8. Soils and Geology	33
3.9. Climate Change and Air Quality	35
3.10. Matters of National Environmental Significance (MNES)	38
3.11. Socio-economic and health	47
3.12. Environmental Management Plan	47
3.13. Offsets	48
3.14. Conclusion of impact assessment	48
4. Policy considerations	49
4.1. Territory Plan 2008	49

4.2.	National Capital Plan (NCP).....	49
4.3.	AP2 – ACT Climate Change Strategy	49
4.4.	Other policies addressed in the EIS.....	50
5.	Other EPBC Act considerations	50
6.	Other considerations	51
6.1.	Principles of ecologically sustainable development	51
6.2.	Proponent’s environment history.....	52
7.	Recommended conditions	53
8.	Recommended action on this EIS	58
	Appendix A – Final scoping document.....	59
	Appendix B – Cross reference table between EIS and the final scoping document.....	61
	Appendix C – Commonwealth referral decision (2016/7784)	63
	Appendix D – Section 224 notice	65

Figures

Figure 1 – Location plan for ACT Second Electricity Supply	4
Figure 2 - The EIS process	7

Tables

Table 1 - Legal land description and tenancy	4
Table 2 - Impact track triggers per Schedule 4 of the PD Act	6
Table 3 - Entity comments on scoping document application.....	8
Table 4 - Summary of entity comments on the draft EIS.....	10
Table 5 - Avoidance and mitigation measures (landscape and visual)	16
Table 6 - Scoping document requirements (Landscape and visual)	17
Table 7 - Avoidance and mitigation measures (Terrestrial flora and fauna)	20
Table 8 - Scoping document requirements (Terrestrial flora and fauna)	20
Table 9 - Avoidance and mitigation measures (Hazards and risk).....	22
Table 10 - Scoping document requirements (Hazards and Risk)	24
Table 11 - Avoidance and mitigation measures (Traffic and Transport)	26
Table 12 - Scoping document requirements (Traffic and Transport)	27
Table 13 - Avoidance and mitigation measures (Noise and vibration).....	28
Table 14 - Scoping document requirements (Noise and vibration).....	29
Table 15 - Avoidance and mitigation measures (Indigenous heritage sites)	30
Table 16 - Scoping document requirements (Indigenous heritage sites)	31
Table 17 - Avoidance and mitigation measures (Water quality and hydrology)	32
Table 18 - Scoping document requirements (Water quality and hydrology)	33
Table 19 - Avoidance and mitigation measures (Soils and geology)	34

Table 20 - Scoping document requirements (Soils and geology)	35
Table 21 - Avoidance and mitigation measures (climate change and air quality)	36
Table 22 - Scoping document requirements (climate change and air quality)	38
Table 23 - Avoidance and mitigation measures (MNES)	44
Table 24 - Scoping document requirements (MNES)	46
Table 25 - Draft Conditions of Development Approval for ACT Second Electricity Supply Project	54

Glossary and definitions

Term	Definition
ACT	Australian Capital Territory
The Authority	The planning and land authority
CEMP	Construction environmental management plan
DA	Development application
DoEE	Commonwealth Department of the Environment and Energy
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
EPA	Environment Protection Authority
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cth)
EPSDD	Environment, Planning and Sustainable Development Directorate
ESA	Emergency Services Agency
MNES	Matter of National Environmental Significance (as per the EPBC Act)
NC Act	Nature Conservation Act 2014
NCA	National Capital Authority
PD Act	Planning and Development Act 2007 (ACT)
PD Regulation	Planning and Development Regulation 2008 (ACT)
TCCS	Transport Canberra and City Services

1. Introduction

This report is to the ACT Minister for Planning and Land Management on the assessment of the Environmental Impact Statement (EIS) in relation to the ACT Second Electricity Supply Project.

The project is a development of a type that meets section 123 of the PD Act as it involves a matter mentioned in Schedule 4 of the PD Act, and therefore requires an EIS. Development applications (DAs) for this project have been lodged as a concurrent application and will be determined once the EIS is complete under the PD Act.

1.1. Project description

WSP Australia Pty Limited (WSP) is acting as the applicant for this project on behalf of TransGrid and Evoenergy, the proponents for this project.

The proposal is for the construction of a new geographically separate substation, near Stockdill Drive, West Belconnen and associated transmission line works connecting electrical infrastructure and the Canberra Substation on Parkwood Road, Holt. These works will be undertaken by TransGrid and Evoenergy as described below.

TransGrid

The parts of the Project to be delivered by TransGrid include the establishment of a 330/132 kV substation and associated 330 kV transmission line works proximate to Stockdill Drive in the ACT.

The key features of TransGrid's proposed components are:

- Construction and operation of the 330/132 kV Stockdill Substation, which includes:
 - 330 kV switchyard accommodating three 330 kV transmission lines
 - a 330/132 kV transformer accommodating 132 kV feeders
 - substation communications systems
 - substation protection systems
 - supervisory control and data acquisition (SCADA) systems
 - substation surveillance systems
 - alternating current (AC) auxiliary supply systems
 - TransGrid property boundary fence (around full acquired land parcel)
 - transmission line works to connect the proposed substation to TransGrid's existing 330 kV
 - transmission lines and the proposed 330 kV transmission line (refer below).
- Construction and operation of a 330 kV transmission line between the proposed Stockdill Substation and the existing Canberra 330/132 kV substation.
- Diversion of approximately 850 metres of existing TransGrid transmission lines to the west of the existing Canberra 330 kV substation.
- Removal of decommissioned sections of transmission lines, existing transmission line towers, conductors and associated foundations and other wiring.
- Decommissioning and removal of existing transformers no. 2 and no. 3 from Canberra Substation.
- Line rearrangements, bypasses and connection of the new transmission line to the existing Canberra Substation.
- Installation of optical ground wire (OPGW) for the new sections of proposed transmission line.
- Installation of a new utility connections including water and 11 kV electrical connections from existing supplies along Stockdill Drive (for elements such as lighting and control building facilities).
- Vegetation clearing and earthworks for the above works, suitable for a 330 kV transmission line easement width of up to approximately 60 metres.

- Establishment of access tracks to all new infrastructure, including the proposed substation.
- Adjustment of the current alignment of the existing Telstra infrastructure near the Stockdill Substation.

Evoenergy

The parts of the Project to be delivered by Evoenergy include the connection between the existing Evoenergy Canberra-Woden transmission line easement and the proposed TransGrid 330/132 kV Stockdill Substation (as described above).

The key features of Evoenergy's proposed component of the Project is summarised below:

- Construction and operation of a double-circuit 132 kV transmission line (approximately 2.5 kilometres) between the proposed Stockdill Substation and the existing Evoenergy Canberra-Woden transmission line easement to the east of the substation.
- Vegetation clearing and earthworks for the above works, suitable for a 132 kV transmission line easement of up to approximately 45 metres for the majority of the transmission line, expanding to approximately 50 metres where the transmission line connects to the proposed Stockdill Substation.
- Establishment of access tracks as required to the proposed pole structures.

1.2. Project background

The ACT's *Electricity Transmission Supply Code* reliability criteria requires TransGrid and Evoenergy to provide a secure electricity supply to the ACT through the provision of geographically separate and electrically independent 132 kV above supplies (TransGrid requirement) and alternative connection points to allow an ongoing electricity supply.

This proposal is to ensure the electricity supply for the ACT is at a level to meet the Code.

1.3. Project location

The EIS relates to land in Belconnen, ACT located at:

- Block 1462, Belconnen
- Block 1469, Belconnen
- Block 1559, Belconnen
- Block 1560, Belconnen
- Block 1582, Belconnen
- Block 1600, Belconnen
- Block 1606, Belconnen
- Block 1633, Belconnen (formerly Block 1605, Belconnen)
- Block 1634, Belconnen (former Block 1601, Belconnen)
- Block 1635, Belconnen (former Block 1601, Belconnen)
- Block 3, Section 118, Holt (formerly Block 16 (partial), Section 99, Holt)
- Block 2, Section 132, Holt (formerly Block 15 and 16 (partial), Section 99, Holt).

The land is zoned NUZ1 Broadacre, NUZ3 Hills, Ridges and Buffer Areas, RZ1 Suburban, RZ3 Urban Residential, PRZ1 Urban Open Space and PRZ2 Restricted Access Zone.

The project location is shown in Figure 1.

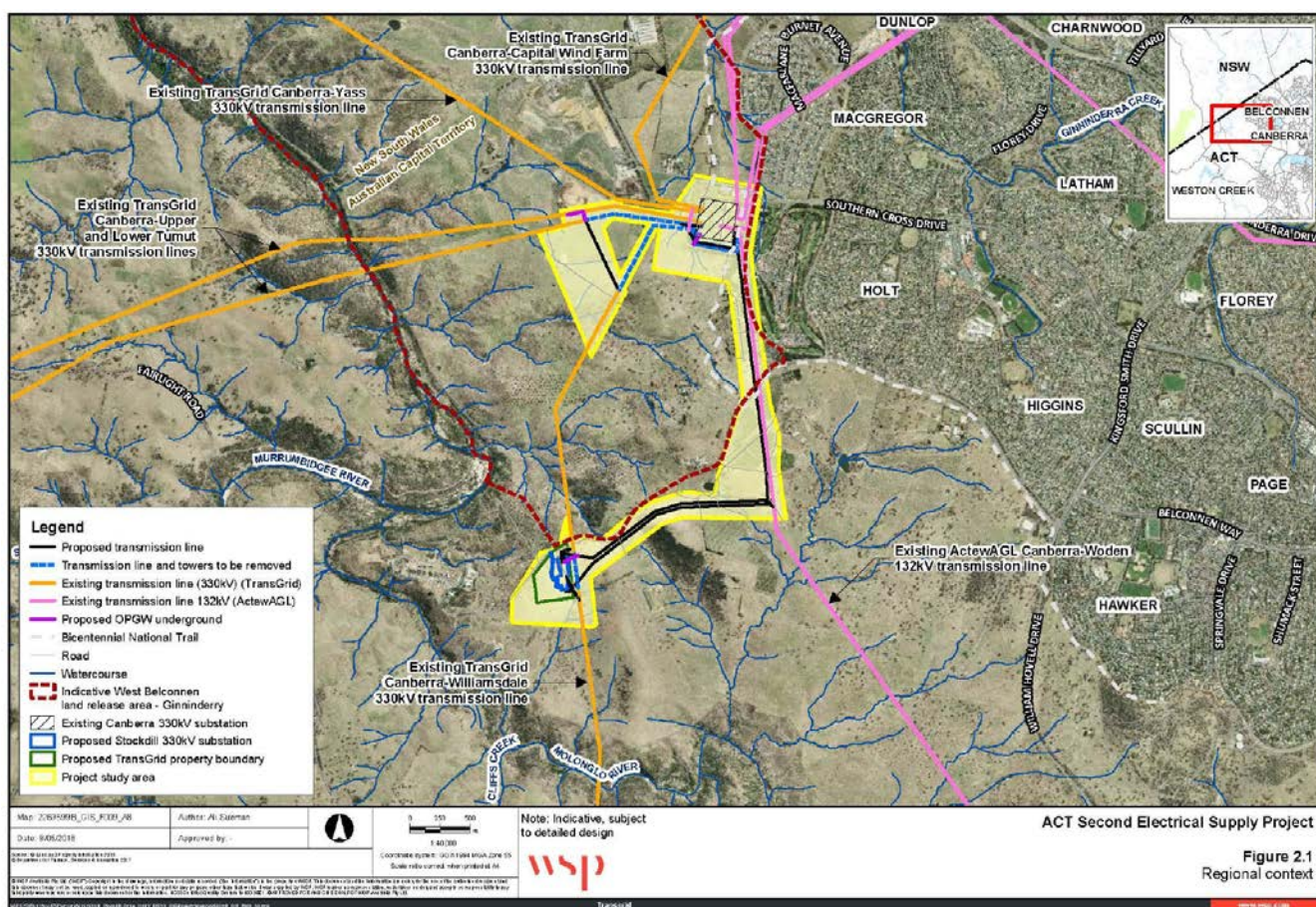


Figure 1 – Location plan for ACT Second Electricity Supply

1.3.1. Legal land description and tenancy

The ACT Second Electricity Supply will directly and indirectly affect 12 block(s). Table 1 shows the legal land description for each block affected by the proposal and the details of tenancy type and tenant.

Table 1 - Legal land description and tenancy

Block	Section	District/Division	Tenancy	Tenant
Directly affected lands				
1462		Belconnen	Unleased Territory Land	Parks and Conservation, EPSDD
1469		Belconnen	Unleased Territory Land	Parks and Conservation, EPSDD
1559		Belconnen	Leased Territory Land	Private Lessee
1560		Belconnen	Unleased Territory Land	TCCS
1582		Belconnen	Leased Territory Land	Private Lessee
1600		Belconnen	Unleased Territory Land	Suburban Land Agency
1606		Belconnen	Unleased Territory Land	Suburban Land Agency
1633		Belconnen	Unleased Territory Land	Suburban Land Agency
1634		Belconnen	Leased Territory Land	Private Lessee
1635		Belconnen	Leased Territory Land	Private Lessee
3	118	Holt	Leased Territory Land	Private Lessee
2	132	Holt	Leased Territory Land	Private Lessee

1.4. Alternatives to the project

The following three options have been considered as viable second electricity supply options in the ACT region in terms of issues such as cost, time, future integration and environmental impacts.

- 1) **Option 1** – Stockdill Drive alignment – Alternative A: The alignment for Option 1 provided an alignment parallel to Stockdill Drive in an easterly direction from the proposed Stockdill Drive Switching Station. At a point located approximately 200 metres east of the Billabong Aboriginal Development Centre, Option 1 would turn north-east, and continue to run parallel to Stockdill Drive before intersecting with the common alignment point within the existing Evoenergy Canberra-Woden transmission line easement, just to the south of the existing water filling supply point along Stockdill Drive.

The alignment for Option 1 would be approximately 2.15 kilometres in length. Option 1 would include the installation of up to three suspension towers and up to four tension towers, with heights ranging between approximately 45 and 50 metres.

- 2) **Option 2** – Stockdill Drive alignment – Alternative B: The alignment for Option 2 provided an alignment similar to that for Option 1, running parallel to Stockdill Drive from the proposed Stockdill Drive Switching Station. At the point where Option 1 would turn north-east, Option 2 would continue in a straight alignment and would intersect with the existing Evoenergy Canberra-Woden transmission line easement approximately 250 metres south of Option 1. From this point, Option 2 would follow the existing transmission easement to the common north-south corridor point.

The alignment for Option 2 would be approximately 2.21 kilometres in length. Similar to Option 1, Option 2 would include the installation of up to three suspension towers and up to four tension towers, with heights ranging between approximately 45 and 50 metres.

- 3) **Option 3** – Southern alignment option: The alignment for Option 3 provided an alignment substantially different for the proposed transmission line as it would be located approximately 750 metres to the south of Stockdill Drive. Option 3 would run east from the proposed Stockdill Drive Switching Station through Rural Block 1601, then north-east through Rural Blocks 1582 and 1600 before intersecting with the existing Evoenergy Canberra-Woden transmission line easement. Option 3 would intersect with the existing Evoenergy Canberra-Woden transmission line easement approximately 900 metres south of Option 1 and approximately 650 metres south of Option 2.

The alignment for Option 3 would be the longest of the alignment options, at approximately 2.95 kilometres in length. Option 3 would include the installation of up to five suspension towers and up to five tension towers, with heights ranging between approximately 45 and 50 metres.

The proponent considered the above options, with relevant stakeholders, taking into account a series of criteria and performance measures. The proposal as described in the application (Option 2) was determined by the proponent to be the best option as this option was considered to have a lesser visual impact and a reduced interference with the landscape.

2. The environmental impact assessment process

The environmental impact assessment process is used to identify, predict, plan for and manage the impacts of a development proposal before the proposal is considered for approval under the DA process. An Environmental Impact Assessment (EIS) process is required to be undertaken for projects in the impact track (unless the application is exempted under section 211 of the Act).

An EIS process is not an approval process but is to ensure that potential impacts and possible mitigation measures have been fully investigated and documented in accordance with the requirements of a scoping document issued under the PD Act. The EIS informs a subsequent DA that is lodged for the proposal and, if approved, will guide possible conditions or management strategies for the development prior, during or post construction. Figure 2 outlines the EIS process.

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* (the 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 ACT Second Electricity Supply is in the impact track as:

- the relevant development table states that the impact track applies;
- the proposal has been determined a controlled action under EPBC Act and a bilateral assessment has been enlivened; and
- the development is a kind mentioned in Schedule 4 of the PD Act. This proposal triggers the Schedule 4 items listed in Table 2.

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

Item Number	Description	Project Component
Part 4.2, item 2	<i>proposal that involves— (a) electricity transmission line construction, including additions or realignment works, outside an existing easement or exceeding 500m in length, that are intended to carry underground or above-ground transmission lines with a voltage of 132kV or more</i>	The Project is for construction of an electricity transmission line greater than 500 metres in length with a voltage of 132 kV or higher
Part 4.3, item 1	<i>proposal that is likely to have a significant adverse environmental impact on protected matters</i>	Possible impacts identified relating to protected species.
Part 4.3, item 2	<i>proposal involving— (a) the clearing of more than 0.5ha of native vegetation in a native vegetation area</i>	Approximately 1.1 hectares of native vegetation is proposed to be removed.

2.2. EIS process

The flowchart below outlines the EIS application process.

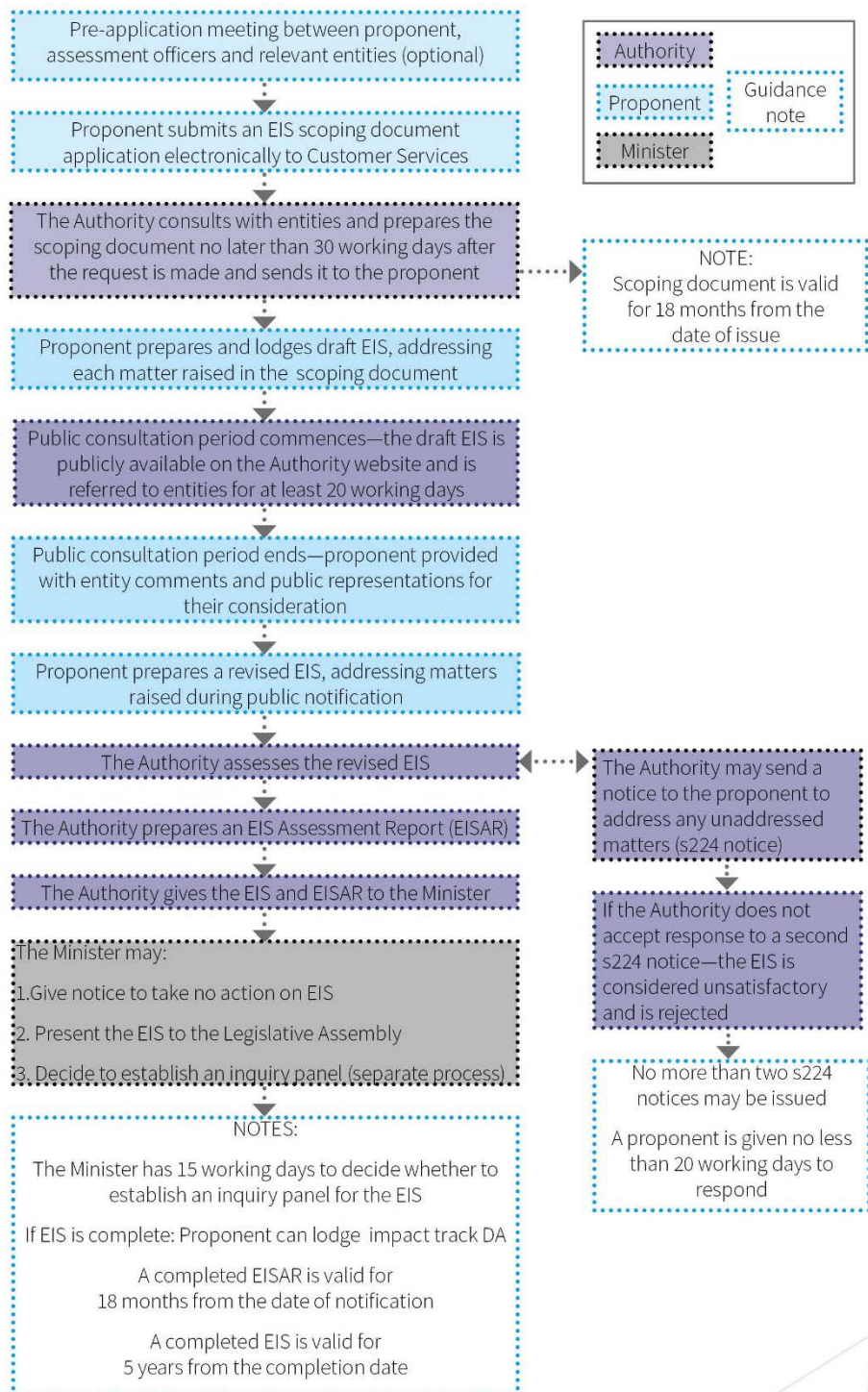


Figure 2 - The EIS process

2.3. Scoping Document

A scoping document is prepared to outline the contents of an EIS and areas of investigations and research required for the proposal. The planning and land authority (the Authority) within EPSDD prepares a scoping document in response to an application made for the proposal. In considering the contents of the scoping document, the Authority must consult with entities prescribed in section 51 of the *Planning and Development Regulation 2008* (**PD Regulation**) about the scoping document application.

On 27 February 2017, TransGrid/WSP lodged a request for a scoping document for an EIS pursuant to section 212(1) of the PD Act. The Authority referred the scoping document application to the entities inviting written comments. The entities were given 15 working days to provide comment. The consulted entities and date of their response are shown in Table 3.

Table 3 - Entity comments on scoping document application

Entity consulted	Entity response
Evoenergy	No comment
Icon Water	20/03/2017
Jemena	No comment
Conservator of Flora and Fauna	16/03/2017
Emergency Services Agency	No comment
Environment Protection Authority	No comment
ACT Heritage Council	31/03/2017
ACT Health	21/03/2017
TCCS	No comment
Environment Protection Policy	31/03/2017
Strategic Planning, EPSDD	21/03/2017
Belconnen Community Council	No comment
Land Development Agency	No comment
Riverview Group	No Comment
Utilities Regulation	No Comment
Sustainability and Climate Change	No Comment

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. Matters raised by entities were considered by the Authority and were incorporated into the preparation of the Scoping Document.

On 7 April 2017, the scoping document was issued by the Authority to the proponent pursuant to section 212(2) of the PD Act (**Appendix A**). 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.

The scoping document was notified on the ACT Legislation Register on 20 April 2017.

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

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
- 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 B**).

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 13 February 2018, WSP gave 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 March 2018 to 26 April 2018, being 35 working days. This is in accordance with sections 147AA and 218 of the PD Act, which states that the public consultation period of the draft EIS is no less than 35 working days, the concurrent consultation period.

During the public consultation period, a copy of the draft EIS was available on the Authority's website and at the Access Canberra shopfront in Dickson. 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.

One representation was received during the public consultation period. A summary of the key issues raised during public consultation were:

- Visual impact to the surrounding area
- Reduction in residential amenity
- Further information is required for the Commonwealth to make a proper assessment
- Alternate option not duly considered
- Traffic impacts during construction
- Information in the draft EIS not up to date
- Information in the draft EIS is inconsistent with the formal agreement between TransGrid, golf club and Woodhaven Investments
- Landscape and Visual Assessment is not complete and does not reflect existing and future character
- Impact to existing land uses.

An overview of the comments received, and the proponent's response to those comments received, during the public consultation process were provided by the proponent in Tables 4.4 and 4.5 of the revised EIS.

As required by section 220 of the PD Act, a copy of the public representation was provided to the proponent and made available on the Authority's website. The representation will remain on the website until either the EIS is completed or the representation is withdrawn.

2.4.2. Entity referral of EIS

On 27 February 2018 the concurrent application, including the draft EIS was referred to each of the entities who provided comments on the scoping document. The referrals took place at the draft EIS stage so that the proponent could address entity comments in the revised EIS. Additional comments were sought on the revised EIS where the entity had requested further information from the proponent. Comments received on the EIS are summarised in Table 4.

Table 4 - Summary of entity comments on the draft EIS

Referred entity	Entity response	Entity response date
ACT Health	<p>At the EIS Scoping stage in March 2017 , the HPS requested the EIS project to consider:</p> <ul style="list-style-type: none"> any influence upon existing air quality including dust generation and dust movement while the site is under construction recommendations set out by the Australian Radiation Protection and Nuclear Safety Agency in relation to minimum distances between sources of extremely low frequency electric and magnetic fields, and current future dwellings. <p>The HPS notes the draft EIS addresses the concerns raised by the HPS. The HPS has no other comments regarding the Draft EIS.</p>	19 April 2018
Evoenergy	No comment	10 July 2018
Icon Water	Comments received were in relation to the concurrent DA's (DA201732485 & DA201732500) only.	2 & 7 March 2018
Conservator of Flora and Fauna	There are no major outstanding concerns regarding this project that will not be addressed in plans to come.	6 July 2017
Emergency Services Commissioner	Comments received were in relation to the concurrent DA's (DA201732485 & DA201732500) only.	19 March 2018
Environment Protection Authority	Comments received include conditions/advice that were related to the concurrent DA's (DA201732485 & DA201732500). The conditions/advice will be considered as part of the DA process.	19 April 2018
ACT Heritage Council	<p>The proposed development is unlikely to damage Aboriginal places and objects, subject to compliance with the following conditions.</p> <ol style="list-style-type: none"> Prior to the commencement of works: <ol style="list-style-type: none"> Protective fencing is to be installed around Aboriginal places recorded as 'RC 1 ', 'RD 3 ', 'SD RA 1 ', 'SD RA2' and 'SD RA3'; following demarcation of heritage boundaries by a qualified archaeologist and RAOs; Written notification of fence installation is to be provided to ACT Heritage; The project's Construction Environment Management Plan (CEMP) is to identify the above 	12 July 2018

	<p>Aboriginal places and management controls for their protection; and also the Unanticipated Discovery Protocols described in Navin Officer Heritage Consultants (June 2018);</p> <ol style="list-style-type: none"> 3. All project personnel are to be made aware of CEMP heritage content through the induction process; 4. Following completion of works, protective fencing is to be removed and written notification of this is to be provided to ACT Heritage; and 5. In the event that additional Aboriginal places and objects are encountered during construction works, the Unanticipated Discovery Protocols described in Navin Officer Heritage Consultants (June 2018) are to be implemented. <p>The ACT Heritage Council endorses the findings and recommendations of the revised Cultural Heritage Assessment for the project.</p>	
Transport Canberra and City Services (TCCS)	TCCS acknowledges that adequate studies have been undertaken and sufficient documentation has been prepared to support EIS No 201700005.	20 March 2018

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 7 of this report.

2.4.3. Request for revision of draft EIS

The Authority provided comments on the draft EIS, entity comments and public representations to the proponent. The proponent was required to revise the draft EIS, to take into consideration all matters raised and to demonstrate how the matters have been taken into account in the EIS.

2.5. Revised EIS

On 2 July 2018, WSP 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 matters raised in the draft stage whether the previous advice had been addressed adequately. Following this, the Authority commenced assessment of the EIS in accordance with section 222 of the Act. 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
- consideration and response to public representations received during notification of the draft EIS.

Matters to be considered during the assessment include possible conditions of approval for any subsequent DAs for this proposal, as identified in Section 7 of this report.

The Authority is satisfied the proponent adequately addressed each matter raised during public notification and raised by the Authority and by entities.

2.6. Giving the EIS to the Minister for Planning and Land Management

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 and Land Management, with the EIS, in accordance with section 225. Once the Minister has received the EIS the Minister may:

- choose to take no action on the EIS; or
- decide not to establish an inquiry panel to inquire about the EIS and present the EIS to the Legislative Assembly; or
- establish an inquiry panel to inquire about the EIS. The Minister must make this decision within 15 working days 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 8 of this report.

2.7. Lodging a development application

Once the EIS has been completed the proponent can lodge a development application 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.

2.8. 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 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 a matter of national environmental significance, 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 bilateral agreement between the ACT and Commonwealth Governments (June 2014) as meeting the environmental assessment requirements of the EPBC Act.

On 5 December 2016, DoEE gave notice to the Authority of the decision made (EPBC decision number 2016/7784) that the project is a controlled action and that the project will be assessed under the bilateral agreement with the ACT Government. The EPBC decision notice is at **Appendix C**.

2.9. Documentation referenced in this report

The documentation referenced in the Authority's assessment report are summarised as follows:

- EPBC Referral documentation.
- Revised EIS and supporting documentation;
- Entity comments and public representations draft EIS; and
- Correspondence or additional information received from proponent.

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:

- Impacts;
- Public consultation;
- Key findings;
- Mitigation; and
- Scoping document requirements.

3.1. Landscape and Visual

The proposal is aligned within an existing easement and spans across predominantly rural zones in the district of Belconnen, with the new Stockdill Drive substation proposed on Block 1635 Belconnen. The proposed new network travels north to connect with the existing substation (Block 1559 Belconnen) via a 90m easement through Ginninderry estate, Woodhaven estate and Belconnen Golf Course (for approximately 1km of the proposal). The adjacent zones within this area consist of RZ1 Suburban, RZ3 Urban Residential, PRZ1 Urban Open Space and PRZ2 Restricted Access Zone.

3.1.1. Impacts

Visual and landscape impacts were considered in relation to the surrounding topography, landscaping and existing/future land uses.

The potential impacts identified in the EIS were:

- Temporary construction compounds at the existing Canberra Substation and proposed Stockdill Substation
- Erection of fencing, barricades, gates and lighting to provide safe and secure worksites
- Establishment of construction access tracks with the Project impact area
- General construction activities within the Project impact area, such as vegetation clearing, earthworks, stockpiling materials and the parking/use of construction plant and vehicles
- Construction vehicle movements and minor traffic disruption associated with construction traffic on the local road network
- Vehicle and mobile plant movements on paved and unpaved roads, haulage routes and other work areas
- Installation and removal of electricity infrastructure
- Lighting impacts
- Stockdill Substation
- Transmission line and transmission towers (up to approximately 40 to 50 m high) and 19 double-circuit concrete pole locations (up to approximately 25 m high).

3.1.2. Section 224 notice

Further information was requested under s224 of the PD Act requesting the following (refer **Appendix D**):

- *potential visual impacts from the towers in proximity of Woodhaven (Ginninderra) residential estate*
- *potential overshadowing from the towers*
- *potential views from the residential dwellings (backing onto the 'easement/reservation')*
- *and mitigation measures.*

An Addendum to the revised EIS was submitted by the proponent that included further considerations and mitigation measures in relation to visual impacts on the surrounding estates. After considering the information submitted in response to the request made under section 224 submission, it has been considered that all items have satisfactorily addressed the scoping document. Additional mitigation measures, outlined in the addendum, have been incorporated under 3.1.5 of this report.

3.1.3. Public consultation

During the public notification process, one representation was received that raised concerns about this impact. The main concerns included:

- The visual impact the proposal may have on the Woodhaven development
- Reduction in residential amenity
- Landscape and Visual Assessment is not complete and does not reflect existing and future character.

The issues raised during public consultation were considered by the proponent and a response, addressing the issues, was provided in the revised EIS.

3.1.4. Key findings

Impacts on the landscape character and visual viewpoints were a matter considered during the EIS process. The EIS included a Landscape Character and Visual Impact Assessment (LCVIA) that considered the visual impact during construction and the impacts of the permanent infrastructure in the landscape, including lighting. These impacts were considered in relation to the surrounding topography, landscaping and whether the proposal would impact on future and existing land uses. The EIS and supporting documentation identified that there would be impacts on residential development within the area and that the impacts are difficult to avoid.

The proposed infrastructure is to provide a second secure connection to the ACT's electricity supply. The proposed new connection is predominantly located within existing easements where similar infrastructure exists. Both Ginninderry and Ginninderra Estate are new estates with minimal or no buffer between the estates and the existing 90m easement. The limited buffer does not provide opportunity for screening outside the easement, unless this is provided by individual residents in the future. The EIS highlighted that measures, such as vegetation screening, are restricted within the easement due to the requirement for vegetation clearance from electrical infrastructure. The clearances are to ensure safe operation and protection of infrastructure. Although limited by the utility requirements, the EIS has proposed localised screening, where the estates interface with the proposed towers, to reduce the visual impacts of the infrastructure on the future residents.

3.1.5. Mitigation and avoidance

The EIS proposed the following mitigation measures:

Table 5 - Avoidance and mitigation measures (landscape and visual)

Proposed mitigation measures	Stage of implementation
LANDSCAPE AND VISUAL	
Clearing around proposed Stockdill Substation: As far as possible existing trees would be retained along the Stockdill Drive boundary to maximise screening, and consideration would be given to additional landscape screening to limit potential views toward the Stockdill Substation	Prior to construction
Screening of views from the Billabong Aboriginal Development Corporation (PV7) - Additional landscape screening at the Billabong Aboriginal Development Corporation and the properties to the south-east of the Project with an assessed moderate impact may reduce the impact of views of the nearest towers. Consultation would be undertaken with the owners of these properties	Prior to construction
Screening of views from property to east, south of Stockdill Drive (PRV3) – Additional landscape screening near the buildings may reduce the impact of views of the nearest towers which would be on the opposite side of the existing towers. It is recommended that consultation be undertaken with the property owners to investigate if such screening is desired	Prior to construction
Impact to private property (Residents adjacent to Tower 5A, 6A & 7A locations) – as part of final detailed design phase consultation will occur with landholders (of lands where planting is to occur i.e. golf course and to the south of Ginninderra Estate as shown in Figure 2.2 as having a predicted visual impact level of major) to agree vegetation screening (extent and species). A Revegetation Plan (including extent of screening, species to be planted and identification of maximum heights for species growth at four metres) would be prepared following this consultation	Prior to construction
Impact to private property PRV2 (vineyard) - Due to the very close proximity of the transmission easement and the need for existing vegetation to be cleared within the new easement, the project would add to the existing visual impact from the existing transmission lines. There are no viable options to screen views from this property nor reduce impact via other possible treatments such as altering colours of structures. It is therefore recommended that consultation be undertaken with the receptor on the potential impact	Prior to construction
The Revegetation Plan would be submitted as part of the Construction Environmental Management Plan (CEMP) to EPSDD for approval prior to construction commencing	Prior to construction

All construction plant, equipment, waste and excess materials shall be contained within the designated boundaries of the work sites and shall be removed from the site following the completion of construction	During construction
Disturbed areas would be revegetated or resurfaced as appropriate and progressively as works are completed in an area	During construction
Construction visual impact management would focus on minimising dust emissions using the methods outlined in Section 6.16.3 and on reducing the construction period through efficient work practices. These measures would be included in the overarching CEMP for the Project	During construction
Following construction vegetation screening would be planted in accordance with the Revegetation Plan	Post construction
The screening vegetation would be managed in accordance with TransGrid procedures to ensure electrical safety clearances are maintained	Post construction

3.1.6. Scoping document requirements

The table below details the risks associated with Landscape and visual as defined in the EIS.

Table 6 - Scoping document requirements (Landscape and visual)

Potential Impact	Risk Assessment			
	Risk (before mitigation)	Likelihood (after mitigation)	Consequence (after mitigation)	Residual risk
Visual impact during construction	Medium	Likely	Minor	Medium
Addition of new infrastructure in the visual landscape for viewpoints	High	Likely	Minor	Medium
Addition of new infrastructure in the visual landscape for viewpoints (sensitive receivers) - Ginninderra Estate residence	High	Likely	Moderate	High

3.2. Terrestrial Flora and Fauna

The proposed development has the potential to impact on the conservation values of the project site including native vegetation and threatened species habitat. The following threatened species and ecological communities listed under the NC Act have been identified as potentially present on the site:

- Regent Honeyeater
- Superb Parrot
- Swift Parrot
- Golden Sun Moth
- Pink-tailed worm-lizard
- Little Eagle
- Scarlet Robin
- Yellow Box/Red Gum Grassy Woodland; and
- Natural Temperate Grassland.

Five of the species identified above are listed under the EPBC Act. Habitat requirements and potential impacts for these species are discussed in section 3.16 Matters of National Environmental Significance (MNES).

The EIS notes that the Yellow Box/ Red Gum Grassy Woodland and Natural Temperate Grassland does not meet the diversity and/or characteristics of listed endangered ecological communities under the NC Act. However, impacts on the vegetation communities is considered in the discussion on native vegetation.

3.2.1. Potential Impacts

The following potential impacts were identified:

- removal of native vegetation
- clearing of marginal habitat for threatened species
- fragmentation of wildlife habitat
- potential edge effects such as weed invasion, noise, light and vibration; and
- potential injury and mortality of individuals (birdstrike and road kill).

3.2.2. Public consultation

During the public notification process, one representation was received and did not raise concerns relating to terrestrial flora and fauna.

3.2.3. Key findings

Vegetation within the project site has been highly modified due to urban development, recreation, and agriculture activities. The site is dominated by exotic pastures with scattered remnant patches of native vegetation.

The Scarlet Robin (*Petroica boodang*) and Little Eagle (*Hieraaetus morphnoides*) are listed as vulnerable under the NC Act, and were both recorded within the locality of the proposal during the ecological surveys.

The Scarlet Robin was recorded in the southern section of the project area between the proposed substation site and Stockdill Drive during the 2016 ecological surveys. The proposal is likely to result in the loss of approximately 3 ha of potential habitat for the Scarlet Robin. The EIS considers that the habitat is highly disturbed and would only represent a small portion of the available habitat for the species in the region.

The Little Eagle occurs throughout Australia mainland, generally in open eucalyptus forest, woodland or open woodland habitats. Recent tracking of the Little Eagle, has shown the species regularly flying over the proposed substation site and transmission lines. The Little Eagle nest have been recorded near Straithnairn and within 2 km of the proposed transmission lines.

Approximately 26 ha of foraging habitat is likely to be impacted by the proposal. The EIS also notes that the proposal has the potential to increase the risk of electrocution due to birdstrike on powerlines. Line-marking measures on the powerlines has been proposed to minimise birdstrike. The EIS considers that the loss of habitat would only constitute a small proportion of the available habitat for the species in the region.

The EIS notes that the Rosenberg's Goanna (*Varanus rosenbergi*) has been previously recorded at Ginninderra Falls, approximately 6 km from the project site. The species is considered uncommon in the ACT. Habitat for Rosenberg's Goanna in the project site is considered of low condition habitat, given previous disturbance and lack of critical habitat components (termite mounds and limited fallen timber). The proposal will result in the loss of habitat for this species. Given the lack of critical habitat components the EIS considers it unlikely that individuals would be dependent on the habitat resources within the project site.

The proposal may also result in an increase in traffic during the construction stage, however the EIS states that this is unlikely to be significant as long term usages will remain similar to the current levels. Mitigation measures are proposed during the construction stage, including reduced speed limits to minimise road mortality on this species.

The proposal is likely to remove a total of 26 ha of highly modified native vegetation of which 1.1 ha is remnant native vegetation. The clearing of native vegetation is likely to result in habitat fragmentation, and an increase in edge effects. The EIS notes that vegetation within the project site is currently highly fragmented grassland with scattered trees and small patches of native vegetation communities. Edge effects associated with the proposal include increase in invasive species, noise and vibration, altered light and soil moisture conditions. The increase in edge effects may reduce the suitability of habitat adjacent to the proposal. However, the EIS notes that the majority of this habitat is currently subjected to edge effects, and the increase as a result of the proposal is unlikely to be significant.

The ecological surveys identified 44 hollow bearing trees within the project site. Nineteen of these were considered to have the preferred nesting characteristic for the threatened Superb Parrot. Approximately 28 hollow bearing trees would be impacted by the proposal, mitigation measures including nest boxes have been provided to minimise the impacts associated with the loss.

The EIS has considered the impacts of the proposal on terrestrial flora and fauna in the context of ongoing residential development in the region. Cumulative impacts associated with this proposal include the loss of habitat, and increased risk of injury and mortality due to birdstrike and road kills. The EIS concludes that it is unlikely the cumulative impacts would result in a threatened species or ecological community reaching critical thresholds.

3.2.4. Mitigation and avoidance

Table 6 details the avoidance measures associated with terrestrial flora and fauna as proposed in the EIS.

Table 7 - Avoidance and mitigation measures (Terrestrial flora and fauna)

Construction and environmental management plan will be prepared and implemented.	Pre- construction
Fencing and site inductions will be undertaken to ensure avoidance, and minimise indirect impacts and disturbance	Pre-construction, construction and operation
Pre-clearance ecological surveys will be undertaken for threatened flora and identify hollow bearing trees.	Pre- construction
Fauna spotter/ecologist will be on site during habitat removal/disturbance of hollow bearing trees.	Construction
Provide nest boxes or hollow for hollow bearing trees removed at a minimum ratio of 1:1.	Construction- prior to removal of hollow bearing trees
Project design will avoid areas of known threatened species habitat, fragmentation of woodland habitat an rocky outcrops	Detailed design stage
Line marking will be undertake to ensure power lines are visible to birds	Operation
Lower speed limit (50km /hr or less) will be set in the southern portion of the project site.	Construction
No clearing will be undertaken within 800 m of Little Eagle nest at Straithnairn during breeding season	Construction
Implement management and monitoring plans for ongoing operations within the substation. This would include monitoring of habitat condition and invasive species.	Operation

3.2.5. Scoping document requirements

The table below details the risks associated with terrestrial flora and fauna as defined in the EIS.

Table 8 - Scoping document requirements (Terrestrial flora and fauna)

Potential Impact	Risk Assessment			
	Risk (before mitigation)	Likelihood (after mitigation)	Consequence (after mitigation)	Residual risk
Disturbance or loss of threatened ecological communities (ACT listed)	Unlikley	Unlikely	Minimal	Negligible
Disturbance or loss of threatened species (ACT listed)	Likely	Possible	Major	High
Impact on threatened species habitat (ACT and Commonwealth listed)	Likely	Certain	Minor	Low

3.3. Hazard and risk

The proposal is predominantly located on land which encompasses grazing land on rural leases. Future residential estates are currently under construction in proximity of the existing Belconnen substation (Block 1559 Belconnen) on the northern area of the site. The proposal includes both new works and connections to existing infrastructure and is sited within existing and future electrical easements.

3.3.1. Impacts

The potential impacts identified in the EIS were:

- Bushfire during construction
- Bushfires affecting operation of the transmission lines or substation.
- Transmission lines causing bushfires
- Safety risks to workers and the public during construction
- Danger to workers during future development/maintenance works
- Danger to workers and public during operation.

3.3.2. Public consultation

During the public notification process, one representation was received and did not raise concerns relating to hazards and risks.

3.3.3. Key findings

A Bushfire Risk Assessment (BRA), prepared by Grant Fleming Environmental, was provided as part of the EIS. The main impacts identified in the BRA included potential bushfire risks to or from the project both during construction and operation.

Construction

The BRA examined hazards and risks associated with construction, as identified throughout the EIS process, including bushfire risks on surrounding rural and residential areas. The BRA proposed mitigation measures during construction that adequately reduced the impacts. These mitigation measures were included in the EIS and are outlined under 3.3.4 of this report.

Operation

The BRA also considered hazards and risks including bushfire risk in accordance with the operation of the proposed project. Asset protection zones were established for the project within areas of forest or woodland which will assist in providing a fuel reduced area. It should also be noted that the reduction of vegetation is common maintenance practice around critical electrical infrastructure to not only protect the assets, but also protect the surrounding areas. A number of mitigation measures have been proposed to reduce the risks relating to fire, hazardous material, safety, waste management and security and are outlined below.

3.3.4. Mitigation and avoidance

The proposed project details mitigation measures which incorporate entity and the Authority's comments including those mitigation measures proposed in the Bushfire Risk Assessment.

Table 8 details the avoidance measures associated with hazards and risk and bushfire risk as proposed in the EIS.

Table 9 - Avoidance and mitigation measures (Hazards and risk)

Proposed mitigation measures	Stage of implementation
HAZARD AND RISK	
A Hazard Materials Management Plan to be implemented to manage the handling, storage and transport of hazardous materials in accordance with ACT EPA guidelines, Australian Standards and regulatory requirements regarding safe work procedures.	Prior to construction
Safe Work Method Statements (SWMS) to be prepared prior to construction to minimise and manage hazards associated with construction.	Prior to construction
An emergency management plan would be developed as part of the project which would include details regarding protocols to respond to a bushfire incident, including evacuation during construction.	Prior to construction
Regular intervals of reviewing work practices/procedures to be implemented throughout construction to identify, report and respond to any new environmental hazards/risks for activities such as: <ul style="list-style-type: none"> Working near utilities Working with electrical infrastructure (prevention of electrocution) Management of holes and trenches on site Working near livestock 	During construction
Fencing of construction worksites located adjacent to or near public areas (where appropriate) to restrict access	During construction
Relevant work, health and safety regulatory requirements would be complied with during construction to remove or mitigate potential injury risks.	During construction
A site induction for contractors working on the project would include general bushfire protection measures and requirements.	During construction
Electrical equipment and other plant and machinery would be maintained in operational order that is fit for purpose and to prevent potential sparks.	During construction
All legislative requirements regarding safe work procedures would be met, including chemical handling and storage.	During construction
Temporary site buildings are to be protected from bushfire and maintained so as not to present a fire risk (e.g. perimeter fire break, cleaning gutters and non-flammable materials).	During construction
Equipment is maintained and inspected to minimize risk of failure giving rise to a fire. Appropriate equipment is utilised for the task being conducted.	During construction
Restrict hot works (such as welding or other activities generating heat or sparks) on days of declared catastrophic fire danger.	During construction
Site vehicle specifications to include bushfire risk reduction considerations including carrying one or more fire extinguishers, have a suitable height clearance for off road use.	During construction
Vehicle access controls would be established to define vehicle movement areas, control paddock access and restrict vehicle use that may create a fire risk on days of equal to or greater than high declared Fire Danger.	During construction

Waste Management – Construction waste would be removed from the site in a timely manner so as to not cause a fire risk or obstruct emergency vehicle access. Unauthorised access to waste receptacles would be prevented, i.e. locked covers and/or fencing to prevent public access or fires being lit.	During construction
Storage of hazardous materials and chemicals associated with the operation and maintenance of the new Stockdill Substation would be designed in line with the appropriate EPA guidelines, Australian Standards and regulatory requirements.	Operation
Hazardous material procedures (including procedures for managing spills, and the refuelling and maintenance of vehicles/equipment) to be implemented during operation of the project to minimise the potential for impacts associated with chemical spills and leaks.	Operation
Regular checks on the Stockdill Substation perimeter security fencing to ensure no public/livestock access.	Operation
An Operations Emergency Response Plan (OERP) prepared by TransGrid for management of the Stockdill Substation outlining the procedures to be followed in the event of an emergency, including any shutdown and the correct emergency services contact details relevant to the different types of emergencies (i.e. fire, police, ambulance, etc.).	Operation
Routine checks on transmission lines in order to ensure the infrastructure is in safe working order.	Operation
Regular maintenance activities in accordance with the relevant TransGrid and Evoenergy operational work health and safety procedures to meet regulatory requirements to minimise the potential of risk to both worker, livestock and public safety.	Operation
Regular checks and maintenance of equipment associated with the project to ensure operational functionality.	Operation
BUSHFIRE RISK	
Easement maintenance to keep fuel loads under control, Including: <ul style="list-style-type: none"> • Maintenance of grass within easements in accordance with ESA standards. • Management of vegetation within easements including Burgan and to include a buffer zone of 10 meters clearance of Burgan. 	Operation
Maintenance of Asset Protection Zones (APZs) in accordance with ESA fuel management standards, including removal of lower branches (up to two metres) from trees within APZs	Operation
Regular checks and maintenance of equipment associated with the project to ensure operational functionality.	Operation

3.3.5. Scoping document requirements

The table below details the risks associated with Hazards and Risk and Bushfire risk as defined in the EIS.

Table 10 - Scoping document requirements (Hazards and Risk)

Potential Impact	Risk Assessment Risk (before mitigation)	Likelihood (after mitigation)	Consequence (after mitigation)	Residual risk
Potential risk of bushfire during construction	Very Low	Remote	Minimal	Negligible
Potential impact of bushfires affecting operation of the transmission lines or substation	Very Low	Remote	Minimal	Negligible
Potential for transmission lines to cause bushfire	Low	Unlikely	Minor	Very Low
Potential safety risks to workers and the public during construction	Low	Unlikely	Minor	Very Low
Potential for danger to workers during future development/maintenance works	Low	Unlikely	Minor	Very Low

3.4. Traffic and Transport

The proposal is across an area of land that overlaps roads, rural leases and residential areas. The project is adjacent to Stockdill Drive and is accessed via Drake Brockman Drive and Spofforth Street Holt. The network is intended to create a second electricity connection to the existing network and have both new and existing access points.

The proposal is also adjacent to Ginninderra and Ginninderry Estate which is currently being constructed. The estate access/egress is from Stockdill Drive onto Fullston Way and Lionel Rose Street. The future arrangement for Stockdill Drive includes a new T-intersection at Ginninderry estate (Stage 1) with the future arterial road at the entrance of the estate.

3.4.1. Impacts

The potential impacts identified in the EIS were:

- Reduced road network performance and increased travel times due to construction vehicle movements
- Change to existing access
- Proposed site access from Stockdill Drive has potential access risks for construction delivery vehicles.

The majority of the likely impacts are limited to the construction stage and will be staggered as the proposal progresses. Once the project is complete and the project is in the operation phase, there will be negligible impact in the area to rural and residential leases.

3.4.1. Public consultation

One representation was received during public notification and detailed a number of issues relating to the Draft EIS regarding traffic, transport and access associated with the construction and operation phases of the project.

Traffic, transport and access were included in the representation and specified that the Draft EIS did not include information pertaining to Fullston Way during construction and operation. The proponent has addressed this issue in Table 4.4 Item 6 & 4.5 and has included consideration of Fullston Way in Part C, Section 9 of the Revised EIS.

3.4.2. Key findings

A detailed Traffic and Transport Impact Assessment (TTIA), prepared by WSP, was provided as part of the EIS. The TTIA identified the potential construction and operational traffic and transport impacts associated with the project. The three main impacts identified in the TTIA were as follows:

- Reduced road network performance and increased travel times due to construction vehicle movements
- Change to existing access
- Proposed site access from Stockdill Drive has potential access risks for construction delivery vehicles.

These impacts are addressed as follows in accordance with the two main phases of the project:

Construction

The EIS investigated the impacts of traffic, transport and access during the construction phase of the project on surrounding rural and residential areas. A specialist assessment was conducted to ascertain the potential traffic, transport and access impacts during construction and has proposed mitigation measures to either remove, mitigate or reduce the potential impacts. Mitigation measures, such as temporary traffic management plans, have been committed to in the EIS and will be implemented as part of the construction environmental management plan (CEMP).

Operation

The EIS also investigated the impact of the Traffic, Transport and Access risks in accordance with the operation of the proposed project. A specialist assessment was conducted to ascertain the potential traffic and transport impacts during operation which concluded that the traffic impacts are likely to be minimal during operation.

3.4.3. Mitigation and avoidance

The proposed project details a number of mitigation measures which incorporate entity and the Authority's comments including those mitigation measures proposed in the TTIA.

Table 11 details the avoidance measures associated with traffic and transport as proposed in the EIS.

Table 11 - Avoidance and mitigation measures (Traffic and Transport)

Proposed mitigation measures	Stage of implementation
Final consultation with the relevant ACT authorities including Roads ACT, the Development Review and Coordination team within Transport Canberra and City Services (TCCS) and Access Canberra regarding the application of permits for the proposed site access driveway location and traffic access arrangements	Design
Locating the access appropriately to maintain sufficient sight distance for drivers.	Design
Any temporary traffic management controls	Construction
Dates and specific locations for overmass vehicle night-time deliveries	Construction
Speed limits	Construction
Procedures for managing unplanned incidents, accidents and atypical operations	Construction
Safety and amenity controls	Construction
Site access points and procedures	Construction
Transportation and equipment delivery procedures (including in accordance with (ACT) Access Canberra Services and Roads ACT as relevant). Consultation with the NSW Roads and Maritime Services may also be required with respect to activities where equipment or infrastructure is required to be delivered from outside of the ACT	Construction
Directional signage to guide drivers and pedestrians/cyclists, etc.	Construction
Traffic management communications, community communications, complaints and enquiry procedures	Construction
Traffic mitigation measures at the access to the Stockdill Substation, including installation of advisory and warning signage to remind drivers of the changed road conditions	Construction
Arrangements and procedures for the oversized delivery vehicles including: <ul style="list-style-type: none"> — arranging the delivery during off peak time when traffic levels are lower in accordance with approved permit and escort requirements from Access Canberra — oversized vehicle routes and movements planned to meet the relevant road safety and other regulatory requirements. 	Construction

3.4.4. Scoping document requirements

The table below details the risks associated with Traffic, Transport and Access as defined in the EIS.

Table 12 - Scoping document requirements (Traffic and Transport)

Potential Impact	Risk Assessment Risk (before mitigation)	Likelihood (after mitigation)	Consequence (after mitigation)	Residual risk
Reduced road network performance and increased travel times due to construction vehicle movements.	Low	Unlikely	Minimal	Very Low
Change to existing access	Very Low	Remote	Minimal	Negligible
Proposed site access from Stockdill Drive has potential access risks for construction delivery vehicles.	Medium	Likely	Minimal	Low

3.5. Noise and Vibration

The proposal is located within proximity of residential and rural land uses. The project is to be constructed in stages, across an 18 month period, consisting of construction activities such as site establishment, earthworks, resurfacing and installation and decommissioning of major electrical infrastructure. Once constructed, and parts of the network decommissioned, the network will be connected to the existing Belconnen substation (Block 1559 Belconnen) and the new Stockdill Drive substation proposed on Block 1635 Belconnen.

3.5.1. Impacts

The potential impacts identified in the EIS were:

- Construction noise during standard hours
- Construction noise outside of standard hours
- Construction vibration
- Construction road traffic
- General operation of TransGrid Stockdill Substation (constant noise sources)
- Operation of the circuit breaker within the Stockdill Substation
- Operation of the transmission lines
- Operation road traffic noise.

With the decommissioning of some of the elements at the existing Belconnen substation, the EIS outlines that the noise levels at this site is expected to be reduced. This would be a positive benefit on the surrounding land users.

3.5.1. Public consultation

During the public notification process, one representation was received that raised concerns about noise and vibration. This concern was highlighted as a potential impact on surrounding residential estates such as Ginninderra Estate, and Block 2 Section 132 Holt (Belconnen Golf Course).

The issues raised during public consultation were considered by the proponent and a response provided in Tables 4.4-4.6 of the revised EIS.

3.5.2. Key findings

A *Noise and Vibration Impact Assessment* (NVIA), prepared by an appropriately qualified person, was provided as part of the EIS. The main impacts identified in the NVIA included noise and vibration during construction and operation.

Construction

The construction activities include the use of vibratory rollers, bored piling rigs, jackhammers, dozers (large and small) and augers. The EIS investigated the impact of the vibration-generating equipment on surrounding sensitive receivers and has proposed suitable mitigation measures as outlined in 3.5.3 of this report. The mitigation measures will be applied through management plans and will be in place for the construction stage.

Operation

The operation of the existing Belconnen substation and the proposed Stockdill Drive substation are noise generating facilities (constant noise sources). As noted above, the removal of some of the transformers at the existing Belconnen Substation is expected to reduce the noise levels. Mitigation measures have been outlined in the EIS to reduce the noise impacts from the new substation including noise attenuation barriers provided as part of the design.

3.5.3. Mitigation and avoidance

Table 13 details the avoidance measures associated with noise and vibration as proposed in the EIS.

Table 13 - Avoidance and mitigation measures (Noise and vibration)

Proposed mitigation measures	Stage of implementation
Prior to the commencement of works a construction noise and vibration management plan (CNVMP) would be developed for the Project. The CNVMP would identify management strategies for works required outside of the standard construction hours and protocols for community consultation and complaints handling.	Post construction
All workers shall be inducted on the CNVMP, site environmental conditions and sensitivities identified in the EIS and receive training as appropriate. The primary emphasis should focus on ensuring that workers understand the implemented noise management measures and locations of the sensitive receivers. Records shall be kept of this induction and training.	Post construction
The standard vibration isolation treatment as recommended by the manufacturer would be incorporated into the design to manage operational vibration.	During construction
A noise wall system will be provided to enclose the main transformer at the proposed Stockdill Substation with the associated radiators and	During construction

cooling fan located outside and to the west of the noise wall system. The following features are recommended: <ul style="list-style-type: none"> height of the barrier to be at least 6 metres consideration of a barrier system with a resonator system in the internal facing of the barrier to reduce the tonal characteristic 	
Noise affected neighbouring properties shall be notified as to the timing and duration of the construction works at least seven days prior to commencing work.	During construction
Construction works would be planned and carried out during standard construction hours wherever possible (i.e. Monday to Saturday 7 am to 6 pm). Where out-of-hours works are required as per identified in this report, a further assessment should be undertaken specific to the proposed activities. This assessment should consider factors such as the level of occupancy at any identified new residential estates and the locations of the proposed out-of-hours works to confirm the predicted impacts and appropriateness of mitigation measures.	During construction
Restrictions to the use of roller would be required for all transmission lines works within the easement. It is recommended that the safe working distance be referred to when working close (≤ 100 metres) to a building structure.	During construction

3.5.4. Scoping document requirements

The table below details the risks associated with noise and vibration as defined in the EIS.

Table 14 - Scoping document requirements (Noise and vibration)

Potential Impact	Risk Assessment			
	Risk (before mitigation)	Likelihood (after mitigation)	Consequence (after mitigation)	Residual risk
Noise and vibration during construction	Medium	Unlikely	Minimal	Medium
Noise and vibration during operation of the substation	Low	Possible	Minor	Low

3.6. Indigenous Heritage Sites

Aboriginal places/objects are known within proximity of the proposal. The EIS identified 57 known Aboriginal sites located within two kilometres of the study area, with four Aboriginal sites including a culturally modified tree (RD9) and surface artefact scatters (PAD6, RC1 & RC2). The EIS has suggested that, although the sites are located in proximity of the works, the proposal is unlikely to disturb these known areas.

3.6.1. Impacts

The potential impacts identified in the EIS were:

- Known sites within proximity of the works may be inadvertently disturbed
- Unknown sites may be encountered during construction.

3.6.2. Public consultation

During the public notification process, one representation was received and did not raise concerns relating to heritage.

3.6.3. Key findings

The EIS included a Cultural Heritage Impact Assessment that investigated the aboriginal heritage within the project area. The investigations for the EIS found that RD9 has been salvaged and PAD6 is no longer designated. During the investigations three more artefact scatter sites were identified within the project study area (SDRA1, SDRA2 & SDRA3). The EIS has identified that the location of the closest site is greater than 20m from the proposed towers and greater than 50m from the access tracks.

Entity comments were received from the ACT Heritage Council during the EIS process and are summarised in Table 4 of this report.

3.6.4. Mitigation and avoidance

Table 14 details the avoidance measures associated with Indigenous heritage sites as proposed in the EIS.

Table 15 - Avoidance and mitigation measures (Indigenous heritage sites)

Proposed mitigation measures	Stage of implementation
Identification of Sites RC1, RD3 and SDRA2 on relevant construction maps (and identified in the CEMP) and worker induction on these to raise awareness of sensitivities and requirements to avoid impact.	Prior to construction
Sites SDRA1 and SDRA3 would be fenced off during construction and their location included on all relevant construction maps.	During Construction
In the event that an Aboriginal heritage site or artefact is identified during construction works, all ground surface disturbance works in the area would cease immediately. The unanticipated discovery protocol (Appendix 2 of Volume 2 – Technical paper 5) would be implemented.	During construction
Sites RC1, RD3, SDRA1, SDRA2 and SDRA3 would be included in TransGrid Geographical Information System (GIS) to allow for identification and avoidance during operation. This information would be made known to all workers and inspectors that would access the line near the site during the operation of the Project.	Post construction

3.6.5. Scoping document requirements

The table below details the risks associated with Indigenous heritage sites as defined in the EIS.

Table 16 - Scoping document requirements (Indigenous heritage sites)

Potential Impact	Risk Assessment			
	Risk (before mitigation)	Likelihood (after mitigation)	Consequence (after mitigation)	Residual risk
Impact of known Indigenous heritage sites/objects	Medium	Unlikely	Moderate	Low
Impact of undetected Indigenous heritage sites/objects	Medium	Unlikely	Moderate	Low

3.7. Water quality and hydrology

The proposal is located within proximity of Murrumbidgee, Molonglo and Ginninderra catchments. The objectives of the Conservation Catchment policies are to protect and conserve the water quality and aquatic habitats of highly valued lakes, rivers and streams. The policies ensure that the streamflow and quality of discharges protect environment values and protect and conserve the quality of groundwater in the Territory.

3.7.1. Impacts

The potential impacts identified in the EIS were:

- Increase in non-permeable surfaces
- Vegetation clearing affecting surface flows
- Spills impacting water quality
- Construction activities disturbing groundwater
- Impact of flooding on built infrastructure.

3.7.2. Public consultation

During the public notification process, one representation was received and did not raise concerns relating to water quality and hydrology.

3.7.3. Key findings

The proponent has addressed water quality and hydrology under Section 15 of the EIS. The proposed permeable surfaces are minimal across the project which is also a consideration at the detailed stage (development application stage). The proposed disturbance from development activities is of a nature that is unlikely to impact on surface flows or water quality. The EIS has addressed water quality and hydrology impacts sufficiently in accordance with the impacts identified in the scoping document and have proposed adequate mitigation measures.

3.7.4. Mitigation and avoidance

Table 17 details the avoidance measures associated with water quality and hydrology as proposed in the EIS.

Table 17 - Avoidance and mitigation measures (Water quality and hydrology)

Proposed mitigation measures	Stage of implementation
If minor dewatering is required, the management of discharge water would be documented in the CEMP. Discharge water would be limited to vegetated, grassed areas, away from creek lines and sensitive ecological habitats, and within the transmission line easement. If the discharge water is highly turbid, dewatering through a filter sock (or similar) would be considered, where appropriate, to minimise sedimentation.	Prior to construction
Spoil shall be stockpiled in a manner so as to avoid the possibility of sediments entering waterways (including stormwater drains) or migrating off-site.	During construction
Any bulk fuel/herbicide or hazardous material transport vehicles shall be parked on level ground a minimum of 40 m away from waterways (including drainage and irrigation channels). No refuelling or bulk herbicide preparation shall occur within 40 metres of a waterway or open site drains.	During Construction
Any spills of oil, fuel and other liquids shall be cleaned up promptly and immediately reported to the TransGrid/Evoenergy (as relevant) site representative.	During construction
Establishment (through physical separation) of clean and possible 'oily water' flow areas at the facility to minimise the possibility of cross contamination while minimising the volume of 'oily water' containment to be retained on the substation bench.	Post construction
Bunding of transformers and isolation of oil filled equipment by earthwork design and drainage path isolation, to minimise the risk of inappropriate substances entering into the site drainage system. Bunding is to be in accordance with TransGrid oil containment policy and generally with other industry standards. Stormwater runoff would be temporarily detained on the site through On Site Detention (OSD) with bench design capturing and reducing peak stormwater flows from the bench. Stormwater runoff would be disposed of in accordance with relevant regulatory guidelines.	Post construction
Inclusion of three rain gardens and swales at the facility. These are designed to reduce the export from the bench of suspended solid, total phosphorus and total nitrogen. These gardens form part of the OSD system and help reduce the peak stormwater flow. They will be sized using Model for Urban Stormwater Improvement Conceptualisation (MUSIC) software to meet ACT's WSUD targets.	Post construction
All upstream stormwater flow from the hill will be intercepted upstream from the bench and embankments and diverted around the substation bench, these will take the form of grassed swales. On the eastern side of the facility the flow will be directed to the existing dam facility south of the substation and to the drainage channel adjacent to the road.	Post construction

3.7.5. Scoping document requirements

The table below details the risks associated with water quality and hydrology as defined in the EIS.

Table 18 - Scoping document requirements (Water quality and hydrology)

Potential Impact	Risk Assessment			
	Risk (before mitigation)	Likelihood (after mitigation)	Consequence (after mitigation)	Residual risk
Contamination through fuel spills from construction machinery used on site	Low	Possible	Minor	Low

3.8. Soils and Geology

The project is to be constructed on land that has been used predominantly for rural activities. As such, the previous land uses may have led to the land being contaminated by these past activities. The construction of the proposal has the potential to impact on groundwater and potentially contaminated soils.

3.8.1. Impacts

The potential impacts identified in the EIS were:

- Site contamination from construction machinery
- Erosion and sedimentation causing pollution during construction
- Unexpected find of contaminated land
- Increased runoff from the site.

3.8.2. Public consultation

During the public notification process, one representation was received and did not raise concerns relating to soil and geology.

3.8.3. Key findings

Possible contaminated sites were outlined in the EIS and supporting documentation and included:

- The existing Belconnen substation (Block 1559 Belconnen)
- Golf course areas (Block 3, Section 118 and Block 2, Section 132, Holt) (all formerly parts of 15 & 16, Section 99)
- Vineyard (Block 1582) and
- Other rural properties.

The EIS outlined that the contamination risk is low due to the nature and location of the proposed works. Excavation works requires 27,000 cubic metres of material to be excavated with approximately 5500 cubic metres exported elsewhere. The actual amount to be exported off-site would be subject to whether contaminated soil is encountered.

The ground disturbance intended for the actual construction of the towers and in the substation is to be minimal in the various locations. Therefore, during the construction process, the nature of the works (i.e. towers and substation locations) can be easily managed as separate components to ensure effective management of contaminated land.

3.8.4. Mitigation and avoidance

Table 19 details the avoidance measures associated with soils and geology as proposed in the EIS.

Table 19 - Avoidance and mitigation measures (Soils and geology)

Proposed mitigation measures	Stage of implementation
Confirm requirement for an environmental authorisation from the EPA in relation to volume of earthworks and likely import material volume.	Prior to construction
<p>As part of the overarching CEMP for the Project, soil, water and contaminated land management plans would be prepared prior to construction works commencing. It would include the following measures:</p> <ul style="list-style-type: none"> • Erosion and Sediment Control Plan (ESCP) requirements – these would be prepared in accordance with ACT requirements to manage erosion and endorsed by the EPA prior to works commencing. • Requirements for progressive reinstatement of construction work areas, including disturbed tower/pole installation sites, to minimise erosion potential. • Construction plant and vehicles shall be cleaned of any mud or soils prior to access onto public roads. Vehicles and equipment shall remain on existing roads and defined site access tracks. • Any imported fill shall be certified at source location (e.g. Quarrymaster or property owner) as pathogen and weed free Excavated Natural Material (ENM) or Virgin Excavated Natural Material (VENM). 	Prior to construction
<p>Protocols for management of spoil including:</p> <ul style="list-style-type: none"> • any specific conditions associated with the environmental authorisation • stockpile management • testing and classification requirements prior to export offsite • any material excavated during construction within the area of the Canberra Substation to be assessed for contaminants of potential concern, prior to reuse, or disposal off-site. 	Prior to construction
<p>An Unexpected Finds Procedure (UFP) to manage any unexpected contamination identified during site works. The UFP should:</p> <ul style="list-style-type: none"> • identify potential contaminated land characteristics (visual, odours, etc.) to be aware of during works • identify measures to mitigate potential risks to sensitive receptors from exposure to contamination associated with the unexpected finds 	Prior to construction

<ul style="list-style-type: none"> provide procedure for sampling and analysis of material or soil suspected of showing evidence of contamination and required disposal protocols in accordance with regulatory requirements. 	
Identification of contamination risk management measures related to excavation activities on previous Blocks 15 and 16, Section 99 for all excavation and construction activities on the site. Adherence to any Contamination Management Plans (CMP) that exist for these properties, and control measures identified therein.	Prior to construction
Copies of the Preliminary Site Investigation (as outlined in section 14.2.1 of the Revised EIS) would be made available to the ACT EPA prior to commencement of works for endorsement.	Prior to construction
Environmental spill kits containing spill response materials suitable for the works being undertaken shall be kept on site at all times and be used in the event of a spill.	During Construction
All chemicals or other hazardous substances shall be stored in bunded and weatherproof facilities away from drainage lines. The capacity of the bunded area shall be at least 130% of the largest chemical volume contained within the bunded area. The location of the bunded enclosure/s shall be shown on the Site Plans.	During construction

3.8.5. Scoping document requirements

The table below details the risks associated with soils and geology as defined in the EIS.

Table 20 - Scoping document requirements (Soils and geology)

Potential Impact	Risk Assessment			
	Risk (before mitigation)	Likelihood (after mitigation)	Consequence (after mitigation)	Residual risk
Erosion and sedimentation causing pollution as a result of construction works	Low	Possible	Minor	Low
Increased runoff from the site as result of increased non-permeable surfaces	Low	Possible	Minor	Low

3.9. Climate Change and Air Quality

The proposal is to provide a second electricity connection to the ACT and is being undertaken to satisfy requirements of the *Electricity Transmission Supply Code (2016)*. The code requires the utility provider to construct an electrical transmission network and geographically separate connection points. The separate connection is to ensure demand is met whilst protecting the reliability and integrity of the ACT network.

3.9.1. Impacts

The potential impacts identified in the EIS were:

- Increase in air pollution during construction including dust and machinery/vehicle emissions
- Generation of greenhouse gas emissions
- Potential impacts to the network from climate change.

3.9.2. Public consultation

During the public notification process, one representation was received and did not raise concerns relating to climate change and air quality.

3.9.1. Key findings

The EIS identified vehicular traffic as the main source of air pollution within this area. Emissions from residents using wood-fired heaters were also identified as contributing with potential odour sources being the Belconnen landfill and the Lower Molonglo Water Quality Control Centre.

The proposed construction activities that may impact on air quality were identified in the EIS as a low risk level. The impact was determined low as emissions/dust from construction vehicles would be minimal due to the nature and staging of the development. The EIS states that these impacts could be managed at the construction stage through appropriate management plans.

Impacts from climate change were outlined in the EIS including possible damage to the new infrastructure, increase in outages, increased degradation of equipment and increased capital repair costs. These impacts relate to the existing, as well as the new, infrastructure and are part of an ongoing consideration in the *ACT Climate Change Adaptation Strategy*. It is noted that the proposal is to safeguard the ACT's electricity supply by providing an additional connection point/substation in the event the electrical supply is interrupted.

3.9.2. Mitigation and avoidance

Table 21 details the avoidance measures associated with climate change and air quality as proposed in the EIS.

Table 21 - Avoidance and mitigation measures (climate change and air quality)

Proposed mitigation measures	Stage of implementation
<p>A construction air quality management plan (CAQMP) as part of the CEMP would be produced for the construction phase of the Project. This would identify specific construction activities with potential to impact air quality and measures to minimise impacts. This includes the following:</p> <ul style="list-style-type: none">• if necessary, dust suppression techniques shall be implemented, and incorporated into the ESCP, as per the techniques outlined in the "Blue Book", such as water spraying of surfaces and covering stockpiles• wheels of all site equipment and vehicles would be cleaned so that material with potential to generate dust is not spread• vehicles and equipment shall be maintained in accordance with the manufacturer's specifications	Prior to construction

<ul style="list-style-type: none"> • progressively revegetating or otherwise rehabilitating disturbed areas as works are completed • all waste to be removed from site and disposed to an appropriately licenced waste facility. No burning of any waste to be permitted. The transfer off site shall be done by covered trucks • protocol for handling and responding to community complaints. 	
<p>The amount of emissions could be reduced through consideration of the following mitigation measures:</p> <ul style="list-style-type: none"> • using low greenhouse gas-intensive construction materials (where a suitable substitute for a high greenhouse gas-intensive material is available) • implementing energy-efficient work practices, such as switching off construction plant, vehicles and equipment when not in use to minimise idling • identifying measures for mitigation as part of site inductions, training and pre-start talks • procuring construction services and materials locally to minimise the distance travelled and therefore emissions of vehicles accessing the site • regularly monitoring on energy, resource use and associated greenhouse gas emissions as part of the environmental reporting requirements specified within the CEMP • selecting materials during construction planning to ensure products that reduce embodied carbon are considered and used • ensuring clearance of vegetation be limited to the minimum that is required for the Project • ensuring all vegetation cleared be disposed of at a registered compost facility in the Canberra region and that it is not to be sent to landfill or burnt. 	During construction
<p>Measures to be considered during the construction and operation of the Project would include:</p> <ul style="list-style-type: none"> • monitoring weather forecasts and specific weather warnings • positioning fire extinguishers at site offices and within construction vehicles (in case of bushfires) • being alert to fire warnings and notices • keeping the construction site clear of debris wherever possible (in case of severe winds) • considering specific measures for wet season as part of the broader ESCP • ensuring major earthworks are planned to reasonably not 	During construction

coincide with periods of expected rainfall or high winds.	
During operation of the substation, ancillary service vehicles and maintenance equipment would be well maintained and regularly serviced.	Post construction

3.9.3. Scoping document requirements

The table below details the risks associated with climate change and air quality as defined in the EIS.

Table 22 - Scoping document requirements (climate change and air quality)

Potential Impact	Risk Assessment			
	Risk (before mitigation)	Likelihood (after mitigation)	Consequence (after mitigation)	Residual risk
Emissions associated with construction plant machinery during construction	Low	Possible	Minor	Low
Dust from construction activities	Low	Possible	Minor	Low

3.10. Matters of National Environmental Significance (MNES)

The proposal was determined a controlled action due to impacts on listed threatened species and ecological communities. The proposed development has the potential to impact upon seven threatened species listed under the EPBC Act. The following listed threatened species and ecological communities were identified as having potential habitat on the site and/or are known to occur regionally:

- Regent Honeyeater
- Superb Parrot
- Golden Sun Moth
- Pink-tailed worm-lizard
- Hoary Sunray
- Basalt Pepper-creep; and
- Pale Pomadourris.

The EIS notes that the Yellow Box/ Red Gum Grassy Woodland and Natural Temperate Grassland does not meet the diversity and/or characteristics of the EPBC listed endangered ecological communities.

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, Commonwealth Recovery Plans approved conservation advice and Threatened Abatement Plans, ACT Government significant flora and fauna mapping, the NSW Wildlife Atlas and records of previous ecological surveys in support of the field investigations performed in the preparation of the EIS.

3.10.1. Potential Impacts

The following potential impacts were identified:

- removal of native vegetation
- fragmentation of wildlife habitat
- clearing of marginal habitat for threatened species
- potential edge effects such as weed invasion, noise, light and vibration; and
- potential injury and mortality of individuals.

3.10.2. Public consultation

During the public notification process, one representation was received and did not raise concerns relating to MNES.

3.10.3. Regent honeyeater

The Regent Honeyeater (*Anthochaera phrygia*) is listed as endangered under the NC Act and critically endangered under the EPBC Act. According to the approved conservation advice, Regent Honeyeaters are known to occur in woodlands with large proportions of mature trees, full canopy cover and high incidence of mistletoe. The species feeds on nectar from flowering eucalypts-Yellow Box and Blakely's Red Gums and parasitic mistletoes.

The distribution of the species is patchy extending from south-east Queensland, through New South Wales and the ACT to Victoria. Canberra Ornithologist Group (COG) notes that the species is a rare visitor to the woodlands of the ACT region, usually dependent on the occurrence of flowering Yellow Box and suburban ironbark's. The Regent Honeyeater has been recorded in Gungahlin, Mt Majura and at Mulligans Flat Nature Reserve.

No Regent Honeyeaters were recorded during the ecological surveys, however approximately 1.1 ha of potential foraging habitat was identified within the project site. The EIS notes that the habitat within the project site has been subjected to degradation from a long term agricultural use and is not considered to represent high-quality habitat.

3.10.3.1. Known threats

Major threats to the Regent Honeyeater as outlined in the species recovery plan and approved conservation advice include:

- clearing of habitat, containing the key eucalypt species, for agriculture and urbanisation
- ongoing degradation and loss of habitat including the loss of mature trees and lack of regeneration; and
- loss and fragmentation of woodland habitat due to agriculture, clearing and urbanisation.

3.10.3.2. Potential impacts

The proposal is likely to result in a loss of 1.1 ha of a potential foraging habitat. The habitat has been identified in the EIS as being previously disturbed and is unlikely to constitute high-quality habitat. The EIS considers, given the nomadic nature of the Regent Honeyeater and the small amount of habitat to be removed, it is unlikely that the species would be dependent on the foraging resources within the study area.

The key focuses of the Regent Honeyeater recovery plan is to improve the quality and extent of habitat; bolster the wild population with captive bred bird; and to provide guidance to ensure new development across the core range does not impact on the long-term survival of the species. The proposal is unlikely to improve the quality and extent of Regent Honeyeater

habitat, however, the EIS considers that removal of 1.1 ha of potential foraging habitat is unlikely to lead to the long-term decrease in the population of the species.

In addition the proposed mitigation measures outlined in Section 3.10.10, will further reduce impacts on the Regent Honeyeater. Providing the mitigation measures are implemented, the Authority considers the impacts associated with the proposal on the Regent Honeyeater will be avoided and/or mitigated to the greatest extent practicable.

3.10.4. Superb Parrot

The Superb Parrot (*Polytelis swainsonii*) is listed as endangered under the NC Act and vulnerable under the EPBC Act. The Superb Parrot inhabits forests and woodlands including yellow box, red gum woodlands in the Riverina, Western Slopes and Plains and extending onto the Southern Tablelands in the Canberra region.

In the ACT, the species is known to occur in the box gum grassy woodlands, with Blakely's red gum being the main source of nesting hollows. Critical habitat features for Superb Parrots include large living and dead trees for nesting sites. The EIS states that recent studies undertaken by the Fenner School show that the preferred Superb Parrot nesting trees have a trunk breast height of at least 75 cm with hollows approximately 4 m above the ground and a hollow entrance ranging from 8 to 18 cm wide.

The EIS notes that although the Superb Parrot was not recorded in the project site during the ecological surveys, it has been observed less than a kilometre away in the Central Molonglo area. A total of 44 hollow bearing trees were recorded in the project site, of which 19 are considered to have nesting characteristics that are preferred by the Superb Parrot.

3.10.4.1. Known threats

The following threats are identified in the Superb Parrot approved conservation advice include:

- widespread clearing, degradation and fragmentation of box gum woodland throughout the species' range, especially in breeding and foraging habitats
- clearing of woodland corridors on which the species relies for transit between foraging and breeding habitats
- grazing by stock reduces the amount of food available to parrots especially in drought periods
- competition for nest hollows by introduced species such as common starling (*Sturnus vulgaris*), common myna (*Acridotheres tristis*) and honey bees (*Apis mellifera*)
- inappropriate fire regimes which degrade breeding and foraging habitats; and
- poisoning by insecticides or other poisons used to eradicate pest animals.

3.10.4.2. Potential impacts

The proposal will impact approximately 1.1 ha of potential habitat including the loss of ten preferred nesting trees (two at the proposed substation site and eight along the easement). The EIS notes that the siting of the proposed substation was refined to minimise ecological impacts. This has resulted in retention of 11 trees including eight hollow-bearing trees, four of which are suitable for Superb Parrot.

The Recovery Plan for this species notes the importance of protecting tree-hollows and foraging habitat for this species within 20km of a colony. The proposal will result in the loss of 1.1 ha of potential foraging habitat and the removal of tree-hollows. The EIS states that where possible, hollow bearing trees in the easement will be retained, and this will be determined during the construction and operation phase. Additional mitigation measures to

minimise the impacts on the Superb Parrot are provided in Section 3.10.10. The EIS concludes that due to the small extent of habitat to be removed and the available habitat within the region (over 5000 ha).

The Authority notes that providing the mitigation measures are implemented, impacts associated with the proposal on the Superb Parrot are expected to be avoided and mitigated.

3.10.5. Golden Sun Moth

The Golden Sun Moth (*Synemon plana*) is listed as endangered under the NC Act and critically endangered under the EPBC Act. Golden Sun Moth generally occurs in natural temperate grasslands and open grassy woodlands dominated by more than 40% coverage of wallaby grass. The species has also been found to have a broader tolerance for other species compositions and has been recorded in exotic grasslands displaying a particular preference for Chilean needle-grass (*Nassella neesiana*).

In the ACT currently, 27 sites have known population of the Golden Sun moth, with extensive populations in Majura Field Firing Range, Canberra International Airport and the Belconnen Naval station. The EIS notes that the species has been recorded approximately 2 km away at MacGregor West.

The EIS notes that the project site has been previously cleared for agricultural, and the majority of the site is dominated by exotic grasslands. The EIS identified the habitat within the project site as marginal, and the likelihood of the species to occur as low.

3.10.5.1. Known threats

Major threats to the Golden Sun Moth as outlined in the species approved conservation advice include:

- loss and degradation of wallaby grass-dominated native temperate grasslands within the species range
- soil disturbance
- fire; and
- predation.

3.10.5.2. Potential impacts

The EIS states that no Golden Sun Moths were recorded within the project site, despite targeted surveys during suitable conditions. Based on the targeted surveys, the EIS states that it is unlikely that the Golden Sun Moth utilises the habitat within the project site, therefore it is unlikely that habitat for this species would be impacted by the proposal. Furthermore, a number of general mitigation measures (Section 3.10.10) will be implemented to minimise impacts on threatened species.

3.10.6. Pink-Tailed Worm-Lizard

The Pink-tailed Worm-Lizard (*Aprasia parapulchella*) is listed as vulnerable under both the NC Act and under the EPBC Act. The Pink-Tailed Worm-Lizard's is known to occur in well drained open grassy woodland and woodland communities with rocky outcrops or scattered, partially buried rocks. This species is known to occur in a number of sites within the ACT, mainly along the Murrumbidgee and Molonglo River Corridor.

The EIS notes that the population in the Murrumbidgee/Molonglo River Corridor provides connectivity to allow for potential dispersal and therefore gene flow between localised populations. Two Pink-tailed Worm Lizards were recorded within the project site, south of Stockdill Drive, during the ecological surveys undertaken in 2015 and 2016. The EIS notes that this location is outside of the proposed easement and the proposed impact area.

3.10.6.1. Known threats

The main threats for the Pink-Tailed Worm-Lizard identified in the approved conservation advice include:

- habitat loss and fragmentation due to clearing for urban development, agriculture and forestry
- habitat degradation resulting from agricultural such as pasture improvement and grazing; and
- removal of rocks.

3.10.6.2. Potential impacts

The proposal will result in the loss of approximately 3.2 ha of potential habitat including:

- 1.4 ha of high potential habitat
- 1.7 ha of moderate potential habitat; and
- 0.15 ha of low potential habitat.

The proposal is likely to modify, remove or decrease the quality of habitat for the Pink-Tailed Worm-Lizard. The EIS notes that the siting of the proposed substation was refined to reduce the direct impacts on Pink-Tailed Worm-Lizard habitat, as a result approximately 0.29% of the potential available habitat will be removed within the habitat corridor.

The EIS proposed that restoration be undertaken to reduce the impacts associated with the proposal. This includes stockpiling of suitable rock uncovered during construction stage, and using the rock to create habitat in suitable native grassland vegetation and slope orientation. The EIS notes that this technique has been positive in rehabilitating Pink-Tailed Worm-Lizard in Lower Molonglo. In addition, preclearance surveys will be undertaken to determine if an onsite ecologist/fauna catcher is required during habitat disturbance to further minimise impacts on the Pink-Tailed Worm-Lizard. Proposed mitigation measures are outline in Section 3.10.10.

The Authority notes that providing the mitigation measures are implemented, impacts associated with the proposal on the Pink-Tailed Worm-Lizard are expected to be avoid and mitigated to a large extent.

3.10.7. Hoary Sunray

Hoary Sunray (*Leucochrysum albicans* var. *tricolor*) is listed as endangered under the EPBC Act. The Hoary Sunray is known to occur in a wide variety of grasslands, including grassy woodlands and open forest habitats. It may occur in natural (native) or semi-natural vegetation which may have a history of or be actively grazed or ungrazed habitat.

In the ACT the species occurs in semi-urban areas, on roadsides and in Mt Ainslie Nature Reserve, being highly dependent on the presence of bare ground for germination and establishment. The EIS notes that the Hoary Sunray was not recorded within the project site despite targeted surveys during the flowering period. Habitat for the Hoary Sunray within the project site is considered marginal due to historic and ongoing threats including clearing, weed invasion and grazing.

3.10.7.1. Known threats

Major threats to the Hoary Sunray as outlined in the species recovery plan include:

- habitat destruction and clearing including heavy soil disturbance
- weed invasion
- inappropriate fire regimes; and
- grazing.

3.10.7.2. Potential impacts

The EIS notes that the project site provides marginal habitat for the Hoary Sunray, however no individuals were identified during the targeted surveys. Given the marginal habitat within the project site and lack of records, the EIS concludes that the species is unlikely to occur or be impacted by the proposal.

3.10.8. Basalt Pepper-cress

Basalt Pepper-cress (*Lepidium hyssopifolium*) is listed as endangered under both the NC Act and the EPBC Act. The species is found in an extensive, but patchy distribution from south-eastern NSW, through Victoria to eastern parts of Tasmania.

Basalt Pepper-cress has been recorded in a range of habitats including woodland with grassy understorey, grassland, and exotic pastures. According to the Australian Government SPRAT database, the closest known population of Basalt Pepper-cress occurs at Bungendore in NSW.

The EIS notes that suitable habitat occurs within the project site based on the presence of associated vegetation. The habitat has been subjected to ongoing threats including grazing, and is considered as marginal habitat in the EIS. Targeted surveys were undertaken during the flowering period, however no species were recorded. Furthermore, the EIS notes that the species has not been recorded in the locality and there is a low likelihood of occurrence within the project site.

3.10.8.1. Known threats

Major threats to the Basalt Pepper-cress as outlined in the species recovery plan include:

- grazing and trampling by domestic stock and rabbits
- competition from weed and weed invasion
- loss of overstorey trees; and
- habitat disturbance.

The Recovery Plan also notes that while the Black pepper cress responds to disturbance, excessive soil disturbance can prevent seedling establishment.

3.10.8.2. Potential impacts

The EIS notes that the proposal would result in land clearing which has the potential to threaten the species. Given the marginal habitat within the project site and lack of records, the EIS concludes that the species is unlikely to occur or be impacted by the proposal.

3.10.9. Pale Pomaderris

Pale Pomaderris (*Pomaderris pallida*) is listed as vulnerable under both the NC Act and the EPBC Act. The Pale Pomaderris is currently known from the ACT, southern NSW and eastern Victoria. In the ACT, this species is scattered along the Cotter, Paddys and Murrumbidgee Rivers and through the Molonglo Gorge. Habitat for this species occurs in dry open forest and shrub communities associated with Brittle Gum, Red Stringybark or *Callitris* spp. woodland.

Habitat within the project site is identified as marginal in the EIS, due to historic and ongoing threats such as grazing, clearing and weed invasion. Targeted surveys were undertaken for this species during its flowering period, however no individuals were recorded.

3.10.9.1. Known threats

Main threats to the Pale Pomaderris as outlined in the species approved conservation advice include:

- fragmentation and the loss of habitat
- rural residential development
- weed competition
- browsing by feral cats; and
- inappropriate fire regimes.

3.10.9.2. Potential impacts

The EIS notes that the project site provides marginal habitat for the Pale Pomaderris, however no individuals were identified during the targeted surveys. Given the marginal habitat within the project site and lack of records, the EIS considers that the species is unlikely to occur or be impacted by the proposal.

3.10.10. Mitigation Measures

Table 23 details the avoidance measures associated with MNES as proposed in the EIS.

Table 23 - Avoidance and mitigation measures (MNES)

Proposed mitigation measures	Stage of implementation
Project design has avoided areas of high conservation significance including hollow bearing trees, rocky-outcrops and native vegetation	Pre-construction
Fencing and site inductions will be undertaken to ensure avoidance, and minimise indirect impacts and disturbance	Construction and operation
Implement erosion and sediment controls, including stockpiling spoil in a manner to avoid the possibility of sediments entering waterways or migrating off-site.	Construction
<p>Prepare and implement a construction and environmental management plan including the following key sub-plans relevant to MNES:</p> <p><u>A weed management plan</u> that provides measures to prevent the spread of invasive species including but not limited to:</p> <ul style="list-style-type: none"> - undertaking weed control; - wash down of vehicles, machinery and equipment; and - ensure imported fill is certified as pathogen and weed free; and - Monitoring. <p><u>Tree management plan</u> which includes but not limited to:</p> <ul style="list-style-type: none"> - pre-clearance surveys for mistletoe and hollow-bearing trees- where possible these will be avoided; - maps clearly identifying trees to be removed; - measure to recover hollows that are felled and where possible these will be re-used; provision of nest boxes -50% of these will be installed prior to clearing; and 	Pre-construction, construction and operation

- provision of an onsite ecologist spotter/catcher during habitat disturbance.

Pink-Tailed Worm Lizard management plan including the following control:

- rehabilitation and restoration of the Pink-Tailed Worm Lizard habitat (include placing any cleared rock outside Impact area and revegetation with suitable);
- prior to works commencing fencing will be installed around Pink-Tailed Worm Lizard habitat at proposed substation site; and
- clearing of Pink-tailed Worm-Lizard habitat will be undertaken during optimal survey conditions for the species (September to November)
- spotter catcher will be onsite to translocate any animals to suitable habitat in close proximity but outside project impact area.

Revegetation Plan including but not limited to:

- Revegetation of proposed substation site should consist of local native grasses, specifically *Themeda triandra* and *Poa sieberiana*.
- Where possible tree planting outside the easement corridor at key wildlife linkage points to maintain vegetation gap of less than 100

3.10.10.1. Australia's International obligations

Australia's obligations under the Convention on Conservation of Nature in the South Pacific (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.

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 EIS Assessment Report are not considered inconsistent with the Convention, which has the general aim of conservation of biodiversity.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (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 EIS Assessment Report are not inconsistent with CITES as the proposed action does not involve international trade.

3.10.10.2. Recovery Plans and Threat Abatement Plans

Three threat abatement plans have been identified as relevant to the listed threatened species considered above predation by feral cats, competition and land degradation by unmanaged goats, and competition and land degradation by rabbits.

The goal of the threatened abatement plans is to minimise the impact of exotic species on Biodiversity in Australia and territories by protecting affected threatened species, and preventing further species and ecological communities from becoming threatened.

The proposal has the potential to further increase the occurrence of pest species during the construction stage. The EIS notes that the proposal is unlikely to exacerbate the threats on listed species.

The following recovery plans are identified as relevant to the proposal:

- Department of the Environment (2016). *National Recovery Plan for the Regent Honeyeater* (*Anthochaera phrygia*). Canberra, ACT: Commonwealth of Australia
- Baker-Gabb, D. (2011). *National Recovery Plan for the Superb Parrot* (*Polytelis swainsonii*). Department of Sustainability and Environment, Melbourne.
- Sinclair, S.J. (2010). *National Recovery Plan for the Hoary Sunray* (*Leucochrysum albicans* var. *tricolor*). Department of Sustainability and Environment, Melbourne
- Tumino, M. (2010). *National Recovery Plan for the Basalt Peppercress* (*Lepidium hyssopifolium*). Department of Sustainability and Environment, Melbourne

This EIS Assessment Report has taken into account the relevant threatened abatement plans and recovery plans in assessing the impacts of the proposal, proposed mitigation measures, and in providing recommendations for conditions. The Authority considers the proposal is not inconsistent with the above threat abatement plans and/or recovery plans.

3.10.10.3. Conservation Advice

The approved conservation advice(s) relevant to this proposal are:

- Threatened Species Scientific Committee (2015). Approved Conservation Advice for *Anthochaera Phrygia* (Regent honeyeater). Commonwealth of Australia, Canberra.
- Threatened Species Scientific Committee (2016). Approved Conservation Advice for *Polytelis swainsonii* (Superb Parrot). Commonwealth of Australia, Canberra.
- Threatened Species Scientific Committee (2015). Approved Conservation Advice for *Aprasia parapulchella* (Pink-tailed Worm-lizard) Commonwealth of Australia, Canberra.
- Threatened Species Scientific Committee (2013). Approved Conservation Advice for *Syemon plana* (Golden Sun Moth) Commonwealth of Australia, Canberra.
- Threatened Species Scientific Committee (2008). Approved Conservation Advice for *Pomaderris pallida* (Pale Pomaderris). Commonwealth of Australia, Canberra.

The approved conservation advice provides information relating to the species distribution, habitat threats and conservation actions. The approved conservation advice has been considered in assessing the impact of the proposal, proposed mitigation measures, and in providing recommendations for conditions.

3.10.11. Scoping document requirements

The table below details the risks associated with MNES as defined in the EIS.

Table 24 - Scoping document requirements (MNES)

Potential Impact	Risk Assessment			
	Risk (before mitigation)	Likelihood (after mitigation)	Consequence (after mitigation)	Residual risk
Impact on threatened species habitat (Commonwealth listed)	Unlikely	Unlikely	Minor	Low
Disturbance or loss of threatened ecological communities(ACT listed)	Likely	Possible	Minor	Low

Disturbance or loss of threatened species (ACT listed)	Likely	Certain	Minor	Low
--	--------	---------	-------	-----

3.10.12. Conclusion

The proposal will result in the loss of 1.1 ha of native vegetation, clearing and fragmentation of marginal habitat for threatened species; edge effects; and potential injury and mortality of individuals (birdstrike and road kill). The EIS notes that the proposal has been refined to avoid and minimise ecological impacts and a significant impact on MNES is considered unlikely. The EIS concludes that offsets are not required as the project will not have a residual impact on a MNES given the avoidance and proposed mitigation measures.

To ensure impacts on MNES are minimised, the Authority recommends that a construction and environmental management plan (CEMP) is prepared and implemented prior to construction. The CEMP must include the sub-plans identified in Table 22 above. The CEMP will provide a framework to manage the risk of impacts to listed threatened species and ecological communities from the proposal.

The Authority considers that the impacts of the proposal on threatened species and communities are acceptable, subject to implementation avoidance and mitigation measures described in the EIS and compliance with the recommended conditions.

3.11. Socio-economic and health

The options for the proposal were considered and determined by the proponent based on security of supply, the ecological impacts, technical requirements, cost and impacts on the surrounding development. According to the EIS, the options were determined by balancing the impacts to the area as well as financial cost to secure a second electricity connection to the ACT.

The Authority considers that the proponent has undertaken a detailed assessment of social and economic impacts associated with the project and proposed a range of mitigation and management measures to reduce these impacts as far as practicable.

3.12. Environmental Management Plan

Two Construction Environmental Management Plan's (CEMP's) have been proposed in the EIS to set out the framework for continuing management, mitigation, monitoring and, where relevant, adaptive management programs for the relevant impacts of the proposal. The key strategies to be included in the CEMP's are summarised below:

- mitigation measures to reduce impacts as far as possible;
- all relevant requirements and commitments in planning approval conditions;
- applicable legislative requirements;
- any surveillance, monitoring, auditing and corrective actions;
- roles and responsibilities; and
- incorporate a complaints management system.

The key strategies will be addressed in a number of sub-plans including:

- Biodiversity and rehabilitation management plan (including site maps);
- Weed management plan;

- Tree management and revegetation plan;
- Construction traffic management plan;
- Construction noise and vibration management plan;
- Heritage management plan
- Soil, water and contaminated land management plan;
- Construction air quality management plan;
- Waste and recycling management plan;
- Construction emergency response plan;
- Hazardous materials management plan; and
- Emergency management plan.

The CEMP Will need to be prepared by the proponent and approved by the planning and land authority prior to construction. The CEMP will be a condition imposed in the concurrent development applications (DA's 201732485 and 201732500).

3.13. Offsets

The *ACT Environmental Offsets Policy* applies to proposals that are likely to impact on MNES where all feasible and appropriate avoidance and mitigation measures have been considered. The use of offsets are applied to ensure the impacts from the loss of ecological communities and habitat are balanced by commensurate gains in extent or quality elsewhere. Offset are measures that compensate for residual impacts of an action on the environment, after avoidance and mitigation measures have been undertaken.

The EIS notes that since the preparation of the referral additional ecological surveys have been undertaken and the proposal has been refined to reduce ecological impacts. This includes:

- avoidance of impacts on BGW in the north of the project site; and
- siting of the proposed substation to minimise impacts on the PTWL and woodland habitat including ring of hollow-bearing trees.

As discussed above, mitigation measure have been proposed to minimise impacts on threatened species. The EIS notes that the proposed mitigation measures in conjunction with the refinement in design will minimise impacts on threatened species. The EIS concludes that no residual impacts to threatened species is considered likely and therefore offset are not required.

3.14. Conclusion of impact assessment

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

4. Policy considerations

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

4.1. Territory Plan 2008

4.1.1. Territory Plan Statement of Strategic Directions

The statement of strategic directions recognises that the ACT must be planned as both the setting for the National Capital and as a self-governing community in its own right. The statement also has a focus on principles for sustainable development relating to environmental, economic and social sustainability as well as spatial planning and urban design principles.

Some of the key principles in the statement of strategic directions include a balanced approach to economic, social and environmental impacts to ensure sustainable practices. The strategic directions also encourage cost-effective provision and management of existing and new infrastructure and services, taking into account whole-of-life and whole-of system costs, including the ecological footprint of proposed developments and activities.

The EIS documentation is considered to be consistent with the statement of strategic directions in the Territory Plan. Relevant principles have been considered both specifically in the EIS documentation and more broadly throughout the EIS.

4.1.2. Territory Plan codes

Various codes apply under the Territory Plan and are considered during the assessment of the development applications. The EIS was submitted concurrently with two development applications and will be determined only once an EIS is complete. It is noted that the EIS states that the development is generally consistent with the requirements of the Territory Plan.

4.2. National Capital Plan (NCP)

The object of the NCP is to ensure that Canberra and the Territory are planned and developed in accordance with their national significance. The NCP provides guidance for the planning, design and development of Designated Areas and other areas identified in the NCP with special requirements. The EIS states that the proposal meets the objectives of the NCP by maintaining a reliable source of electricity for the ACT, allowing for the ongoing development of various land uses across the ACT and does not directly impact on the areas identified in the plan.

4.3. AP2 – ACT Climate Change Strategy

The AP2 – ACT Climate Change Strategy government responsibilities in reaching greenhouse gas emission targets and provides guidance for policy in implementing actions for residential and non-residential sectors as well as actions relating to climate change adaptation.

The EIS has considered the impacts of climate change such as the potential for increased temperatures on operation and reliability of electrical infrastructure and associated elements such as increased bushfire risks. The proposal is considered to be consistent with the ACT Climate Change Strategies.

4.4. 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. The information detailed in the EIS demonstrated that the proposal was consistent with:

- ACT Planning Strategy;
- The Canberra Plan;
- Commonwealth Listing Advice Survey Guidelines and Referral Guidelines; and
- Molonglo Valley Strategic Assessment Area Plan.

5. Other EPBC Act considerations

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

In deciding whether or not to approve the taking of an action, and what conditions to attach to an approval, the Commonwealth Minister must not consider any matters that the Minister is not required or permitted, by Subdivision B, Division 1, Part 9 of the EPBC Act, to consider.

6. Other considerations

6.1. Principles of ecologically sustainable development

The principles of ecological sustainable development, as defined in Part 1, section 3A of the EPBC Act, are:

- 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 that 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.

The following ecological sustainable development principles have been considered in the EIS documentation and by the planning and land authority. It is considered that economic, environmental, social and equitable considerations are contained within the EIS documentation and inform decision making through the implementation of the following principles.

6.1.1. *The precautionary principle*

The precautionary principle has been addressed in the EIS and was considered by the planning and land authority in the preparation of this assessment report.

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. The EIS has identified that there are no threats of serious or irreversible environmental damage arising from the project. Accordingly, the precautionary principle is not enlivened for the project.

However, the proponent has thoroughly addressed all impacts in the EIS, and supporting documentation, and that a precautionary approach has been taken wherever relevant in relation to each individual impact. This is reflected in the assessment of the worst case scenario for a number of project impacts.

6.1.2. *The integration principle*

The long-term and short-term economic, environmental, social and equitable consideration have been considered by the planning and land authority in the preparation of this assessment report. These included the cumulative impacts of all past and present developments within the area, including known future proposals. The Authority is satisfied that the cumulative impacts have been addressed appropriately.

6.1.3. *The principle of inter-generational equity*

The principle of inter-generational equity has been addressed in the EIS and was considered by the planning and land authority in the preparation of this assessment report.

The proposal provides a heightened, more secure/reliable, electricity connection to the ACT that ensures future interruptions to the ACT's electricity supply is minimised. The EIS and supporting documentation has addressed short and long term impacts and provided mitigation measures to reduce the impacts. The impacts have been considered by this assessment report and determined to be reduced to a suitable level.

6.1.4. The conservation of biological diversity and ecological integrity

The conservation of biological diversity and ecological integrity has been addressed in the EIS and was considered by the planning and land authority in the preparation of this assessment report. Refer to EIS/assessment report (above) addressing biodiversity and Terrestrial flora and fauna.

6.1.5. Improved valuation, pricing and incentive mechanisms

Improved valuation, pricing and incentive mechanisms have been addressed in the EIS and was considered by the planning and land authority in the preparation of this assessment report. As noted above the EIS has addressed environmental impacts of the development and therefore have considered the environmental cost of the proposal. The impacts have been considered by this assessment report and determined to be reduced to a suitable level.

6.2. Proponent's environment history

Both Transgrid and Evoenergy have a proven record of development within the ACT and in other jurisdictions and the proponent is responsible for maintaining the existing network.

The EIS states that Transgrid and Evoenergy have not been subject to any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources.

7. Recommended conditions

After considering the revised EIS, the Authority recommends development assessment considerations to assist with the avoidance and mitigation of adverse environmental impacts, as outlined in Table 25 - Draft Conditions of Development Approval for ACT Second Electricity Supply Project.

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

Table 25 - Draft Conditions of Development Approval for ACT Second Electricity Supply Project

No.	Condition contents	Endorsement/approval	Construction stage	Draft condition of approval
1	General	Planning and land authority and relevant agencies as part of the detailed assessment of the DA's	Detailed design	All mitigation measures identified in part D of the EIS, for the detailed design, must be incorporated into the plans that were submitted as part of the development application. Where mitigation measures cannot be incorporated into the design each residual mitigation measure must be outlined in the construction environmental management plan (CEMP) – See recommended condition 2.
2	Construction environmental management plan	Planning and land authority	Prior to construction	<p>The proponent must prepare a Construction Environment Management Plan (CEMP) and obtain endorsement for the CEMP from the planning and land authority. The CEMP must include the commitments made in part D of the EIS and should be incorporated, as a minimum, into the following sub management plans:</p> <ul style="list-style-type: none"> • Biodiversity and rehabilitation management plan (including site maps); • Weed management plan; • Tree management and revegetation plan; • Construction traffic management plan; • Construction noise and vibration management plan; • Heritage management plan • Soil, water and contaminated land management plan; • Construction air quality management plan; • Waste and recycling management plan; • Construction emergency response plan; • Hazardous materials management plan; and • Emergency management plan.

3	Environment protection	Environment Protection Authority	Prior to construction	An environmental authorisation under the <i>Environment Protection Act 1997</i> must be obtained prior to works commencing on site.
4	Heritage considerations	ACT Heritage Council	Prior to and during construction	<p>Prior to the commencement of works:</p> <ol style="list-style-type: none"> Protective fencing is to be installed around Aboriginal places recorded as 'RC 1', 'RD 3', 'SD RA 1', 'SD RA2' and 'SD RA3'; following demarcation of heritage boundaries by a qualified archaeologist and RAOs; and Written notification of fence installation is to be provided to ACT Heritage. <p>The CEMP is to identify the above Aboriginal places and management controls for their protection; and also the Unanticipated Discovery Protocols described in Navin Officer Heritage Consultants (June 2018).</p> <p>All project personnel are to be made aware of CEMP heritage content through the induction process.</p> <p>Following completion of works, protective fencing is to be removed and written notification of this is to be provided to ACT Heritage.</p> <p>In the event that additional Aboriginal places and objects are encountered during construction works, the Unanticipated Discovery Protocols described in Navin Officer Heritage Consultants (June 2018) are to be implemented.</p>
5	Landowner engagement	Planning and land authority	Prior to and during construction	<p>Landowners shall be consulted regarding the schedule of works prior to the commencement of works at their property and ongoing through the construction program. Seven days' notice should be provided before commencement at new work areas to allow landowners to plan any stock movements or other activities on their land which may conflict with the construction works.</p> <p>All efforts shall be made to minimise temporary impacts to the</p>

				respective landowners and affected land shall be rehabilitated (where applicable) at the completion of construction activities progressively along the route.
6	Construction environmental management plan	Planning and land authority	Prior to and during construction	All workers shall be inducted onto the CEMP (including maps and any sub-management plans), site environmental conditions and sensitivities identified in this Revised EIS, and receive training as appropriate. All workers shall also be advised of any changes to work scope, environmental site conditions or management plans.
7	Environmental inspector and auditing	Planning and land authority	Prior to and during construction	A, suitably qualified, independent environmental inspector shall be appointed by TransGrid and Evoenergy to regularly audit the work activities to ensure that all mitigation measures are being effectively applied and that the work is being carried out in compliance with all environmental approval and legislative conditions.
8	Construction environmental management plan	Planning and land authority	During construction	All works must be in accordance with the endorsed construction environmental management plan and sub plans.
9	Community complaints and information register	Planning and land authority	During construction	All complaints received during the activity shall be recorded within a complaints register. Any environmental incidents shall be registered in TransGrid's Asset and Risk Management System and managed in accordance with TransGrid and Evoenergy's relevant procedures.
10	Reporting of incidents	Planning and land authority/Environment Protection Authority	During construction	All incidents and near misses shall be reported to TransGrid/Evoenergy (as relevant to the scope of works). All pollution incidents that threatens or harms the environment shall be reported immediately to the ACT Environment Protection Authority, and TransGrid/Evoenergy, in accordance with the <i>Environment Protection Act 1997</i> .
11	Operating Phase Environment and Sustainability Plan	Planning and land authority	Prior to operation	The proponent must prepare an Operating Phase Environment and Sustainability Plan prior to operation of the proposal. The Operational Environment Management Plan must include the commitments made in the EIS such as commitments to amend

				existing TransGrid/Evoenergy operational management procedures, the inclusion of updated environmental maps and other environmental management plans.
--	--	--	--	---

8. Recommended action on this EIS

Having regard to the documentation and information provided, the Authority has assessed the ACT Second Electricity Supply Project revised EIS and Addendum as meeting the requirements of Chapter 8 of the PD Act.

It is the Authority's assessment that the revised EIS and Addendum 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 ACT Second Electricity Supply Project proposal. The Proponent has proposed a range of avoidance, mitigation and management measures to reduce 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 and reduced by implementing these measures and the development application conditions specified in this report.

The influence of construction activity associated with the ACT Second Electricity Supply Project, and the subsequent environmental performance attributable to its ongoing operation, will be monitored by a variety of public agencies; particularly the Environment Protection Authority, planning and land authority, TCCS and DoEE.

In regards to the MNES, the proponent has provided sufficient information to enable the Australian Government Department of Environment 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.

Appendix A – Final scoping document



ACT
Government

Environment, Planning and
Sustainable Development

Form

Scoping Document

Under Part 8 of the *Planning and Development Act 2007*

APPLICATION NUMBER: 201700005		DATE OF THIS NOTICE: 7 April 2017
DATE LODGED: 13 February 2017		
PROJECT: Construction of power substation and associated transmission line works		
SITES:		
In the division of: BELCONNEN		
Block	Land Custodianship	
1462	ACT Parks and Conservation Service	
1469	ACT Parks and Conservation Service	
1582	Elvin Global Pty Ltd	
1586	ACT NoWaste, ACT Government Solicitors Office	
1559	NSW Electricity Networks Operations Pty Ltd as trustee for the NSW Electricity Operations Trust	
1600	Jenny Campbell	
1601	Graeme John Trevaskis and Glenis Margaret Trevaskis	
1605	Land Development Agency	
1606	Land Development Agency	
In the division of: HOLT		
Block	Section	Land Custodianship
15	99	Woodhaven Investments Pty Ltd
16	99	Woodhaven Investments Pty Ltd
APPLICANT: NSW Electricity Networks Operations Pty Ltd as trustee for the NSW Electricity Operations Trust		

SCOPING DOCUMENT:

(Note: See [Attachment B](#) for Glossary)

The Authority within the EPSDD received your application under Section 212(1) of the PD Act for Scoping of an EIS for the above proposed development. Pursuant to Section 212(2) of the PD Act the Authority has:

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

On 5 December 2016, a delegate of the Commonwealth Minister for the Environment and Energy determined the proposed action to be a controlled action under section 75 of the 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 EIS to meet the impact assessment requirements under both Commonwealth and ACT Legislation. The project will require approval from the Commonwealth Minister for Environment and Energy under part 9 of the EPBC Act before it can proceed.

Please note that the *Planning and Development (Bilateral Agreement) Amendment Bill 2014* came into effect on 2 April 2015. Further information about the amendments, including how it may relate to your proposal, is available on the Directorate's website at:

http://www.planning.act.gov.au/topics/design_build/da_assessment/environmental_assessment.

NB: The attached scoping document is final. The EIS must 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.

TERM OF SCOPING DOCUMENT

Pursuant to Section 215 of the PD Act, this Scoping Document is effective for 18 months from the day after the date of this notice.

FORM AND FORMAT OF EIS

The Authority requires that the Proponent prepares an EIS in the following form and format:

- the EIS must be prepared in accordance with section 50 of the *PD Regulation* and Schedule 4 of the *Environment Regulation*
- the EIS document sized A4 with maps and drawings in A4 or A3 format
- the proponent must supply three copies of the draft EIS and revised EIS
- the EIS must be presented for circulation and web posting in an electronic format
- Electronic documents are to achieve AA accessibility standard as defined in the *W3C Web Content Accessibility Guidelines 2.0*
- the Proponent must supply two CD/DVD copies of the draft EIS and three CD/DVD copies of the revised EIS. Additional CD/DVD copies must be produced on request
- digital files must not exceed 10 MB each
- 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 Final Scoping Document as closely as possible. A table that cross-references the EIS to the final scoping document must be included if the structure is different
- additional technical detail, including relevant data, technical reports and other sources of the EIS analysis must be provided in appendices
- maps, diagrams and other illustrative material should be included in the EIS to assist readers to interpret information.

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:

Pursuant to the PD Act, you are now required to:

- a) prepare a document (a **draft EIS**) that addresses each matter raised in the scoping document for the proposal
- b) pay the public notification fee once you receive the fee advice from Customer Services, Access Canberra
- c) prepare a document (a **revised EIS**) that addresses each matter raised in the Authority's comments and the representations on the draft EIS
- d) submit the revised EIS to the Authority for assessment.

If you have any queries about the requirements outlined in this scoping document, please contact Annalisa Dietrich or Poppy McRae to arrange a suitable time to discuss.



Delegate

Jonathan Teasdale

Impact Assessment and ACAT Coordination

Environment, Planning and Sustainable Development Directorate

7 April 2017

Contact

Annalisa Dietrich

Assessment Officer

Impact Assessment

Environment, Planning and Sustainable
Development Directorate

E: annalisa.dietrich@act.gov.au

T: (02) 6207 3639

Poppy McRae

Graduate

Impact Assessment

Environment, Planning and Sustainable
Development Directorate

E: poppy.mcrae@act.gov.au

T: (02) 6207 0730

GENERAL REQUIREMENTS FOR THE EIS**i. Cover Page**

The cover page must clearly display the following:

- the name of the proposal (project title)
- the block identifier and street address for the proposal
- the date of the preparation of the document
- full name and postal address of the designated proponent
- name of the person/organisation who prepared the documents
- address, telephone and email contact details for the person/organisation who prepared the document
- name of person/organisation for which the document was prepared.

ii. Glossary

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

iii. Executive Summary

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

1 Introduction

Summarise the proposal background and justification for the proposal.

2 Proposal Details**2.0 Project Description**

Provide a description of the proposal, including:

- a) the location of the land to which the proposal relates, including detailed maps
- b) if the land is leased – the lessee’s name
- c) if the land is unleased or public land – the custodian of the land
- d) the purposes for which the land may be used
- e) if the land is leased –
 - a. the division name, and block and section number of the land under the *Districts Act 2002*
 - b. the volume and folio of the lease in the register under the *Land Titles Act 1925*.
- f) clearly identify all lands subject to direct disturbance from the proposal and associated infrastructure and geomorphic features such as waterways and wetlands
- g) 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 those in the region affected by the proposal
- h) 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

- i) a description of the precise location of any works to be undertaken, structures to be built or elements of the proposal that may have environmental, social and/or economic relevant impacts
- j) a description of the construction methodologies for the proposal
- k) Future stages – provide a description of any future stages for the proposal.

2.1 *Future Expansion*

Provide a description of potential expansion of activities at the site past the proposed facility identified in the application documents.

2.2 *Alternatives to the proposal*

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

- a) reasons for selecting the location and siting of the proposal. Include any detailed analysis of site selection as an attachment to the EIS
- b) any matters considered to avoid or reduce potential impacts prior to the selection of the site
- c) details of the consequences of not proceeding with the proposal
- d) the criteria used for assessing alternatives.

For matters of national environmental significance, any feasible alternatives to the action must include a comparative description of the impacts of each alternative on the triggered matters of national environmental significance.

2.3 *Objectives*

Describe the objectives of and justification for the proposal.

3 **Legislative Context**

A description of the EIS process including any statutory approvals obtained or required for the proposal.

3.0 *Statutory requirements*

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

- *Planning and Development Act 2007*
- *Planning and Development Regulation 2008*
- *Environment Protection and Biodiversity Conservation Act 1999*
- *Environment Protection and Biodiversity Conservation Regulations 2000*
- Related statutory approvals.

3.1 *Other requirements*

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

- *Territory Plan 2008*
- *National Capital Plan*
- *AP2 - ACT Climate Change Strategy*

- Other relevant planning and environmental guidelines and management plans including:
 - Commonwealth Listing Advice, Survey Guidelines and Referral Guidelines. These documents may be found in the Department of Environment and Energy's Species Profile and Threats Database: <http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>
 - Any relevant recovery plans, threat abatement plans, or conservation advices (see <http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>)
 - Molonglo Valley Strategic Assessment Area
 - Molonglo Valley Plan for the Protection of Matters of National Environmental Significance September 2011.

3.1.1 *Ecologically sustainable development*

Provide a description of the proposed action in relation to the long-term and short-term considerations of economic development, social development and environmental protection. The proponent should ensure that the EIS adequately addresses the principles of ecologically sustainable development as defined by section 9 of the PD Act and section 3A of the EPBC Act.

The Commonwealth Minister for the Environment and Energy must take account of the precautionary principle in making a decision on whether or not to approve the proposal as defined in section 391(2) of the EPBC Act. The EIS must include a statement as to how this principle has been considered during the preparation of the EIS.

Provide a description of the proposed action in relation to the ecologically sustainable development principles, including:

- the long-term and short-term economic, environmental, social and equitable considerations;
- the precautionary principle which states that 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 that 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; and
- improved valuation, pricing and incentive mechanisms should be promoted.

3.1.2 *Territory Plan strategic directions*

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

4 Risk Assessment

4.0 *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. This should be based upon the Preliminary Risk Assessment (PRA) submitted with your request for the scoping application.

Should any risk levels change during the preparation of the EIS or any new risks become apparent, these must be assessed and included within the EIS, and where relevant, the residual risk assessment.

-Risk Assessment-			
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 <i>Risk Management – Principles and guidelines</i>			
Risk	Likelihood	Consequence	Risk rating

5 Assessment of Impacts

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

Table 1 identifies the impacts that the Authority has identified as potentially significant that must be assessed for risk in the EIS. The impacts were determined from the information submitted with the PRA, comments received from entities on the request for scoping document application and the Authority's assessment.

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

	Environmental Theme	Risk Identified
1	Landscape and Visual	<ul style="list-style-type: none"> Visual impact during construction Visual impacts of new infrastructure in the landscape(including lighting of the facility)
2	Terrestrial Flora and Fauna	<ul style="list-style-type: none"> Disturbance or loss of threatened ecological communities (ACT listed) Disturbance or loss of threatened ecological communities (Commonwealth listed) Disturbance or loss of threatened species (ACT listed) Disturbance or loss of threatened species(Commonwealth listed) Impact on threatened species habitat (ACT and Commonwealth listed)
3	Hazard and Risk	<ul style="list-style-type: none"> Safety risks for workers and the public during construction Danger to workers during future development / maintenance works Risk of the substation causing a bushfire or being damaged by fire Infrastructure failure causing fire or explosion Health risks for future adjacent residents resulting from EMF associated with high voltage powerlines Bushfire on neighbouring properties affecting the project
4	Traffic and Transport	<ul style="list-style-type: none"> Access to surrounding properties during construction

	Environmental Theme	Risk Identified
		<ul style="list-style-type: none"> Increased traffic movements during construction affecting the surrounding transport network
5	Noise and Vibration	<ul style="list-style-type: none"> Noise and vibration during construction Noise and vibration during operation of substation
6	Indigenous Heritage Sites	<ul style="list-style-type: none"> Impact of known indigenous heritage sites / objects Impact of undetected indigenous heritage sites / objects
7	Water Quality and Hydrology	<ul style="list-style-type: none"> Soil contamination through fuel spills from construction machinery used on site
8	Soils and Geology	<ul style="list-style-type: none"> Erosion and sedimentation causing pollution as a result of construction works Increased runoff from the site as result of increased non-permeable surfaces
9	Climate Change and Air Quality	<ul style="list-style-type: none"> Emissions associated with construction plant machinery during construction Dust from construction activities

5.0 Potentially significant impacts

Provide information, as required by sections 5.2 – 5.7, for each impact (listed above) with a risk level of medium or above as determined before any mitigation measures are applied.

5.1 Environmental conditions and values

Describe the environmental conditions and identify the environmental values for each aspect (air, water and soil quality and presence of existing pollution or contamination, the existing noise and visual conditions). This section should outline the existing environmental conditions (baseline information, prior to the development including effects of current land uses).

5.2 Investigations

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

5.3 Impacts

Describe the effects of the environmental impact as a result of construction and operation for each environmental aspect (including cumulative, consequential and indirect effects) on physical and ecological systems and human communities. Particular emphasis should be placed on the potentially significant impacts identified in the risk assessment.

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.

5.4 Avoidance, Mitigation and offsets

Discuss the proposed safeguards and mitigation measures proposed to be taken for the environmental management of the land to which the proposal relates for the environmental themes identified in Table 1. This is to include:

- a description and an assessment of the proposed impact avoidance, mitigation or offsetting measures to address potential impacts from the proposal
- a description of the expected or predicted effectiveness of the mitigation and management measures.
- any statutory or policy basis for the mitigation measures
- an outline of an environmental management plan 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
- the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program.

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: <http://www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy>

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 publically available on the proponent's website if the project is subsequently approved under the EPBC Act.

5.5 Expected condition

A description of the expected environmental conditions after the development and any impacts that have occurred, and mitigation measures have been applied. This should include a description of the environmental changes associated with any other planned projects which can be reasonably expected to occur.

5.6 Residual risk

Provide a table that details the residual risk for the potentially significant impacts identified. A residual risk assessment is the level of impact after the mitigation measures have been applied. A residual risk assessment is only required where the significance of impact is determined as medium or above. The calculation of the residual risk should take into account the influence of implementation of mitigation measures on the impacts identified by the risk assessment. A discussion of how the calculations were determined should also be included.

-Residual Risk Assessment-				
Provide a table with the headings below to describe the risks identified and the original risk rating without any mitigation. The residual risk assessment will include the consideration of management, mitigation and monitoring strategies applied to each risk identified. The residual risk rating describes the final risk with the mitigation measures in place.				
Impact identified in Section 4.0	Original risk rating from items identified in 4.0	Residual likelihood	Residual consequence	Residual risk rating

5.7 General Information

In addition to the risks identified in Table 1, the following information should be provided. This information may be provided in the relevant section of the EIS which addresses the risks associated with each environmental aspect.

5.7.1 Planning and land status

- Include a description of planning context of the area where the project will be located.
- Describe planning and development status of any land or project relevant to the proposal.
- Describe land use of the proposed land and any land to be affected.

5.7.2 Materials and waste

- Describe hazardous materials and dangerous chemicals to be used or stored on site during construction and operation.
- Describe the nature, sources, location and quantities of all materials to be handled, including the storage, stockpiling and disposal of materials and waste.

5.7.3 Landscape and visual

- Undertake a visual assessment of the site and surrounds to describe the current landscape character of the area.
- Identify important view sheds and significant views and vistas to and from the site.
- Conduct a visual impact analysis that details predicted impacts the proposal may have on the landscape character of the site and surrounds.

5.7.4 Soils, water and contamination

- Describe the soil and geology features of the area.
- Describe the present and potential water uses and users within the affected catchment of the proposal. Include a map of the catchment.
- Describe how water will be managed on the site.
- Provide information on the stormwater management both during construction and during operation including any on site detention and water quality protection measures.
- Describe the current groundwater quality and measures proposed to maintain and monitor ground water quality.

5.7.5 Air quality

- Discuss the potential air emissions from the proposed development during construction and operation.

5.7.6 Traffic and transport

- Describe arrangements for the transport of construction materials, equipment, products, wastes and personnel during both the construction phase and operational phases of the development proposal.
- Include a description of the volume of traffic generated during construction and operation for the life of the facility.
- Include details of vehicle traffic, transit routes and transport of heavy and oversize loads (including types and composition).

5.7.7 All other impacts

- Describe any potential impacts that have not been discussed in the previous sections.

5.7.8 Matters of National Environmental Significance

Identify EPBC Act listed threatened species and communities potentially present on or off-site that could be affected, directly or indirectly, by the proposal. The Department of Environment and Energy has identified that the project may or is likely to have a significant impact on the following EPBC Act listed threatened species and communities:

- Regent Honeyeater (*Anthochaera phrygia*) (critically endangered)
- Golden Sun Moth (*Synemon plana*) (critically endangered)
- Hoary Sunray (*Leucochrysum albicans* var. *tricolor*) (endangered)
- Basalt Pepper-creep (*Lepidium hyssopifolium*) (endangered)
- Superb Parrot (*Polytelis swainsonii*) (vulnerable)
- Pink-tailed worm-lizard (*Aprasia parapulchella*) (vulnerable)
- Pale Pomaderris (*Pomaderris pallida*) (vulnerable).

For each matter of national environmental significance, the following information must be provided:

- A description of the relevant impacts of the action including:
 - a detailed discussion of known threats
 - a detailed assessment of direct and indirect impacts on areas of habitat and populations of listed threatened species during pre-construction, construction and operation
 - detailed information on the extent (in hectares) of known and potential habitat for each listed threatened species and community that occurs in the proposed site and surrounds which may potentially be impacted by the proposal
 - a detailed assessment of the nature and extent of the likely short term and long term relevant impacts
 - a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible.
- Any technical data and other information used or needed to make a detailed assessment of the relevant impacts including:
 - Baseline information on the distribution, ecology, and habitat preferences of the species or community (including a description of vegetation condition).
 - Maps showing the location of known records (including those from databases and all surveys previously conducted for the proposal). Copies of surveys are to be included.
 - Maps showing the potential habitat within and in the vicinity of the proposed site. These maps must highlight important habitat components for each relevant species, including, but not limited to, breeding habitat and water resources.
 - Maps showing the potential habitat within the region and discussion of the regional importance of the population and community.
 - Maps showing the locality of protected matters with an overlay of the proposed

development map.

- Information on the survey methodology used, including any limitations of the methodology and data collected for each matter of national environmental significance, as well as a justification for the survey methodology and survey sites employed. Survey methodology must be undertaken in a manner consistent with survey guidelines produced by the Australian Department of Environment and Energy where available.
- Information on the scientific reliability of survey investigations and conclusions, including the degree of certainty or statistical confidence where appropriate.

5.7.9 *Specific Risks Identified by the Commonwealth*

The proponent must respond to the following site specific risks that have been identified by the Australian Government:

- Permanent removal of approximately 1.6 hectares of potential foraging and breeding habitat for the EPBC listed critically endangered Regent Honeyeater (*Anthochaera phrygia*) and vulnerable Superb Parrot (*Polytelis swainsonii*).
- Permanent removal of habitat for the EPBC listed critically endangered Golden Sun Moth (*Synemon plana*).
- Permanent removal of approximately 33.9 hectares of suitable habitat for the EPBC listed endangered Basalt Pepper-cress (*Lepidium hyssopifolium*) and Hoary Sunray (*Leucochrysum albicans* var. *tricolor*).
- Permanent removal of approximately 5.7 hectares of habitat for EPBC listed vulnerable Pink-tailed worm-lizard (*Aprasia parapulchella*).
- Permanent removal of approximately 1.5 hectares of habitat for the EPBC listed vulnerable Pale Pomaderris (*Pomaderris pallida*).

6 Community and stakeholder consultation

6.1 The proponent must consult with:

- lease holders and land managers of land potentially impacted by the proposal
- any recreational groups which will be affected by the proposal
- any volunteer conservation, landscape management or land care groups active in the area to be affected by the proposal
- the local community.

6.2 Describe the community consultation undertaken (methodology and criteria for identifying stakeholders and the communication methods used).

6.3 The revised EIS must include 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.

6.4 Describe how any concerns have been considered in light of the proposal and any future development planned.

7 Recommendations

7.0 Provide a summary of any commitments to impact avoidance, mitigation measures and other actions within the EIS.

7.1 Provide a summary table outlining the residual risk assessment results.

- 7.2 Describe the monitoring parameters, monitoring points, frequency, data interpretation and reporting proposals.

8 Other relevant information

The proponent may wish to include issues outside of 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 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.

9 References

A reference list using standard referencing systems must be included.

10 Required Appendices

10.1 *Final scoping document for the EIS*

A copy of the final 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 final scoping document should be bound with the main body of the EIS for ease of cross-referencing.

10.2 *Scoping Document Reference*

Include a table that cross-references the EIS to the scoping document.

10.3 *Schedule 4 of the EPBC Regulation*

Include a table that cross-references all Commonwealth protected matters included in Schedule 4 of the *Environment Protection and Biodiversity Conservation Regulations 2000* to the EIS.

10.4 *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.

Consideration should be given to the *EPBC Act Policy Statement – Consideration of a person's environmental history when making decisions under the EPBC Act* available on the Department of the Environment and Energy's website at: www.environment.gov.au/resource/epbc-act-policy-statement-consideration-persons-environmental-history-when-making-decisions.

10.5 Information Sources

For information given the following must be stated:

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

10.6 Study team

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

10.7 Specialist studies

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

10.8 Research

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

Attachment A**2014 BILATERAL AGREEMENT – COMMONWEALTH GOVERNMENT REQUIREMENTS****A1. Specific Risks:**

The Department of Environment and Energy has identified the following key risks are associated with the proposal:

- Permanent removal of approximately 1.6 hectares of potential foraging and breeding habitat for the EPBC listed critically endangered Regent Honeyeater (*Anthochaera phrygia*) and vulnerable Superb Parrot (*Polytelis swainsonii*).
- Permanent removal of potential habitat for the EPBC listed critically endangered Golden Sun Moth (*Synemon plana*).
- Permanent removal of approximately 33.9 hectares of suitable habitat for the EPBC listed endangered Basalt Pepper-creep (*Lepidium hyssopifolium*) and Hoary Sunray (*Leucochrysum albicans* var. *tricolor*).
- Permanent removal of approximately 5.7 hectares of habitat for EPBC listed vulnerable Pink-tailed worm-lizard (*Aprasia parapulchella*).
- Permanent removal of approximately 1.5 hectares of habitat for the EPBC listed vulnerable Pale Pomaderris (*Pomaderris pallida*).

ENTITY REQUIREMENTS

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

A2. Conservator of Flora and Fauna

The Conservator of Flora and Fauna has identified that the following areas require further information and consideration of impacts:

Little Eagle

The Little Eagle is listed as vulnerable in both the ACT and NSW, but not nationally. In the ACT between 1988 and 2011, the number of known Little Eagle breeding territories with active nests declined from 13 to one. During the 2016/2017 breeding season a group of researchers and government officials located four nesting pairs in the ACT and two in nearby NSW. Of these, two nests were located near to the proposed development with both pairs likely to forage over the area of activity. One of the pair has nested for at least the last three years near the Straithnairn Art Complex. A GPS transmitter, providing a fixed location every hour and at midnight (for roosting locations), has been attached to the male bird of the Straithnairn pair for the last 18 months. The data indicates that the Little Eagle is fairly regularly flying over the site of the new substation and new transmission lines. Another nest is on the edge of the Lands Edge Property, within 2km of the proposed new transmission lines. The Straithnairn Little Eagle male has foraged up to 9km from the nest during breeding season.

The EIS needs to consider whether the installation of new wires may pose a particular risk of collision for the Little Eagles who will have been flying unimpeded across the proposed construction area for many years, and if so, can any mitigation measures be implemented to reduce the risk of collision with electricity wires e.g. clipping plastic flags, or plastic balls to the wires to increase visibility.

Superb Parrot

The Superb Parrot (*Polyte/is swainsonii*) is listed as a vulnerable species nationally, and in the NSW and the ACT, while it is considered endangered in Victoria.

Up until 2005 the Superb Parrot was a rare visitor to the Canberra area, but since then it has had a regular and now permanent occurrence. From 2010 - 2016, breeding activity of around 8-10 pairs has been observed in the Central Molonglo area, less than a kilometre from the proposed work area. Researchers at the Australian National University consider that climate change is likely to result in more Superb Parrots moving to the Canberra area over the next few decades. Birds appear to like to breed near other Superb Parrots, while suitable breed trees may be a limiting factor.

Given the possibility that the area of Superb Parrot breeding within the Molonglo Valley may expand in future years, the EIS should identify any suitable hollow bearing trees that may be impacted by the proposal and seek to minimise such impacts. A recent study by researchers at the Fenner School (Rayner et al) found that Superb Parrots nesting at Throsby in northern ACT chose to breed in trees that had:

- A trunk DBH of at least 75cm;
- Hollows at least 4m above the ground that were in or proximal to the main trunk; and
- Preferred near round entrance hollows about 11cm across and within the range of 8-18 cm.

A map showing the location of any tree with the development footprint that has the above hollow characteristics should be included in the EIS.

There may be a conflict between retaining such trees and minimising the impact on Pink-tailed Worm-lizard (PTWL) habitat at the proposed substation site. If this is the case the aim should be to retain at least some of the trees, while not exceeding greatly the area of PTWL impact.

Pink Tailed Worm Lizard

Recent work by the ACT Government in the Lower Molonglo has shown promise in the ability to restore PTWL habitat. This includes the stockpiling of suitable rock uncovered during construction within a development area, and then the laying out of the rock in rock poor areas of suitable native grassland vegetation and slope orientation. The application of such restoration techniques to this proposal should be considered within the EIS. Note this will not eliminate the need to offset the loss of any habitat, but could be a small component of an offset package *Endangered Vegetation*.

It is a little unclear in the current documentation where disturbance of native vegetation will occur through construction of new power poles or clearance under new powerlines. This should be clearly delineated in the EIS.

It is possible that either Natural Temperate Grassland (NTG) or a Box Gum Woodland understorey remains under the area mapped in the existing documents as Native Plantings. Given that the former extent of NTG is modelled to have occurred along what is now the eastern edge of the existing substation, much of the native plantings have probably occurred across the ecotone area between grassland and woodland. It is therefore possible that both communities occur within the one area. The condition of the understorey within the area of Native Plantings should be assessed as part of the EIS and it should be determined whether any of it meets the criteria of either or both of the endangered communities.

Rosenberg's Monitor

It is possible that a sparse population of Rosenberg's Monitor, a goanna listed as threatened in NSW and which is rare in the ACT, may occur along the Murrumbidgee River Valley. Several sightings with wildlife cameras have recently been observed at Ginninderra Falls about 6km to the north. This goanna is susceptible to becoming roadkill, as it may bask of bitumen roads and is not apt at moving out of the way of on-coming traffic. Whether or not the construction and maintenance of the facility will greatly increase road traffic along Stockdill Drive and the potential consequences of this to the lizard should be discussed in the EIS.

A3. Icon Water

Existing land uses by utilities are only generally specified in the scoping document (Section 5.13) with a commitment to "relocation / adjustment / protection of these services" during consideration/consultation during an EIS.

A broadly relevant risk has been identified in Table 7.4. The proposed new ActewAGL/Transgrid easement has not been overlaid with other utility services in the provided documentation.

Icon Water has requested to be identified as a stakeholder in section 6 of the proposed activity documentation given:

- the broad potential for interaction with current/future water, effluent and sewage infrastructure (including anticipated Riverview requirements); and
- the specific interaction with Lower Molonglo Water Quality Control Centre (LMWQCC), where the majority of Canberra's sewage is treated, including:
 - potentially significant interactions with the two incoming trunk sewers for conveying Canberra's sewage (shown as red lines on attached map);
 - the outgoing non-potable water supply line from LMWQCC to the uphill winery, golf club and non-potable filling station (running mostly along the eastern side of Stockdill Drive);

- other services (electricity supply required to power the plant, possible future natural gas supply line); and
- ongoing access (personnel/contractors, chemical supply, waste removal, liquid waste recieval facility).

A4. ACT Heritage Council

The Council understands that the project aims to provide a secure electricity supply to the ACT, through the construction of a new 330/132 kV substation near Stockdill Drive, and the construction of a new transmission line to connect this substation with the existing Canberra substation on Parkwood Road. A preliminary project area is identified in the referral, which will be refined through the EIS process, and which includes areas up to 400 metres from proposed substations, and up to 100 metres from proposed transmission easements.

The referral is informed by the *“Desktop Cultural Heritage Assessment. ACT Second Electrical Supply Project. Holt, Belconnen District ACT”* (Navin Officer Heritage Consultants, February 2017); the key findings and recommendations of which are:

- Four Aboriginal places are known within the project area, being one culturally modified tree (RD9), three surface artefact scatters (WB4, RC1 and RD3). One recorded potential archaeological deposit (PAD6), also occurs within the project area, which may contain subsurface Aboriginal objects;
- One historic heritage place is recorded within the project area, being a group of four rock cairns (WB/H4);
- The project area has not been subject to systematic archaeological survey, and has potential to contain additional, currently unrecorded, Aboriginal places and objects;
- A cultural heritage assessment (CHA) should be undertaken as part of the EIS, to identify potential heritage impacts of the project. The CHA should include an archaeological survey and be informed by consultation with Representative Aboriginal Organisations;
- Archaeological excavation should be undertaken for any PAD areas identified within proposed development areas, subject to Excavation Permit approval from the Council; and
- Following further heritage assessment, a ‘Statement of Heritage Effect’ (SHE) application to the Council will be required for the project.

The Council confirms that the ACT Second Electricity Supply Project area contains Aboriginal places and objects which may be damaged by the proposed development, and that a CHA is required as part of the EIS.

In this context, the EIS scoping document should identify the following heritage assessment requirements:

- Prepare a Cultural Heritage Assessment (CHA) of the preliminary project area, in accordance with Council’s 2015 *‘Cultural Heritage Reporting Policy’* and the *‘Burra Charter’* and related Practice Notes (Australia ICOMOS 2013);
- Prepare the CHA in collaboration with Representative Aboriginal Organisations (RAOs), to ensure cultural significance values of place are considered in the significance assessment,

impact assessment and heritage management framework. Consultation should be planned to reflect the principles outlined in *'Ask First: A guide to respecting Indigenous heritage places and values'* (Australian Heritage Commission 2001);

- Where the CHA identifies that archaeological excavation is required to adequately assess the heritage significance of Aboriginal places or objects within the project area, the following should also be undertaken:
 - A 'Research Design and Methodology' should be prepared in consultation with RAOs, and set out the aims, methods and intended outcomes of proposed excavation;
 - An application to excavation should be made under Section 61E of the *Heritage Act 2004*, informed by the Research Design and Methodology;
 - Following approval of the permit to excavate under Section 61F of the *Heritage Act 2004*, archaeological excavation should be undertaken in compliance with that approval; and
- Should the CHA and any archaeological excavation identify that Aboriginal places and objects will be impacted by proposed works, opportunities for heritage conservation outcomes should be considered. Where impacts cannot be avoided through design amendments, impact mitigation strategies should also be identified.

The Council also provides the following comments on the desktop heritage assessment, to inform the project CHA:

- An Aboriginal place recorded as 'CR3a' also occurs within the ACT Second Electricity Supply Project area, and this site should be considered as part of the CHA;
- The rock cairn site identified as 'WB/H4' is recorded as 'WB/H5' on the ACT Heritage database;
- ACT Heritage records on WB/H5 indicate that it is removed from the ACT Second Electricity Supply Project area, and should this be confirmed by a heritage inspection, no further assessment of this heritage site will be required;
- Recent heritage investigation and management actions for the West Belconnen 'Ginninderry' development is of relevance to ACT Second Electricity Supply Project, and information on these actions and the current heritage status of Aboriginal places should be sought from the Council at the outset of the CHA process; and
- The desktop assessment recommends that, if the project is found to not impact heritage places, then a SHE application is to be made. The Council notes that SHE applications are only required when seeking *Heritage Act 2004* approval to damage an Aboriginal place or object, or to diminish the heritage significance of a place or object; and should the project not impact heritage places, a SHE application is not required.

A5. Health

The HPS requests that the EIS for the project consider the following:

- Any influence upon existing air quality including dust generation and dust movement while the site is under construction
- Recommendations set out by the Australian Radiation Protection and Nuclear Safety Agency in relation to minimum distances between sources of extremely low frequency Electric and magnetic fields, and current and future dwellings.

A6. Strategic Planning

Strategic Planning has provided the following comments:

- It appears that the scoping request has not specifically identified or referenced the future residents within the Woodheaven Green residential estate. These residents will be located immediately adjacent to the existing easement that contains the existing ActewAGL and the proposed Transgrid transmissions lines.
- The future residents, who have presumably already purchased properties, are located within Sections 119, 120, 122 and 128 Holt.
- Specifically, sections 5.1, 5.3.1, 5.7 and 5.11 of the EIS will need to ensure that these residents have been considered and impacts assessed.
- Section 5.7 also needs to considered cumulative effects of having two transmissions lines in close proximity within the existing easement.
- Section 5.11 will need to ensure that the impact on property values have also been assessed in the social and economic assessment. These properties would have recently been purchased and are possibly under construction.
- The associated level of risk with each of the above matters appears to have been identified appropriately with the potential exception of EMF. The study needs to be undertaken to confirm the risk.

For noting by the proponent only**A6. Transport Canberra and City Services**

No advice received.

A7. ActewAGL Electrical

ActewAGL made no comment on this proposal.

A8. Jemena

No advice received.

A9. ACT Emergency Services Agency

No advice received.

A10. Belconnen Community Council

No advice received.

A11. Land Development Agency

No advice received.

A12. Riverview Group

No advice received.

A13. Sustainability and Climate Change

No advice received.

Attachment B**GLOSSARY**

Authority: Means the ACT Planning and Land Authority.

Biodiversity: As defined in Section 528 of the *Environment Protection and Biodiversity Conservation Act 1999*.

Biodiversity corridor: A river corridor or wildlife corridor identified in the *Territory Plan 2008* or in a nature conservation strategy, or action plan, under Schedule 4 Section 4.1, definitions of the *Nature Conservation Act 2014*.

Clearing of native vegetation: The actions that are undertaken to native vegetation and listed under section 74 (1) of the *Nature Conservation Act 1980*,

Clinical Waste: waste as defined in the *Clinical Waste Act 1990*

Commonwealth Minister: The Commonwealth Minister administering the *Environment Protection and Biodiversity Conservation Act 1999* and includes a delegate of the Minister.

Commonwealth Department: The Australian Government Department administering the *Environment Protection and Biodiversity Conservation Act 1999*.

Controlled Action (EPBC): as defined under section 67 of the *Environment Protection and Biodiversity Conservation Act 1999*.

Critical habitat: As defined in Section 528 of the *Environment Protection and Biodiversity Conservation Act 1999*

Ecological community: A group of ecologically related species defined under the NC Act, or as defined in Section 528 of the *Environment Protection and Biodiversity Conservation Act 1999*.

Ecosystem: A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit, or as defined in Section 528 of the *Environment Protection and Biodiversity Conservation Act 1999*

Endangered: As defined in Section 528 of the *Environment Protection and Biodiversity Conservation Act 1999*, or an ecological community or a species defined under the NC Act.

Environment: As defined in section 528 of the *Environment Protection and Biodiversity Conservation Act 1999*. 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).

EIS: means Environmental Impact Statement.

EPBC Act: means *Environment Protection and Biodiversity Conservation Act 1999*.

Environment Regulations: *Environment Protection and Biodiversity Conservation Regulations 2000*.

EPSDD: Means the Environment, Planning and Sustainable Development Directorate.

Habitat: An area defined under NC Act, or as defined in Section 528 of the *Environment Protection and Biodiversity Conservation Act 1999*.

Impact: An event or circumstance defined under section 527E of the *Environment Protection and Biodiversity Conservation Act 1999*.

Impact Track: An assessment track that applies to a development proposal defined under the Planning and Development Act, section 123.

Long term: Greater than 15 years duration.

Major road: A road defined as such by the *Territory Plan 2008*.

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

Matters of National Environmental Significance (MNES): The following matters listed under Part 2, Division 1 of the *Environment Protection and Biodiversity Conservation Act 1999*:

- listed threatened species and ecological communities;
- migratory species protected under international agreements;
- Ramsar wetlands of international importance;
- the Commonwealth marine environment;
- World Heritage properties;
- National Heritage places;
- nuclear actions; and
- Great Barrier Reef Marine Park.

Native Species: The kinds of native animal and native plant defined under the Nature Conservation Act 1980.

Native vegetation: In relation to an area, means the kinds of vegetation indigenous to the area as listed under section 73 of the Nature Conservation Act 1980.

Protected matter: A species declared under section 34 of the Nature Conservation Act 1970 and a matter protected under section 34 of the *Environment Protection and Biodiversity Conservation Act 1999*. Also known as a matter of national environmental significance.

PD Act: Means the *Planning and Development Act 2007*.

PD Regulation: Means the Planning and Development Regulation 2008.

Protected Trees: A registered tree or a regulated tree defined under section 8 of the *Tree Protection Act 2005*.

Rare: A species or ecological communities defined under the *Nature Conservation (Criteria and Guidelines for Declaring Threatened Species and Communities) Determination 2008*.

Reserved area: An area of public land reserved under the *Territory Plan 2008* as a wilderness area, national park or nature reserve.

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, Section 212 (2).

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

Socio-economic: Involving both social and economic factors.

Threatening process: A process declared to be a threatening process under the Nature Conservation Act 1980 or as defined in Section 528 of the *Environment Protection and Biodiversity Conservation Act 1999*.

Threatened Species: A species is vulnerable or endangered, or an ecological community is endangered or a process is threatening under the Nature Conservation Act 1980 or matter protected under the *Environment Protection and Biodiversity Conservation Act 1999*.

Vulnerable: A species defined under the NC Act or as defined in Section 528 of the *Environment Protection and Biodiversity Conservation Act 1999*.

Wilderness area: An area of public land reserved under the *Territory Plan 2008* as a wilderness area.

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

B1 SCOPING DOCUMENT CROSS-REFERENCE

Table B.1 below identifies where each of the identified Scoping Document requirements have been addressed within this Revised EIS. Table B.2 identifies where the Attachment A requirements have been addressed within this Revised EIS.

Table B.1 Scoping Document requirements cross-reference

SCOPING DOCUMENT REQUIREMENTS	REVISED EIS SECTION ADDRESSING REQUIREMENT
i Cover Page The cover page must clearly display the following: <ul style="list-style-type: none"> — the name of the proposal (project title) — the block identifier and street address for the proposal — the date of the preparation of the document — full name and postal address of the designated proponent — name of the person/organisation who prepared the documents — address, telephone and email contact details for the person/organisation who prepared the document — name of person/organisation for which the document was prepared. 	Cover page and inside cover
ii Glossary Provide a glossary of technical terms, acronyms and abbreviations used in the Revised EIS.	Abbreviations
iii Executive Summary Provide a non-technical summary of the Revised EIS including a description of the proposal, key findings and recommendations.	Executive summary
1 Introduction Summarise the proposal background and justification for the proposal.	Chapter 1
2 Proposal Details	Chapter 2
2.0 Project Description Provide a description of the proposal, including: <ul style="list-style-type: none"> a the location of the land to which the proposal relates, including detailed maps 	Section 2.1.1 Figures 2.1, 2.2, 2.9, 2.11, 2.19
<ul style="list-style-type: none"> b if the land is leased – the lessee’s name 	Section 2.1.4
<ul style="list-style-type: none"> c if the land is unleased or public land – the custodian of the land 	Section 2.1.4
<ul style="list-style-type: none"> d the purposes for which the land may be used 	Land zoning - Section 2.1.4, Figure 2.9
<ul style="list-style-type: none"> e if the land is leased – <ul style="list-style-type: none"> i the division name, and block and section number of the land under the <i>Districts Act 2002</i> ii the volume and folio of the lease in the register under the <i>Land Titles Act 1925</i>. 	Section 2.1.4
<ul style="list-style-type: none"> f clearly identify all lands subject to direct disturbance from the proposal and associated infrastructure and geomorphic features such as waterways and wetlands 	Chapter 2, Figure 2.19

SCOPING DOCUMENT REQUIREMENTS	REVISED EIS SECTION ADDRESSING REQUIREMENT
<p>g 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 those in the region affected by the proposal</p>	<p>No other developments being undertaken by the proponent.</p> <p>Proposal background – Section 1.2</p> <p>Project need & objectives – Section 1.3</p>
<p>h 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</p>	<p>Chapter 2</p>
<p>i a description of the precise location of any works to be undertaken, structures to be built or elements of the proposal that may have environmental, social and/or economic relevant impacts</p>	<p>Chapter 2 – Project description</p> <p>Figures 2.11 – Project key features</p> <p>Figure 2.19 – Project impact footprint</p>
<p>j a description of the construction methodologies for the proposal</p>	<p>Section 2.4</p>
<p>k Future stages – provide a description of any future stages for the proposal.</p>	<p>Section 2.7</p>
<p>2.1 Future Expansion</p> <p>Provide a description of potential expansion of activities at the site past the proposed facility identified in the application documents.</p>	<p>Section 2.7</p>
<p>2.2 Alternatives to the proposal</p> <p>Provide details of any alternatives to the proposal considered in developing the proposal by providing a description of:</p> <ul style="list-style-type: none"> a reasons for selecting the location and siting of the proposal. Include any detailed analysis of site selection as an attachment to the Revised EIS b any matters considered to avoid or reduce potential impacts prior to the selection of the site c details of the consequences of not proceeding with the proposal d the criteria used for assessing alternatives. <p>For matters of national environmental significance, any feasible alternatives to the action must include a comparative description of the impacts of each alternative on the triggered matters of national environmental significance.</p>	<p>Section 2.6</p>
<p>2.3 Objectives</p> <p>Describe the objectives of and justification for the proposal.</p>	<p>Section 1.3 (Project need and objective)</p> <p>Section 22.1 (Justification)</p>

SCOPING DOCUMENT REQUIREMENTS	REVISED EIS SECTION ADDRESSING REQUIREMENT
3 Legislative context	Chapter 3
<p>A description of the Revised EIS process including any statutory approvals obtained or required for the proposal</p> <p>3.0 Statutory requirements</p> <p>The description must include information on statutory requirements for the preparation of a Revised EIS:</p> <ul style="list-style-type: none"> — <i>Planning and Development Act 2007</i> — <i>Planning and Development Regulation 2008</i> — <i>Environment Protection and Biodiversity Conservation Act 1999</i> — <i>Environment Protection and Biodiversity Conservation Regulations 2000</i> — Related statutory approvals. 	Sections 3.2 and 3.3
<p>3.1 Other requirements</p> <p>The description must also include information on how each of the following has been considered in the preparation of this Revised EIS:</p>	-
— <i>Territory Plan 2008</i>	Section 3.4.1
— <i>National Capital Plan</i>	Section 3.4.1
— <i>AP2 – ACT Climate Change Strategy</i>	Section 3.4.1
<p>— Other relevant planning and environmental guidelines and management plans including:</p> <ul style="list-style-type: none"> — Commonwealth Listing Advice, Survey Guidelines and Referral Guidelines. These documents may be found in the Department of Environment and Energy's Species Profile and Threats Database: http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl — Any relevant recovery plans, threat abatement plans, or conservation advices (see http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl) — Molonglo Valley Strategic Assessment Area <ul style="list-style-type: none"> — Molonglo Valley Plan for the Protection of Matters of National Environmental Significance September 2011. 	Addressed as relevant in <i>Volume 2 – Technical paper 2</i> – Biodiversity impact assessment
<p>3.1.1 Ecological sustainable development</p> <p>Provide a description of the proposed action in relation to the long-term and short-term considerations of economic development, social development and environmental protection. The proponent should ensure that this Revised EIS adequately addresses the principles of ecologically sustainable development as defined by section 9 of the PD Act and section 3A of the EPBC Act.</p> <p>The Commonwealth Minister for the Environment and Energy must take account of the precautionary principle in making a decision on whether or not to approve the proposal as defined in section 391(2) of the EPBC Act. The Revised EIS must include a statement as to how this principle has been considered during the preparation of the Revised EIS.</p>	Section 3.5
<p>3.1.2 Territory Plan strategic directions</p> <p>A statement must be provided regarding the proposal's compatibility with the principles in the Statement of Strategic Directions in the <i>Territory Plan 2008</i> (Section 2.1 - Strategic Direction).</p>	Section 3.4.2

SCOPING DOCUMENT REQUIREMENTS			REVISED EIS SECTION ADDRESSING REQUIREMENT
4 Risk assessment methodology Provide a risk assessment in accordance with the Australian and New Zealand Standard for risk management AS/NZS ISO 31000:2009 <i>Risk Management – Principles and guidelines</i> . The proposed criteria for determining which risks are potentially significant impacts must be described. This should be based upon the Preliminary Risk Assessment (PRA) submitted with your request for the scoping application. Should any risk levels change during the preparation of the Revised EIS or any new risks become apparent, these must be assessed and included within the Revised EIS, and where relevant, the residual risk assessment.			Chapter 5
5 Assessment of impacts Sufficient information is required to provide the Authority with an adequate understanding of the environmental impacts associated with the proposal. The impacts that the Authority has identified as potentially significant that must be assessed for risk in the Revised EIS (refer below – Table 1 reference). The impacts were determined from the information submitted with the PRA, comments received from entities on the request for scoping document application and the Authority's assessment.			Part C Chapters 6 to 20
TABLE 1	ENVIRONMENTAL THEME	RISK IDENTIFIED	
1	Landscape and Visual	<ul style="list-style-type: none"> — Visual impact during construction — Visual impacts of new infrastructure in the landscape (including lighting of the facility) 	Chapter 6
2	Terrestrial Flora and Fauna	<ul style="list-style-type: none"> — Disturbance or loss of threatened ecological communities (ACT listed) — Disturbance or loss of threatened ecological communities (Commonwealth listed) — Disturbance or loss of threatened species (ACT listed) — Disturbance or loss of threatened species (Commonwealth listed) — Impact on threatened species habitat (ACT and Commonwealth listed) 	Chapter 7
3	Hazard and Risk	<ul style="list-style-type: none"> — Safety risks for workers and the public during construction — Danger to workers during future development / maintenance works — Risk of the substation causing a bushfire or being damaged by fire — Infrastructure failure causing fire or explosion — Health risks for future adjacent residents resulting from EMF associated with high voltage powerlines — Bushfire on neighbouring properties affecting the Project 	Chapter 11 (EMF impacts) Chapter 20 (Hazard and risk impacts, including fire/ bushfire)
4	Traffic and Transport	<ul style="list-style-type: none"> — Access to surrounding properties during construction — Increased traffic movements during construction affecting the surrounding transport network 	Chapter 9
5	Noise and Vibration	<ul style="list-style-type: none"> — Noise and vibration during construction — Noise and vibration during operation of substation 	Chapter 10

TABLE 1	ENVIRONMENTAL THEME	RISK IDENTIFIED	
6	Indigenous Heritage Sites	<ul style="list-style-type: none"> — Impact of known indigenous heritage sites / objects — Impact of undetected indigenous heritage sites / objects 	Chapter 13
7	Water Quality and Hydrology	<ul style="list-style-type: none"> — Soil contamination through fuel spills from construction machinery used on site 	Chapter 15
8	Soils and Geology	<ul style="list-style-type: none"> — Erosion and sedimentation causing pollution as a result of construction works — Increased runoff from the site as result of increased non-permeable surfaces 	Chapter 14
9	Climate Change and Air Quality	<ul style="list-style-type: none"> — Emissions associated with construction plant machinery during construction — Dust from construction activities 	Chapter 16
SCOPING DOCUMENT REQUIREMENTS			REVISED EIS SECTION ADDRESSING REQUIREMENT
<p>5.0 Potentially significant impacts</p> <p>Provide information, as required by sections 5.2 – 5.7, for each impact (listed above) with a risk level of medium or above as determined before any mitigation measures are applied.</p> <p>5.1 Environmental conditions and values</p> <p>Describe the environmental conditions and identify the environmental values for each aspect (air, water and soil quality and presence of existing pollution or contamination, the existing noise and visual conditions). This section should outline the existing environmental conditions (baseline information, prior to the development including effects of current land uses).</p> <p>5.2 Investigations</p> <p>Identify the findings and results of any environmental investigation in relation to the land to which the proposal relates.</p> <p>5.3 Impacts</p> <p>Describe the effects of the environmental impact as a result of construction and operation for each environmental aspect (including cumulative, consequential and indirect effects) on physical and ecological systems and human communities. Particular emphasis should be placed on the potentially significant impacts identified in the risk assessment.</p> <p>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.</p> <p>Information must include any technical data and other information used or needed to make a detailed assessment of the relevant impacts.</p> <p>5.4 Avoidance, Mitigation and Offsets</p> <p>Discuss the proposed safeguards and mitigation measures proposed to be taken for the environmental management of the land to which the proposal relates for the environmental themes identified in Table 1. This is to include:</p> <ul style="list-style-type: none"> — a description and an assessment of the proposed impact avoidance, mitigation or offsetting measures to address potential impacts from the proposal — a description of the expected or predicted effectiveness of the mitigation and management measures. — any statutory or policy basis for the mitigation measures 			<p>For each issue a chapter has been prepared which addresses each of these aspects in turn (Chapters 6-20).</p> <p>Offsets are discussed only in relation to biodiversity issues in Chapter 7.</p>

SCOPING DOCUMENT REQUIREMENTS	REVISED EIS SECTION ADDRESSING REQUIREMENT
<ul style="list-style-type: none"> — an outline of an environmental management plan 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 — the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program. <p>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.</p> <p>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 <i>EPBC Offsets Policy (2012)</i> available from: http://www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy</p> <p>Describe the cost effectiveness of environmental mitigation or rehabilitation measures proposed and the expected or predicted effectiveness of those measures.</p> <p><i>Note: Any EMP in relation to this project is to be made publically available on the proponent's website if the project is subsequently approved under the EPBC Act.</i></p> <p>5.5 Expected condition</p> <p>A description of the expected environmental conditions after the development and any impacts that have occurred, and mitigation measures have been applied. This should include a description of the environmental changes associated with any other planned projects which can be reasonably expected to occur.</p> <p>5.6 Residual risk</p> <p>Provide a table that details the residual risk for the potentially significant impacts identified. A residual risk assessment is the level of impact after the mitigation measures have been applied. A residual risk assessment is only required where the significance of impact is determined as medium or above. The calculation of the residual risk should take into account the influence of implementation of mitigation measures on the impacts identified by the risk assessment. A discussion of how the calculations were determined should also be included.</p>	
<p>5.7 General Information</p> <p>In addition to the risks identified in Table 1, the following information should be provided. This information may be provided in the relevant section of the Revised EIS which addresses the risks associated with each environmental aspect.</p>	
<p>5.7.1 Planning and land status</p> <ul style="list-style-type: none"> — Include a description of planning context of the area where the Project will be located. — Describe planning and development status of any land or Project relevant to the proposal. — Describe land use of the proposed land and any land to be affected. 	Chapter 8

SCOPING DOCUMENT REQUIREMENTS	REVISED EIS SECTION ADDRESSING REQUIREMENT
<p><i>5.7.2 Materials and waste</i></p> <ul style="list-style-type: none"> — Describe hazardous materials and dangerous chemicals to be used or stored on site during construction and operation. — Describe the nature, sources, location and quantities of all materials to be handled, including the storage, stockpiling and disposal of materials and waste. 	<p>Description of hazardous materials and dangerous chemicals: Section 2.2.3.2 (operation phase), Section 2.4.2.1 (construction phase), Potential risks and management measures for these materials and chemicals – Chapter 20.</p> <p>Waste energy and resources requirements and impact assessment – Chapter 18.</p>
<p><i>5.7.3 Landscape and visual</i></p> <ul style="list-style-type: none"> — Undertake a visual assessment of the site and surrounds to describe the current landscape character of the area. — Identify important view sheds and significant views and vistas to and from the site. — Conduct a visual impact analysis that details predicted impacts the proposal may have on the landscape character of the site and surrounds. 	<p>Chapter 6</p>
<p><i>5.7.4 Soils, water and contamination</i></p> <ul style="list-style-type: none"> — Describe the soil and geology features of the area. — Describe the present and potential water uses and users within the affected catchment of the proposal. Include a map of the catchment. — Describe how water will be managed on the site. — Provide information on the stormwater management both during construction and during operation including any on site detention and water quality protection measures. — Describe the current groundwater quality and measures proposed to maintain and monitor ground water quality. 	<p>Soils, geology and contamination – Chapter 14</p> <p>Water quality and hydrology – Chapter 15</p>
<p><i>5.7.5 Air quality</i></p> <p>Discuss the potential air emissions from the proposed development during construction and operation.</p>	<p>Chapter 16</p>
<p><i>5.7.6 Traffic and transport</i></p> <ul style="list-style-type: none"> — Describe arrangements for the transport of construction materials, equipment, products, wastes and personnel during both the construction phase and operational phases of the development proposal. — Include a description of the volume of traffic generated during construction and operation for the life of the facility. — Include details of vehicle traffic, transit routes and transport of heavy and oversize loads (including types and composition). 	<p>Chapter 9</p>
<p><i>5.7.7 All other impacts</i></p> <p>Describe any potential impacts that have not been discussed in the previous sections.</p>	<p>Chapters 6-20 outlines the potential impacts from the Project.</p>

SCOPING DOCUMENT REQUIREMENTS	REVISED EIS SECTION ADDRESSING REQUIREMENT
<p>5.7.8 Matters of National Environmental Significance</p> <p>Identify EPBC Act listed threatened species and communities potentially present on or off-site that could be affected, directly or indirectly, by the proposal. The Department of Environment and Energy has identified that the Project may or is likely to have a significant impact on the following EPBC Act listed threatened species and communities:</p> <ul style="list-style-type: none"> — Regent Honeyeater (<i>Anthochaera phrygia</i>) (critically endangered) — Golden Sun Moth (<i>Synemon plana</i>) (critically endangered) — Hoary Sunray (<i>Leucochrysum albicans</i> var. <i>tricolor</i>) (endangered) — Basalt Pepper-cress (<i>Lepidium hyssopifolium</i>) (endangered) — Superb Parrot (<i>Polytelis swainsonii</i>) (vulnerable) — Pink-tailed worm-lizard (<i>Aprasia parapulchella</i>) (vulnerable) — Pale Pomaderris (<i>Pomaderris pallida</i>) (vulnerable). 	Chapter 7
<p>5.7.9 Specific Risks Identified by the Commonwealth</p> <p>The proponent must respond to the following site specific risks that have been identified by the Australian Government:</p> <ul style="list-style-type: none"> — Permanent removal of approximately 1.6 hectares of potential foraging and breeding habitat for the EPBC listed critically endangered Regent Honeyeater (<i>Anthochaera phrygia</i>) and vulnerable Superb Parrot (<i>Polytelis swainsonii</i>). — Permanent removal of habitat for the EPBC listed critically endangered Golden Sun Moth (<i>Synemon plana</i>). — Permanent removal of approximately 33.9 hectares of suitable habitat for the EPBC listed endangered Basalt Pepper-cress (<i>Lepidium hyssopifolium</i>) and Hoary Sunray (<i>Leucochrysum albicans</i> var. <i>tricolor</i>). — Permanent removal of approximately 5.7 hectares of habitat for EPBC listed vulnerable Pink-tailed worm-lizard (<i>Aprasia parapulchella</i>). — Permanent removal of approximately 1.5 hectares of habitat for the EPBC listed vulnerable Pale Pomaderris (<i>Pomaderris pallida</i>). 	Chapter 7
<p>6 Community and stakeholder consultation</p> <p>6.1 The proponent must consult with:</p> <ul style="list-style-type: none"> — lease holders and land managers of land potentially impacted by the proposal — any recreational groups which will be affected by the proposal — any volunteer conservation, landscape management or land care groups active in the area to be affected by the proposal — the local community. <p>6.2 Describe the community consultation undertaken (methodology and criteria for identifying stakeholders and the communication methods used).</p> <p>6.3 The revised EIS must include 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.</p> <p>6.4 Describe how any concerns have been considered in light of the proposal and any future development planned.</p>	Chapter 4
<p>7 Recommendations</p> <p>7.0 Provide a summary of any commitments to impact avoidance, mitigation measures and other actions within the Revised EIS.</p> <p>7.1 Provide a summary table outlining the residual risk assessment results.</p> <p>7.2 Describe the monitoring parameters, monitoring points, frequency, data interpretation and reporting proposals.</p>	Chapter 21

SCOPING DOCUMENT REQUIREMENTS	REVISED EIS SECTION ADDRESSING REQUIREMENT
<p>8 Other relevant information</p> <p>The proponent may wish to include issues outside of the scope of the Revised EIS, as a separate section of the Revised EIS. This allows the proponent to identify matters not required to be addressed in the Revised EIS, but that would be subject to development assessment 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.</p>	N/A
<p>9 References</p> <p>A reference list using standard referencing systems must be included.</p>	Chapter 23
<p>10 Required Appendices</p> <p>Final scoping document for the Revised EIS</p> <p>A copy of the final scoping document should be included in the Revised EIS. Where it is intended to bind appendices in a separate volume from the main body of the Revised EIS, the final scoping document should be bound with the main body of the Revised EIS for ease of cross-referencing.</p>	Appendix A
<p>10.1 Scoping Document Reference</p> <p>Include a table that cross-references the Revised EIS to the scoping document.</p>	Appendix B
<p>10.2 Schedule 4 of the EPBC Regulation</p> <p>Include a table that cross-references all Commonwealth protected matters included in Schedule 4 of the <i>Environment Protection and Biodiversity Conservation Regulations 2000</i> relevant to the Revised EIS.</p>	Appendix C
<p>10.3 Proponent's Environmental History</p> <p>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:</p> <ul style="list-style-type: none"> — the person proposing to take the action — for an action for which a person has applied for a permit, the person making the application. <p>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.</p>	Appendix D
<p>10.4 Information Sources</p> <p>For information given the following must be stated:</p> <ul style="list-style-type: none"> — the source of the information; and — how recent the information is; and — how the reliability of the information was tested; and — what uncertainties (if any) are in the information. 	Appendix E
<p>10.5 Study team</p> <p>The qualifications and experience of the study team and specialist sub-consultants and expert reviewers must be provided.</p>	Appendix F
<p>10.6 Specialist studies</p> <p>All reports generated based on specialist studies undertaken as part of the Revised EIS are to be included as appendices.</p>	Refer to Technical Papers 1 to 6 contained in Volume 2 of this Revised EIS
<p>10.7 Research</p> <p>Any proposals for researching alternative environmental management strategies or for obtaining any further necessary information should be outlined in an appendix.</p>	Appendix G

Table B.2 Scoping document Attachment A cross-reference

ATTACHMENT A REQUIREMENTS	WHERE ADDRESSED IN THE REVISED EIS
<p>2014 BILATERAL AGREEMENT – COMMONWEALTH GOVERNMENT REQUIREMENTS</p> <p>A1. Specific Risks:</p> <p>The Department of Environment and Energy has identified the following key risks are associated with the proposal:</p> <ul style="list-style-type: none"> — Permanent removal of approximately 1.6 hectares of potential foraging and breeding habitat for the EPBC listed critically endangered Regent Honeyeater (<i>Anthochaera phrygia</i>) and vulnerable Superb Parrot (<i>Polytelis swainsonii</i>). — Permanent removal of potential habitat for the EPBC listed critically endangered Golden Sun Moth (<i>Synemon plana</i>). — Permanent removal of approximately 33.9 hectares of suitable habitat for the EPBC listed endangered Basalt Pepper-cress (<i>Lepidium hyssopifolium</i>) and Hoary Sunray (<i>Leucochrysum albicans</i> var. <i>tricolor</i>). — Permanent removal of approximately 5.7 hectares of habitat for EPBC listed vulnerable Pink-tailed worm-lizard (<i>Aprasia parapulchella</i>). — Permanent removal of approximately 1.5 hectares of habitat for the EPBC listed vulnerable Pale Pomaderris (<i>Pomaderris pallida</i>). 	<p>Section 3.3, Chapter 7 & <i>Volume 2 – Technical paper 2</i> – Biodiversity impact assessment</p>
<p>ENTITY REQUIREMENTS</p> <p>Where not otherwise identified as a potentially significant impact, provide information in accordance with the requirements of the entities. If the issues raised by entities have been addressed in other sections of the Revised EIS, this must be cross referenced in this section.</p>	<p>—</p>
<p>A2. Conservator of Flora and Fauna</p> <p>The Conservator of Flora and Fauna has identified that the following areas require further information and consideration of impacts:</p>	<p>Chapter 7 & <i>Volume 2 - Technical paper 2</i> – Biodiversity impact assessment</p>
<p><i>Little Eagle</i></p> <p>The Little Eagle is listed as vulnerable in both the ACT and NSW, but not nationally. In the ACT between 1988 and 2011, the number of known Little Eagle breeding territories with active nests declined from 13 to one. During the 2016/2017 breeding season a group of researchers and government officials located four nesting pairs in the ACT and two in nearby NSW. Of these, two nests were located near to the proposed development with both pairs likely to forage over the area of activity. One of the pair has nested for at least the last three years near the Strathnairn Art Complex. A GPS transmitter, providing a fixed location every hour and at midnight (for roosting locations), has been attached to the male bird of the Strathnairn pair for the last 18 months. The data indicates that the Little Eagle is fairly regularly flying over the site of the new substation and new transmission lines. Another nest is on the edge of the Lands Edge Property, within 2 km of the proposed new transmission lines. The Strathnairn Little Eagle male has foraged up to 9 km from the nest during breeding season.</p> <p>The Revised EIS needs to consider whether the installation of new wires may pose a particular risk of collision for the Little Eagles who will have been flying unimpeded across the proposed construction area for many years, and if so, can any mitigation measures be implemented to reduce the risk of collision with electricity wires e.g. clipping plastic flags, or plastic balls to the wires to increase visibility.</p>	<p>Chapter 7 & <i>Volume 2 - Technical paper 2</i> – Biodiversity impact assessment</p>

ATTACHMENT A REQUIREMENTS	WHERE ADDRESSED IN THE REVISED EIS
<p><i>Superb Parrot</i></p> <p>The Superb Parrot (<i>Polyte/is swainsonii</i>) is listed as a vulnerable species nationally, and in the NSW and the ACT, while it is considered endangered in Victoria.</p> <p>Up until 2005 the Superb Parrot was a rare visitor to the Canberra area, but since then it has had a regular and now permanent occurrence. From 2010 - 2016, breeding activity of around 8–10 pairs has been observed in the Central Molonglo area, less than a kilometre from the proposed work area. Researchers at the Australian National University consider that climate change is likely to result in more Superb Parrots moving to the Canberra area over the next few decades. Birds appear to like to breed near other Superb Parrots, while suitable breed trees may be a limiting factor.</p> <p>Given the possibility that the area of Superb Parrot breeding within the Molonglo Valley may expand in future years, the Revised EIS should identify any suitable hollow bearing trees that may be impacted by the proposal and seek to minimise such impacts. A recent study by researchers at the Fenner School (Rayner et al) found that Superb Parrots nesting at Throsby in northern ACT chose to breed in trees that had:</p> <ul style="list-style-type: none"> — a trunk DBH of at least 75 cm; — hollows at least 4 m above the ground that were in or proximal to the main trunk; and — preferred near round entrance hollows about 11 cm across and within the range of 8–18 cm. <p>A map showing the location of any tree with the development footprint that has the above hollow characteristics should be included in the Revised EIS.</p> <p>There may be a conflict between retaining such trees and minimising the impact on Pink-tailed Worm-lizard (PTWL) habitat at the proposed substation site. If this is the case the aim</p>	<p>Chapter 7 & Volume 2 - <i>Technical paper 2</i> – Biodiversity impact assessment</p>
<p><i>Pink Tailed Worm Lizard</i></p> <p>Recent work by the ACT Government in the Lower Molonglo has shown promise in the ability to restore PTWL habitat. This includes the stockpiling of suitable rock uncovered during construction within a development area, and then the laying out of the rock in rock poor areas of suitable native grassland vegetation and slope orientation. The application of such restoration techniques to this proposal should be considered within the Revised EIS. Note this will not eliminate the need to offset the loss of any habitat, but could be a small component of an offset package <i>Endangered Vegetation</i>.</p>	<p>Chapter 7 & Volume 2 - <i>Technical paper 2</i> – Biodiversity impact assessment</p>
<p>It is a little unclear in the current documentation where disturbance of native vegetation will occur through construction of new power poles or clearance under new powerlines. This should be clearly delineated in the Revised EIS.</p>	<p>Chapter 7 & Volume 2 – <i>Technical paper 2</i> – Biodiversity impact assessment</p>
<p>It is possible that either Natural Temperate Grassland (NTG) or a Box Gum Woodland understorey remains under the area mapped in the existing documents as Native Plantings. Given that the former extent of NTG is modelled to have occurred along what is now the eastern edge of the existing substation, much of the native plantings have probably occurred across the ecotone area between grassland and woodland. It is therefore possible that both communities occur within the one area. The condition of the understorey within the area of Native Plantings should be assessed as part of the Revised EIS and it should be determined whether any of it meets the criteria of either or both of the endangered communities.</p>	<p>Chapter 7 & Volume 2 – <i>Technical paper 2</i> – Biodiversity impact assessment</p>

ATTACHMENT A REQUIREMENTS	WHERE ADDRESSED IN THE REVISED EIS
<p><i>Rosenberg's Monitor</i></p> <p>It is possible that a sparse population of Rosenberg's Monitor, a goanna listed as threatened in NSW and which is rare in the ACT, may occur along the Murrumbidgee River Valley. Several sightings with wildlife cameras have recently been observed at Ginninderra Falls about 6 km to the north. This goanna is susceptible to becoming roadkill, as it may bask of bitumen roads and is not apt at moving out of the way of on-coming traffic. Whether or not the construction and maintenance of the facility will greatly increase road traffic along Stockdill Drive and the potential consequences of this to the lizard should be discussed in the Revised EIS.</p>	<p>Chapter 7 & <i>Volume 2 – Technical paper 2 – Biodiversity impact assessment</i></p>
<p>A3. Icon Water</p> <p>Existing land uses by utilities are only generally specified in the scoping document (Section 5.13) with a commitment to “relocation / adjustment / protection of these services” during consideration/consultation during a Revised EIS.</p> <p>A broadly relevant risk has been identified in Table 7.4. The proposed new Evoenergy/TransGrid easement has not been overlaid with other utility services in the provided documentation.</p> <p>Icon Water has requested to be identified as a stakeholder in section 6 of the proposed activity documentation given:</p> <ul style="list-style-type: none"> — the broad potential for interaction with current/future water, effluent and sewage infrastructure (including anticipated Riverview requirements); and — the specific interaction with Lower Molonglo Water Quality Control Centre (LMWQCC), where the majority of Canberra's sewage is treated, including: <ul style="list-style-type: none"> — potentially significant interactions with the two incoming trunk sewers for conveying Canberra's sewage (shown as red lines on attached map) — the outgoing non-potable water supply line from LMWQCC to the uphill winery, golf club and non-potable filling station (running mostly along the eastern side of Stockdill Drive) — other services (electricity supply required to power the plant, possible future natural gas supply line); and — ongoing access (personnel/contractors, chemical supply, waste removal, liquid waste receival facility). 	<p>Section 4.3.1 (Consultation)</p> <p>Chapter 19 (Utilities)</p>
<p>A4. ACT Heritage Council</p> <p>The Council understands that the project aims to provide a secure electricity supply to the ACT, through the construction of a new 330/132 kV substation near Stockdill Drive, and the construction of a new transmission line to connect this substation with the existing Canberra Substation on Parkwood Road. A preliminary project area is identified in the referral, which will be refined through the Revised EIS process, and which includes areas up to 400 metres from proposed substations, and up to 100 metres from proposed transmission easements.</p> <p>The referral is informed by the “<i>Desktop Cultural Heritage Assessment. ACT Second Electrical Supply Project. Holt, Belconnen District ACT</i>” (Navin Officer Heritage Consultants, February 2017); the key findings and recommendations of which are:</p> <ul style="list-style-type: none"> — Four Aboriginal places are known within the project area, being one culturally modified tree (RD9), three surface artefact scatters (WB4, RC1 and RD3). One recorded potential archaeological deposit (PAD6), also occurs within the project area, which may contain subsurface Aboriginal objects — One historic heritage place is recorded within the project area, being a group of four rock cairns (WB/H4) — The project area has not been subject to systematic archaeological survey, and has potential to contain additional, currently unrecorded, Aboriginal places and objects 	<p>Chapter 12 and <i>Volume 2 - Technical paper 5 – Cultural heritage impact assessment</i></p>

ATTACHMENT A REQUIREMENTS	WHERE ADDRESSED IN THE REVISED EIS
<ul style="list-style-type: none"> — A cultural heritage assessment (CHA) should be undertaken as part of the Draft EIS, to identify potential heritage impacts of the project. The CHA should include an archaeological survey and be informed by consultation with Representative Aboriginal Organisations — Archaeological excavation should be undertaken for any PAD areas identified within proposed development areas, subject to Excavation Permit approval from the Council; and — Following further heritage assessment, a 'Statement of Heritage Effect' (SHE) application to the Council will be required for the project. <p>The Council confirms that the ACT Second Electricity Supply Project area contains Aboriginal places and objects which may be damaged by the proposed development, and that a CHA is required as part of the Draft EIS.</p> <p>In this context, the Revised EIS scoping document should identify the following heritage assessment requirements:</p> <ul style="list-style-type: none"> — Prepare a Cultural Heritage Assessment (CHA) of the preliminary project area, in accordance with Council's 2015 '<i>Cultural Heritage Reporting Policy</i>' and the '<i>Burra Charter</i>' and related Practice Notes (Australia ICOMOS 2013) — Prepare the CHA in collaboration with Representative Aboriginal Organisations (RAOs), to ensure cultural significance values of place are considered in the significance assessment, impact assessment and heritage management framework. Consultation should be planned to reflect the principles outlined in 'Ask First: A guide to respecting Indigenous heritage places and values' (Australian Heritage Commission 2001) — Where the CHA identifies that archaeological excavation is required to adequately assess the heritage significance of Aboriginal places or objects within the project area, the following should also be undertaken: <ul style="list-style-type: none"> — A 'Research Design and Methodology' should be prepared in consultation with RAOs, and set out the aims, methods and intended outcomes of proposed excavation — An application to excavation should be made under Section 61E of the <i>Heritage Act 2004</i>, informed by the Research Design and Methodology — Following approval of the permit to excavate under Section 61F of the <i>Heritage Act 2004</i>, archaeological excavation should be undertaken in compliance with that approval; and — Should the CHA and any archaeological excavation identify that Aboriginal places and objects will be impacted by proposed works, opportunities for heritage conservation outcomes should be considered. Where impacts cannot be avoided through design amendments, impact mitigation strategies should also be identified. <p>The Council also provides the following comments on the desktop heritage assessment, to inform the project CHA:</p> <ul style="list-style-type: none"> — An Aboriginal place recorded as 'CR3a' also occurs within the ACT Second Electricity Supply Project area, and this site should be considered as part of the CHA — The rock cairn site identified as 'WB/H4' is recorded as 'WB/H5' on the ACT Heritage database — ACT Heritage records on WB/H5 indicate that it is removed from the ACT Second Electricity Supply Project area, and should this be confirmed by a heritage inspection, no further assessment of this heritage site will be required — Recent heritage investigation and management actions for the Ginninderry development is of relevance to ACT Second Electricity Supply Project, and 	

ATTACHMENT A REQUIREMENTS	WHERE ADDRESSED IN THE REVISED EIS
<p>information on these actions and the current heritage status of Aboriginal places should be sought from the Council at the outset of the CHA process; and</p> <ul style="list-style-type: none"> — The desktop assessment recommends that, if the project is found to not impact heritage places, then a SHE application is to be made. The Council notes that SHE applications are only required when seeking <i>Heritage Act 2004</i> approval to damage an Aboriginal place or object, or to diminish the heritage significance of a place or object; and should the project not impact heritage places, a SHE application is not required. 	
<p>A5. Health</p> <p>The HPS requests that the Revised EIS for the project consider the following:</p> <ul style="list-style-type: none"> — Any influence upon existing air quality including dust generation and dust movement while the site is under construction — Recommendations set out by the Australian Radiation Protection and Nuclear Safety Agency in relation to minimum distances between sources of extremely low frequency Electric and magnetic fields, and current and future dwellings. 	<p>Air quality and dust – Chapter 16.</p> <p>Electric and magnetic fields – Chapter 11</p>
<p>A6. Strategic Planning</p> <p>Strategic Planning has provided the following comments:</p> <ul style="list-style-type: none"> — It appears that the scoping request has not specifically identified or referenced the future residents within the Woodhaven Green residential estate. These residents will be located immediately adjacent to the existing easement that contains the existing Evoenergy and the proposed TransGrid transmissions lines. — The future residents, who have presumably already purchased properties, are located within Sections 119, 120, 122 and 128 Holt. — Specifically, sections 5.1, 5.3.1, 5.7 and 5.11 of the Revised EIS will need to ensure that these residents have been considered and impacts assessed. — Section 5.7 also needs to considered cumulative effects of having two transmissions lines in close proximity within the existing easement. — Section 5.11 will need to ensure that the impact on property values have also been assessed in the social and economic assessment. These properties would have recently been purchased and are possibly under construction. — The associated level of risk with each of the above matters appears to have been identified appropriately with the potential exception of EMF. The study needs to be undertaken to confirm the risk. 	<p>Woodhaven Green residences (referred to within Revised EIS as Ginninderra Estate residences) have been considered throughout the Revised EIS as a potential sensitive receiver, including:</p> <p>Visual impacts – Chapter 6</p> <p>Land use and property impacts – Chapter 8</p> <p>Socio-economic impacts – Chapter 17</p> <p>Noise and vibration – Chapter 10</p> <p>Electric and magnetic fields – Chapter 11</p> <p>Air quality and dust: Chapter 16.</p>

ATTACHMENT A REQUIREMENTS	WHERE ADDRESSED IN THE REVISED EIS
<p>For noting by the proponent only</p> <p>A6. Transport Canberra and City Services No advice received.</p> <p>A7. Evoenergy Electrical Evoenergy made no comment on this proposal.</p> <p>A8. Jemena No advice received.</p> <p>A9. ACT Emergency Services Agency No advice received.</p> <p>A10. Belconnen Community Council No advice received.</p> <p>A11. Land Development Agency No advice received.</p> <p>A12. Riverview Group No advice received.</p> <p>A13. Sustainability and Climate Change No advice received.</p>	N/A

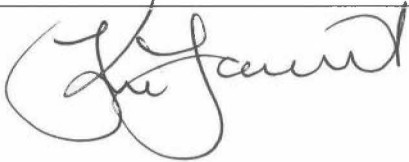
Appendix C – Commonwealth referral decision (2016/7784)



Notification of

**REFERRAL DECISION AND DESIGNATED PROPONENT – controlled action
Construction of new substation and associated transmission line works,
Belconnen / Holt, ACT (EPBC 2016/7784)**

This decision is made under section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Proposed action	To construct a new substation and associated transmission line works near Stockdill Drive, Holt, Australian Capital Territory [See EPBC Act referral 2016/7784]
Decision on proposed action	<p>The proposed action is a controlled action.</p> <p>The project will require assessment and approval under the EPBC Act before it can proceed.</p>
Relevant controlling provisions	<ul style="list-style-type: none">Listed threatened species and communities (sections 18 & 18A)
Designated proponent	<p>NSW Electricity Networks Operations Pty Limited as a trustee for NSW Electricity Operations Trust</p> <p>ACN: 609 169 959</p>
Assessment approach	The project will be assessed under the assessment bilateral agreement with the Australian Capital Territory.
Decision-maker	
Name and position	<p>Kim Farrant Assistant Secretary Assessments (NSW, ACT) and Fuel Branch</p>
Signature	
Date of decision	5.12.16

Appendix D – Section 224 notice



ACT
Government

Environment, Planning and
Sustainable Development

Heather Wagland
TransGrid
PO Box A1000
SYDNEY SOUTH NSW 1235

CC: Emma Taylor, Principal Environmental Scientist, WSP

Dear Ms Wagland

**Application 201700005 –Environmental Impact Statement (EIS)
Chance to Address Unaddressed Matters – Section 224 Notice**

I refer to the revised EIS submitted to the planning and land authority (the Authority) on 5 July 2018.

The Authority has performed an assessment of the revised EIS in accordance with section 222 of the *Planning and Development Act 2007* (PD Act). The Authority is not satisfied that the EIS sufficiently addresses each matter raised in the scoping document for the proposal. As a result, the Authority does not accept the EIS and is providing a notice of this effect under section 224 of the PD Act.

Further information is requested to demonstrate the potential visual impacts (and mitigation) from the (approximate) 49m high towers on the Woodhaven (Ginninderra) residential estate and particularly on those future residents who will be directly adjacent to the 'easement/reservation' that will accommodate the new 330kv transmission lines.

The visual impacts are to consider potential overshadowing from the towers; potential views from the residential dwellings (backing onto the 'easement/reservation') both from their private open space and from within the dwellings; and mitigation and treatment options.

Whilst the revised EIS and the supporting landscape and visual impact assessment identify that the addition of new infrastructure in the landscape will have a high risk level/significance rating, the concluding impact level (against PRV-4) is moderate with a medium residual risk. Please provide evidence to support this conclusion.

You must respond to this notice by providing the information in a revised EIS, or otherwise, by 19 January 2019. If you do not respond within this time, the Authority must reject the EIS.

If you have any questions, please contact the Assessment Officer, Dominic Riches, on (02) 6205 1834 or email dominic.riches@act.gov.au.

Yours sincerely,



James Bennett
Senior Manager, Impact Assessment

18 July 2018