EPBC Act referral

Australian Government
Department of Agriculture, Water and the Environment

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Title of proposal	2021/9055 - Central-West Orana REZ Transmission – Wollar Substation Upgrade Project

Section 1

Summary of your proposed action

1.1 Project industry type Energy Generation and Supply (renewable)

1.2 Provide a detailed description of the proposed action, including all proposed activities

TransGrid is seeking environmental planning approval for the construction and operation of new and upgraded high-voltage electricity transmission infrastructure to connect the Central-West Orana Renewable Energy Zone (REZ) with the existing electricity transmission network. The Central-West Orana REZ is the first of several renewable energy zones identified by the NSW Government for renewable energy and storage project development. It is supported by the NSW Transmission Infrastructure Strategy (NSW Department of Planning, Industry and Environment (DPIE), 2018), the NSW Electricity Strategy (DPIE, 2019a) and the NSW Electricity Infrastructure Roadmap (DPIE, 2020). The Central-West Orana REZ is anticipated to have a future generation capacity of at least 3,000 megawatts. TransGrid proposes to connect the Central-West Orana REZ to the existing electricity transmission network through the Central-West Orana REZ Transmission, which comprises two principal components:

-The Shared Network Infrastructure project, being new 330 kV and 500 kV transmission lines, substations and associated works to connect the Central-West Orana REZ to the existing electricity transmission network

-The Wollar Substation Upgrade project, comprising an upgrade to the existing Wollar substation and associated transmission infrastructure to allow the existing transmission network to accept the anticipated generation capacity of the Central-West Orana REZ, and to maintain acceptable transmission network performance.

The Wollar Substation Upgrade project (the proposed action) is the subject of this referral. The Shared Network Infrastructure project would be subject to a separate referral in the future. The proposed action would involve:

-Changes to the existing Wollar 500 kV substation, including:

*Extension of the existing substation hardstand area to the south west, including earthworks and drainage works

*Expansion of switchyard to include transmission line towers and new electrical equipment such as surge arrestors, coupling capacitors, line traps, circuit breaker and earth switches

*Minor electrical works within parts of the existing substation

-New cut-in of the existing 500 kV transmission line 5A3, including:

*Removal of an existing transmission line tower and associated landing span to the south of the tower

*Construction of a new 5A3 cut-in transmission line tower, including earthworks and footing construction

*Electrical works to connect the transmission line from the north via the new 5A3 cut-in transmission line tower to the existing Wollar substation infrastructure

*Electrical works to connect the transmission line from the south via the new 5A3 cut-in transmission line tower to the new switch bays

*Structural strengthening work on towers as a result of the new cut-in designs

-Modification of the existing cut-in of 500 kV transmission line 5A4 and 5A5 including:

*Modification of the existing 5A4 cut in transmission line tower

*Construction of a new 5A5 cut-in transmission line tower, including earthworks and footing construction

*Electrical works to connect the transmission line from the south via the new 5A5 cut-in transmission line tower to the new switch bays

*Structural strengthening work on towers as a result of the new cut-in designs.

-Ancillary works:

*Transmission line towers along the existing 500 kV transmission lines 5A3, 5A4 and 5A5 may be upgraded to meet transmission line tension requirements if required. The upgrades would include minor works at existing transmission line towers to the north east and to the south west of the Wollar substation site

*Relocation of the proposed access track to Wollar Solar Farm. The new access track would run on Barigan Road, before being diverted around the north-western side of the substation.

For the purposes of this referral, the term “survey area” includes the existing Wollar substation, adjacent lands and the area within which field surveys were conducted. The term “Project footprint” includes the area where the key components of the construction and operation of the proposed action would occur, including vegetation clearing (i.e. the development footprint). A conservative approach was adopted for the field surveys which were conducted on a larger area than the Project footprint. The actual area of clearing is likely to be less as the works would not require entire vegetation removal, particularly in areas where installation of transmission line is required; however, a worst-case scenario considering full clearing has been assessed. Construction activities would be undertaken within the Project footprint (refer to ‘Att 1-Survey Area and Project footprint’, page 1). Construction works would typically include the following activities (but not be limited to):

-Early works which may include:

*Establishment of construction ancillary facilities

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*Establishment of transmission line easements
*Vegetation clearance, within the Project footprint
-Civil works associated with the proposed transmission line structures which may include:
*Providing safe access for construction machinery and materials to the proposed transmission line structure sites, which may require earthworks
*Earthworks and foundation preparation at each transmission line structure, including boring and/or excavation, steel fabrication works and concrete pours
*Erection of the new transmission line structures
*Stringing of the conductors and overhead earth wires and optical ground wires – Installation of earthing conductors
-Civil and building works associated with the Wollar substation upgrade which may include:
*Bulk earthworks and slab construction
*Installation of new substation equipment.

As part of the Project the proposed access road to Wollar Solar Farm would be relocated to facilitate the upgrade. The new access road would run on Barigan Road, before being diverted around the north-western side of the substation.

A desktop and a likelihood of occurrence assessment was undertaken following field surveys to determine what Threatened Ecological Communities (TECs) or threatened species listed under the EPBC Act have a moderate to high likelihood of occurring in the survey area and may be directly or indirectly impacted by the proposed action.

The presence of TECs or threatened communities was then verified through field surveys. An EPBC assessment of significance was then conducted to determine potential impact on MNES (refer to 'Att 3-EPBC AoS', pages 1, 5 and 8). The proposed action would result in vegetation clearance, which would impact one disturbed EPBC TEC with presence detected at field surveys: White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland Listed as a Critically Endangered Ecological Community (CEEC) by the EPBC Act.

Due to this vegetation clearance, the proposed action has the potential to impact on marginal habitat for two EPBC threatened species assumed to have a low likelihood of presence within the survey area:
-Large-eared Pied Bat (Chalinolobus dwyeri) listed by the EPBC Act as Vulnerable
-Regent Honeyeater (Anthochaera phrygia) listed by the EPBC Act as Critically Endangered.

These were selected for further impact analysis based on findings of key habitat trees (Regent Honeyeater) and foraging areas present within the survey area and species sightings noted nearby from other project surveys (Large-eared Pied Bat).

1.3 What is the extent and location of your proposed action?

See Appendix B

1.5 Provide a brief physical description of the property on which the proposed action will take place and the location of the proposed action (e.g. proximity to major towns, or for off-shore actions, shortest distance to mainland)

The Project footprint encompasses 17.63 hectares and is located at Wollar substation in the Mid-Western Regional Local Government Area approximately seven kilometres south of the township of Wollar, off Barigan Road.

The Project footprint includes:
•Land owned by Electricity Transmission Ministerial Holding Corporation and leased to TransGrid (Lot 1, DP1090027)
•Adjacent land (Lot 11 in DP1090027).

The Project footprint contains the existing Wollar substation and has been subject to extensive disturbance from recent and historical slashing and agricultural use. There are scattered mature trees within a predominantly grassy landscape. Two fenced dams exist to the north-east of the existing substation, inside the Project footprint. Wollar Creek is to the east of the existing substation (outside of the Project footprint) and is a north-south running 6th and 7th order stream according to the Strahler system (NSW Department of Industry 2018), and a tributary of the Goulburn River.

1.6 What is the size of the proposed action area development footprint (or work area) including disturbance footprint and avoidance footprint (if relevant)?

The proposed action would occur within a Project footprint of 17.63 ha. Design development is currently ongoing, and it is expected that the area of disturbance required for the proposed action would be significantly less than the full extent of the Project footprint. Where possible, the design would avoid and minimise impacts to areas of higher conservation significance and quality within the Project footprint.

Approximately 13.98 ha of the Project footprint comprises native vegetation in both poor and moderate condition, with the remaining 3.65 ha being made up of hardstand areas, an existing access track and the two dams.

For the purpose of this referral, a conservative approach has been taken and it has been assumed that the proposed action would result in disturbance of the full 13.98 ha of native vegetation within the Project footprint. Subject to finalisation of design work, the proposed action is unlikely to affect all of this area.

1.7 Proposed action location

Address - 516 Barigan Rd, Wollar, NSW, 2850, Australia

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1.8 Primary jurisdiction	New South Wales

1.9 Has the person proposing to take the action received any Australian Government grant funding to undertake this project?

☑ Yes ☐ No

1.9.1 Provide detail

The early phases of the proposed action have partly been funded by the Australian Renewable Energy Agency (ARENA) on behalf of the Australian Government as part of its Advancing Renewables Program.

1.10 Is the proposed action subject to local government planning approval?

☐ Yes ☑ No

1.11 Provide an estimated start and estimated end date for the proposed action	Start Date	01/12/2022
	End Date	30/06/2025

1.12 Provide details of the context, planning framework and state and/or local Government requirements

Strategic context

New transmission infrastructure supporting the development of the Central-West Orana REZ and enhancing connections to the existing electricity transmission network have been identified by the 2020 Integrated System Plan (ISP) (AEMO, 2020) as being critical in addressing cost, security and reliability issues within the network.

The ISP forecasts the transition of the National Energy Market (NEM) toward a mix of renewable, conventional and distributed generation. REZs will play an important role in supporting a competitive and low-cost electricity market, as well as being the most cost effective way to add capacity and balance variable resources across the whole NEM. The ISP identifies a transmission connection from the Central-West Orana REZ to the existing electricity transmission network as an 'Actionable Project' and critical to address electricity transmission network cost, security and reliability issues.

NSW frameworks and policies

The NSW Transmission Infrastructure Strategy (DPIE, 2018) presents the NSW Government's plan to unlock private sector investment in new interconnectors and REZs by prioritising the development of 'Energy Zones' to deliver affordable electricity into the future. The Central-West Orana region was identified as one of five regions being prioritised by the NSW Government for development as an Energy Zone; an area with high energy potential where planned transmission infrastructure upgrades are able to connect multiple projects at a lower cost.

The NSW Electricity Strategy (DPIE, 2019a) is the NSW Government's plan for a reliable, affordable and sustainable electricity future that supports a growing economy. The Central-West Orana REZ is proposed to be at least a 3,000 MW pilot REZ that would produce enough energy to power up to 1.4 million homes each year. The Strategy also highlights the need to coordinate the delivery of new generation projects with transmission network investment.

The NSW Electricity Infrastructure Roadmap (DPIE, 2020) outlines the plan to transition the electricity sector to a cheaper, cleaner and more reliable one. The Roadmap identifies the NSW Government's priority in delivering the Central-West Orana REZ.

The Electricity Infrastructure Investment Act 2020 gives effect to the NSW Electricity Infrastructure Roadmap (DPIE, 2020). The Act and the Roadmap together commit the NSW Government to declaring five REZs, including the Central West Orana REZ, and establishing the Electricity Infrastructure Investment Safeguard and Transmission Development Scheme.

NSW statutory planning framework

The proposed action is permissible without development consent under clause 41 of NSW State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP) being "development for the purpose of an electricity transmission or distribution network, carried out by, or on behalf of, an electricity supply authority or public authority without consent on any land". TransGrid is defined as an electricity supply authority under clause 40 of the Infrastructure SEPP being a transmission operator under the Electricity Supply Act 1995 (NSW).

The Environmental Planning and Assessment Amendment (Central-West Orana Renewable Energy Zone Transmission Order) 2020 declares the whole Central-West Orana REZ Transmission (both the Shared Network Infrastructure and Wollar Substation Upgrade components) to be State Significant Infrastructure and Critical State Significant Infrastructure and a consequential amendment to Schedule 5 of State Environmental Planning Policy (State and Regional Development) 2011. The Minister for Planning and Public Spaces is the approval authority for the proposed action under Part 5 Division 5.2 of the EP&A Act. An Environmental Impact Statement (EIS) for the proposed action would be prepared and publicly exhibited in accordance with the EP&A Act. An Environmental Scoping Report has been prepared to support a request for Secretary's Environmental Assessment Requirements (SEARs) for the EIS under the EP&A Act. The Environmental Scoping Report would be submitted at about the same time as the date of this referral.

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Commonwealth planning framework

TransGrid is not a Commonwealth agency and a preliminary assessment of the proposed action indicates there would not be a significant impact to Commonwealth land or MNES. This referral, made under the EPBC Act, is being submitted on a precautionary basis.

A bilateral agreement between the Commonwealth of Australia and the State of New South Wales relating to environmental assessment (the assessment bilateral agreement), allows the Commonwealth Minister for the Environment and Energy to rely on specified environmental impact assessment processes of the State of New South Wales in assessing actions under the EPBC Act. As such the following referral has been prepared in accordance with standard NSW environmental impact assessment processes.

1.13 Describe any public consultation that has been, is being or will be undertaken, including with Indigenous stakeholders

TransGrid has based its approach to engagement on a structured process to ensure consistent, targeted and meaningful engagement. Community and stakeholder engagement plans have been developed that focus on the engagement and communication approach to be undertaken on the Central-West Orana REZ Transmission. They provide the framework for community and stakeholder engagement for the Central-West Orana REZ Transmission and will be updated as required to align with the relevant phase of works. Community and stakeholder engagement has been carried out and will continue to be carried out for the proposed action in accordance with these community and stakeholder engagement plans.

TransGrid has identified relevant stakeholders across the Central-West Orana REZ Transmission. A wide-ranging engagement program has been developed to consider the range of stakeholders that may be potentially impacted by or interested in Central-West Orana REZ Transmission. The stakeholders below were identified specifically in relation to the proposed action (the Wollar Substation Upgrade project), which differ to those identified for the Shared Network Infrastructure project. The stakeholders consulted for the proposed action include:

- Key project partners:
  Energy Corporation of NSW (the Energy Corporation)
  Clean Energy Finance Corporation (CEFC)
  Australian Renewable Energy Agency (ARENA)
- Project approval authority:
  NSW Department of Planning, Industry and Environment – Planning and Assessment (DPIE – Planning and Assessment)
  Commonwealth Department of Agriculture, Water and the Environment (if deemed to be a controlled action)
- Industry bodies:
  Energy Networks Australia
  Australian Energy Council
  Clean Energy Council
  Australian Industry Group
- Local councils:
  Mid-Western Regional Council
  Mayor and Councillors
- Directly impacted landowners and businesses:
  Peabody
  Wollar Solar Farm
- Traditional Owners and other Aboriginal groups:
  Mudgee Local Aboriginal Land Council
- Generators:
  Existing and proposed wind and solar farm and energy storage project developers in proximity to the proposed action
- Representative and advocacy groups:
  Energy Consumers Australia
  Public Interest Advocacy Centre
  NSW Farmers
  Energy Users Association of Australia
- Energy regulator / operator:
  Australian Energy Market Operator, Australian Energy Regulator, Australian Energy Market Commission, Energy Security Board.

Consultation with the wider community has also commenced and will continue during the development of the proposed action.

Engagement activities that have been undertaken to date for the proposed action include:

- Letters
- Briefings
- Direct communication
- Central-West Orana REZ Transmission webpage
- Fact sheets

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- 1800 toll free number and community email address.

TransGrid will continue to engage with the key stakeholders identified, including adjacent landowner Peabody, on specific issues and opportunities relevant to the proposed action to inform the preparation of the EIS, as well as general engagement regarding the proposed action more broadly. The next stage of community and stakeholder engagement will build on relationships established through early engagement activities and will complement formal consultation required under planning regulations, including activities that may stipulated in the SEARs.

Communications and engagement for the Central-West Orana REZ Transmission will continue to be coordinated with communications that DPIE are leading for the Central-West Orana REZ.

1.14 Describe any environmental impact assessments that have been or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project

The proposed action is declared State Significant Infrastructure and Critical State Significant Infrastructure under Part 5 Division 5.2 of the EP&A Act. An Environmental Scoping Report has been prepared and submitted to support a request for SEARs for the EIS under the EP&A Act. The Environmental Scoping Report has been recently submitted in order to streamline any concurrent Commonwealth and State planning processes that may be required if the proposed action is deemed a controlled action. The EIS would be displayed for community and stakeholder comment, and all submissions addressed in a submissions report. DPIE would then assess the proposed action and the Minister for Planning and Public Spaces would determine the application for the proposed action.

This document comprises the referral under the EPBC Act for the proposed action's potential impact on MNES.

1.15 Is this action part of a staged development (or a component of a larger project)?

☑ Yes ☐ No

1.15.1 Provide information about the larger action and details of any interdependency between the stages/components and the larger action

The proposed action (as described in the referral) refers to the Wollar Substation Upgrade project which forms part of the Central-West Orana REZ Transmission. The Central-West Orana REZ Transmission refers to the entirety of the proposed works required to provide a transmission connection between the Central-West Orana REZ and the existing electricity transmission network, and comprising two principal components – the proposed action, and the Shared Network Infrastructure Transmission project.

The other component of the Central-West Orana REZ Transmission, the Shared Network Infrastructure Transmission project, would involve new 500 kV and 330 kV transmission lines and substations to facilitate development of the REZ and connect the REZ to the existing 500kV and 330 kV transmission network. The Shared Network Infrastructure project is currently under development and further details would be included in a separate Environmental Scoping Report and a separate EPBC referral.

The Shared Network Infrastructure Transmission project would be assessed as CSSI under the EP&A Act.

The proposed action refers to the Wollar Substation Upgrade project. The potential impacts described are specific to the proposed action.

1.16 Is the proposed action related to other actions or proposals in the region?

☑ Yes ☐ No

1.16.1 Identify the nature/scope and location of the related action (Including under the relevant legislation)

Yes, the Shared Network Infrastructure Transmission, which forms part of the Central-West Orana REZ Transmission, which would be the subject of a separate referral.

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Section 2

Matters of national environmental significance

2.1 Is the proposed action likely to have any direct or indirect impact on the values of any World Heritage properties?

☐ Yes ☑ No

2.2 Is the proposed action likely to have any direct or indirect impact on the values of any National Heritage places?

☐ Yes ☑ No

2.3 Is the proposed action likely to have any direct or indirect impact on the ecological character of a Ramsar wetland?

☐ Yes ☑ No

2.4 Is the proposed action likely to have any direct or indirect impact on the members of any listed species or any threatened ecological community, or their habitat?

☑ Yes ☐ No

Species or threatened ecological community

White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grasslands

Impact

The White Box - Yellow Box - Blakely's Red Gum Grassy Woodland TEC (Box-Gum Woodland) is present within the Project footprint predominantly in a derived grassland form; being open grassland with two scattered canopy trees, and with no midstorey present. The condition of this vegetation has been substantially disturbed by historical clearing and mechanical cultivation. Detailed survey of the derived grassland understorey indicates areas of this patch only just meet the minimum composition condition requirements of the TEC (12 perennial native species) and a corresponding Vegetation Integrity (VI) score of 32.6 (out of 100). The two mature trees provide no overstorey connectivity with other woodland patches. The TEC in the locality contains intact patches (several strata present) which are separated by open grasslands that have been historically and/or are regularly cleared for agricultural purposes.

The proposed action would require the removal of up to approximately 7.77 ha of this disturbed grassland and scattered trees within the Project footprint. This is a worst-case scenario and all vegetation within the Project footprint would not require removal. Another approximately 6.21 ha of grassland occurs within the Project footprint that does not align with the TEC. These areas are dominated by exotic species, have a VI score of 9.2 and less than 50% native vegetation cover and have been excluded from this assessment. Refer to page 1 of 'Att 3-EPBC AoS' for further information.

Species or threatened ecological community

Chalinolobus dwyeri (Large-eared Pied Bat)

Impact

There are multiple Large-eared Pied Bat records within the region, towards Munghorn Gap Nature Reserve and Goulburn River National Park. There are no BioNet records within 10 km of the Project footprint, however surveys conducted by NGH (2019) for the Wollar Solar Farm confirmed the presence of this species in the surrounding ridgelines. The Project footprint itself does not contain breeding habitat. Surveys conducted by Niche combined with an analysis of aerial imagery and the NGH (2019) report confirm that there are ridgelines approximately 1.7 km to the east of the Project footprint that contain caves and crevices which are likely to provide suitable roosting habitat for the Large-eared Pied Bat. The wing morphology of this species suggests that it is relatively slow flying and typically forages below the canopy (DERM 2011). As such, the Large-eared Pied Bat is unlikely to rely on the vegetation within the Project footprint, as the two trees on site are isolated with no connectivity to the ridgelines noted above.

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Although the proposed action would require up to approximately 7.77 ha of disturbed grassland and scattered trees within the Project footprint to be cleared, it is unlikely that the proposed action would have a significant impact on the Large-eared Pied Bat. This is because the majority of the Project footprint is comprised of grassland, with two isolated mature trees, and the Project footprint provides low quality foraging opportunities with poor connectivity across the landscape. It is unlikely that the Large-eared Pied Bat relies on habitat within the Project footprint and is more likely to utilise forested habitats in the locality to forage.

Refer to page 8 of 'Att 3-EPBC AoS' for further information.

Species or threatened ecological community

Anthochaera phrygia (Regent Honeyeater)

Impact

There are two Regent Honeyeater records in the locality (10 km). Outside of the locality, there is an abundance of records to the west within Munghorn Gap Nature Reserve and to the north, within Goulburn River National Park. The nearest area identified as critical to the survival of the species is the Mudgee-Wollar Key Biodiversity Area (KBA) located outside of the Project footprint around two kilometres to the north (Commonwealth of Australia 2016). There are no records of the species within the Project footprint.

According to BioNet the Regent Honeyeater is associated with PCT 1303. Given the lack of trees throughout most of the Project footprint with only two mature Grey Box (Eucalyptus moluccana) trees occurring, there is limited potential habitat for the species within the Project footprint. Grey Box are not listed as a key tree species for the Regent Honeyeater, although they may provide foraging resources on occasion. Nevertheless, the removal of the two remnant Grey Box trees would impact 0.04 ha of potential Regent Honeyeater habitat.

The Recovery Plan states that critical habitat is 'any breeding or foraging areas where the species is likely to occur' and 'any newly discovered breeding or foraging locations'. The Plan also states that other trees, including large individual trees, may be important foraging habitat for the species. Given the proximity of the Project footprint to known foraging and breeding locations (e.g. Mudgee-Wollar KBA) there is the potential for the Regent Honeyeater to utilise the remnant trees within the Project footprint on occasion for foraging and dispersal. However given the degree of fragmentation surrounding the Project footprint, the removal of two isolated trees is unlikely to have a significant impact on this species.

Refer to page 6 of 'Att 3-EPBC AoS' for further information.

2.4.2 Do you consider this impact to be significant?

☐ Yes ☑ No

2.5 Is the proposed action likely to have any direct or indirect impact on the members of any listed migratory species or their habitat?

☐ Yes ☑ No

2.6 Is the proposed action to be undertaken in a marine environment (outside Commonwealth marine areas)?

☐ Yes ☑ No

2.7 Is the proposed action likely to be taken on or near Commonwealth land?

☐ Yes ☑ No

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2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park?

☐ Yes ☑ No

2.9 Is the proposed action likely to have any direct or indirect impact on a water resource from coal seam gas or large coal mining development?

☐ Yes ☑ No

2.10 Is the proposed action a nuclear action?

☐ Yes ☑ No

2.11 Is the proposed action to be taken by a Commonwealth agency?

☐ Yes ☑ No

2.12 Is the proposed action to be undertaken in a Commonwealth Heritage place overseas?

☐ Yes ☑ No

2.13 Is the proposed action likely to have any direct or indirect impact on any part of the environment in the Commonwealth marine area?

☐ Yes ☑ No

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Section 3

Description of the project area

3.1 Describe the flora and fauna relevant to the project area

Vegetation within the survey area was determined using vegetation mapping from the Upper Hunter (DPIE, 2019b) and verified using a combination of rapid data collection points, BAM plots and walking meanders.

Native vegetation within the survey area was verified through field surveys as containing one disturbed and derived grassland form of Plant Community Type PCT 1303 White Box - Grey Gum - Kurrajong grassy woodland on slopes of the northern Capertee Valley, Sydney Basin Bioregion and PCT 281 Rough-Barked Apple - Red Gum - Yellow Box woodland on alluvial clay to loam soils on valley flats in the northern NSW South Western Slopes Bioregion and Brigalow Belt South Bioregion (DPIE, 2019b).

Based on assessing aerial imagery, rapid data collection, BAM plots and walking meanders, the vegetation in the Project footprint ranges from poor (approximately 6.21 ha) to moderate condition (approximately 7.77 ha). These vegetation zones are shown in 'Att 4-Vegetation conditions', page 1.

Based on the desktop analysis and field verification there is one TEC mapped in the Project footprint:

- White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland – Listed as Critically Endangered under the EPBC Act.

The area of PCT 1303 in poor condition does not contain 50% native species (and has a VI score of 9.2), therefore it does not conform to the condition threshold criteria provided in the Commonwealth conservation advice for Box Gum Woodland. However, the proposed action would have a residual impact on approximately 7.77 ha of Box-Gum Woodland in moderate condition. The approximately 7.77 ha of moderate condition vegetation to be removed is an overestimation of vegetation impacts and encompasses both direct and indirect impacts, as full clearing would not be required within the Project footprint.

Database searches within the locality (a 10 km radius around the survey area) were conducted prior to the field survey in February 2021 to identify threatened species with known occurrences or with the potential to occur in the survey area. From this assessment, species with a moderate to high chance of occurring in the survey area are listed below:

Flora

There are two threatened flora species listed under the EPBC Act that have a moderate likelihood of occurring in the survey area and none with a high likelihood of occurring in the survey area. These are:

- Swainsona recta (Small Purple-pea)
- Thesium australe (Austral Toadflax).

Targeted flora surveys were conducted within the survey area and did not record these species. Furthermore, these species are not associated with PCT 1303 and were assessed as unlikely to occur due to the degraded nature of the survey area.

Fauna

There are two threatened fauna species listed under the EPBC Act that have a moderate to high likelihood of occurring in the survey area. These are:

- Chalinolobus dwyeri (Large-eared Pied Bat)
- Anthochaera phrygia (Regent Honeyeater).

There are records from nearby sandstone ridgelines (1.7 km to the east of the Project footprint) for the Large-eared Pied Bat (NGH, 2019) and these ridgelines contain suitable breeding habitat. The survey area does not contain breeding habitat. As a species that is considered to forage predominantly below the canopy (DERM 2011) the Large-eared Pied Bat is unlikely to rely on vegetation within the Project footprint, as the two trees on site (two matured Box Gum trees) are isolated with no connectivity.

The Project footprint is outside regular and subsidiary areas used by Regent Honeyeaters for foraging and breeding. The two mature trees within the Project footprint are unlikely to qualify as breeding habitat for the Regent Honeyeater as they are isolated from other areas of high quality habitat and other common species were observed utilising the trees during surveys (Niche, 2021b). These two trees comprise 0.04 ha of potential foraging habitat. However, given that Grey Box is not listed as a key tree species (DERM 2011) and as the two trees present occur within a highly fragmented landscape, they are unlikely to provide optimal habitat for the Regent Honeyeater.

3.2 Describe the hydrology relevant to the project area (including water flows)

The survey area is located within proximity to Wollar Creek, which runs to the north and east of the survey area. The creek is approximately 330 metres (m) from the existing substation at the closest point. There are no other major waterways, waterbodies or watercourses within proximity to the survey area.

According to the NSW Department of Primary Industries database of groundwater, there are no groundwater bores located in the survey area or within proximity.

The survey area is not within land mapped as a flood planning area or as having groundwater vulnerability under the Mid-Western Regional LEP 2012.

3.3 Describe the soil and vegetation characteristics relevant to the project area

The vegetation within the survey area is discussed in Section 3.1.

The survey area occurs within the Kerrabee IBRA Sub-region which is within the Sydney Basin IBRA Bioregion. General soil characteristics for the Kerrabee IBRA Sub-region are as follows:

- Sydney Basin – Kerrabee (IBRA subregion) - Shallow sandy profiles, bare rock outcrop on plateau. Sandy texture contrast soils on slopes, harsh texture contrast soils on coal measures, deep sands and loams in alluvium. Basalts have red brown structured loams and clay loams, often buried by slope debris where the volcanic necks form depressions.

The survey area is mapped as occurring within the Upper Goulburn Valleys and Escarpment Landscape (DECCW 2002). This landscape is described as 'steep hills and sandstone escarpments with cliffs, rock outcrop and long debris slopes on Permian and Triassic quartz sandstone, lithic sandstone, conglomerate and shale, general elevation 250 to 700m, local relief to 250m. Stony coarse textured rubbly earths and harsh texture-contrast soils. Woodland of; grey box (Eucalyptus moluccana), forest red gum (Eucalyptus tereticornis), white box (Eucalyptus albens), yellow box (Eucalyptus melliodora) and grasses'.

3.4 Describe any outstanding natural features and/or any other important or unique values relevant to the project area

The PMST search returned no critical habitat within the locality of the survey area. No listed critical habitats are anticipated to be impacted by the proposed action. There are no protected areas within the survey area.

3.5 Describe the status of native vegetation relevant to the project area

The majority of the survey area is cleared or has been historically cleared for agriculture or other uses at some time and now supports poor to moderate condition grassland with some scattered remnant trees. During the field surveys 35 exotic species including five high threat weed (HTW) species were recorded. PCT 1303_Moderate has a VI score of 37.6, meanwhile PCT1303_Poor has a VI score of 9.2.

The key diagnostic species used to identify this PCT in the survey area were the presence of two isolated Eucalyptus moluccana (Grey Box) within the Project footprint as well as Eucalyptus albens (White Box) and Brachychiton populneus subsp. populneus (Kurrajong) observed in remnant stands outside the survey area. The midstorey had been almost entirely removed, only containing several remnant Acacia implexa and Acacia decora. The ground cover was dominated by the grass and grass-like species including Sporobolus creber (Slender rat's tail grass), Bothriochloa macra (Red grass), Eragrostis leptostachya (Paddock lovegrass), Aristida ramosa (Purple wiregrass), Austrostipa verticillata (Slender bamboo grass), Gahnia aspera (Rough Saw-sedge), Lomandra filiformis subsp. filiformis and Austrostipa scabra (Speargrass). Forbs were less common and consisted of Oxalis perennans, Rumex brownii (Swamp dock), Euphorbia drummondii (Caustic weed) and Dichondra repens (Kidney weed).

The vegetation within the survey area was difficult to align to a PCT due to its widespread disturbance and modified nature. Vegetation within the survey area did not perfectly match species listed within a PCT description (DPIE 2020). However, PCT 1303 represented the best fit given the presence of key flora species such as Grey Box and White Box and understorey species listed above, consistency with the geological description, occurring near the transition between the sandstone colluvium of the escarpment, consisting of metamorphic basement rocks, and its position in the landscape at the lower elevations of the valley floor. In addition, earlier survey conducted by NGH for the Wollar Solar Farm mapped the same community within the survey area as well as larger areas to the south-east (NGH, 2019).

Other PCTs considered included PCT 483, PCT 516, PCT 847 and PCT 1608, however, based on the above, PCT 1303 was chosen as the best fit PCT for the vegetation within the survey area.

Based on rapid data collection, six BAM plots and walking meanders, there is approximately 7.77 ha of native vegetation within the survey area that aligns to the TEC White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland listed as a CEEC under the EPBC Act. A smaller portion (approximately 6.21 ha) of the survey area contains exotic dominated poor condition grasslands, therefore it does not conform to the condition threshold criteria provided in the Commonwealth conservation advice for Box Gum Woodland.

3.6 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area

The survey area is located in the 'Barigan Creek' soil landscape. The topography is characterised by lower slopes of sandstone escarpments, with low undulating rises and creek flats. Elevations vary from 360 m to 470 m above sea level (Murphy and Lawrie, 1998). The survey area is not within a marine area.

3.7 Describe the current condition of the environment relevant to the project area

Land within the survey area is used for the purposes of electricity transmission. The substation was constructed around 2008 and prior to this, aerial imagery (Google Earth) shows that the site and surrounding land was used for agricultural purposes, including cultivation.

Land within and around the survey area is largely cleared of woody vegetation as a consequence of historical and ongoing agricultural land uses. According to the NSW Land and Soil Capability (LSC) assessment scheme (2012), the survey area is categorised as LSC class 5 (severe limitations) which is usually associated with land use restrictions and potential for soil erosion to be severe without adequate control measures. A field survey of the survey area on 14 May 2021 identified the area as being in low ecological condition due to cattle grazing and the dominance of weed species. Prominent ridgelines around one kilometre to the east and around 3.5 kilometres to the west of the existing substation are the closest areas of undisturbed

native vegetation.

3.8 Describe any Commonwealth Heritage places or other places recognised as having heritage values relevant to the project

There are no Commonwealth Heritage Places relevant to the proposed action.

3.9 Describe any Indigenous heritage values relevant to the project area

The survey area is located on land within the responsibility of the Mudgee Local Aboriginal Land Council. There is one active native title claim (NC2018/002 Warrabinga-Wiradjuri #7) that covers more than 14,000 km2 across the Central-West Orana region, including the survey area.

A search of Aboriginal objects, sites and places registered on AHIMS identified two sites within the survey area and two sites within proximity of the survey area. These sites are stone artefacts and are located along Wollar Creek. There were no AHIMS sites identified within the Project footprint.

The survey area is highly disturbed as a result of historical and ongoing agricultural activities, land clearing and the development of the existing Wollar substation and associated transmission lines. The disturbed nature of the survey area means that it is unlikely there would be any Aboriginal cultural heritage sites remaining in the area.

The Aboriginal heritage predictive model developed for the Central-West Orana REZ Transmission considered the findings of past assessments undertaken within the region and predictions of three occupation / site distribution models. Taking these past assessments findings into account, the model identifies watercourses as being the landscape feature with the greatest potential for the presence of Aboriginal cultural heritage sites. Areas within 200 metres of watercourses are likely to contain evidence of past habitation, with the highest risk areas to contain Aboriginal archaeological sites being named watercourses (defined as primary resource zones). The nearest watercourse (which is a named watercourse) to the survey area, Wollar Creek, is 330 m to the east. Consistent with the predictive model, registered Aboriginal cultural heritage sites have been identified in association with Wollar Creek.

3.10 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the project area

The existing Wollar substation is situated on land owned by Electricity Transmission Ministerial Holding Corporation and leased to TransGrid, however adjacent land within the survey area is privately owned.

3.11 Describe any existing or any proposed uses relevant to the project area

The proposed action would be located within the Mid-Western Regional LGA, approximately seven kilometres south of Wollar. The survey area, including the Wollar substation site, and the land around it are all zoned RU1 Primary Production under the Mid-Western Regional LEP 2012. Properties in this zone are relatively large rural lots. The existing Wollar substation is situated on land owned by Electricity Transmission Ministerial Holding Corporation and leased to TransGrid, however adjacent land within the survey area is privately owned. Land surrounding the Project footprint is largely cleared and predominantly used for agricultural purposes, including cattle grazing and horticultural land. Most properties are characterised by small dams and water storage areas, within the Wollar Creek catchment (including the sub catchments of Spring Flat Creek and Barigan Creek).

There are existing transmission lines on surrounding land that connect into the substation. The proposed Wollar Solar Farm will be located to the west and south of the substation.

The existing 500 kV transmission lines 5A3, 5A4 and 5A5 aligned along the south-eastern boundary of the Wollar substation site are a prominent existing infrastructure development in the landscape. The 330 kV transmission line 79 connects from the Wollar substation to the north-west towards Ulan. These transmission lines are within formal easements.

The approved Wollar Solar Farm is proposed to be located to the west and south of the existing Wollar substation. The development site boundary for Wollar Solar Farm includes the existing Wollar substation site, however infrastructure associated with the solar farm will be located approximately one kilometre to the west of the substation site (NGH, 2019).

The proposed Wollar Solar Farm site is traversed by an existing TransGrid operated 330 kV transmission line that currently connects into the Wollar substation. This transmission line would be diverted in order to connect the proposed solar farm into the existing transmission network (NGH, 2019).

No dwellings are located within the survey area, with the closest dwellings approximately 650 m from the existing substation to the north and to the east.

On a broader level, the Central-West Orana region is one of five regions prioritised by the NSW Government for development as a REZ; an area with high energy potential where planned transmission infrastructure upgrades are able to connect multiple renewable energy generation and storage projects efficiently. The Central-West Orana REZ Transmission, of which the proposed action is a part, would facilitate the capacity for generation such as wind and solar as well as energy storage projects to connect into NSW's transmission network.

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 4

Measures to avoid or reduce impacts

4.1 Describe the measures you will undertake to avoid or reduce impact from your proposed action

The proposed action would occur within the Project footprint of 17.63 ha. Design development is currently ongoing, and it is expected that the area of disturbance required for the proposed action would be significantly less than the full extent of the Project footprint. Where possible, the design would avoid and minimise impacts to areas of higher conservation significance and quality within the Project footprint.

Approximately 13.98 ha of the Project footprint comprises native vegetation in both poor and moderate condition, with the remaining 3.65 ha being made up of hardstand areas, an existing access track and the two dams.

For the purpose of this referral, a conservative approach has been taken and it has been assumed that the proposed action would result in disturbance of the full 13.98 ha of native vegetation within the Project footprint. Subject to finalisation of design work, the proposed action is unlikely to affect all of this area.

TransGrid has aimed to avoid and minimise environmental impacts from the proposed action during the design process. The proposed action is largely confined to the existing substation site which has been cleared and maintained. Preliminary ecology assessments undertaken for the proposed action have informed the following design measures:

- Areas of TEC would be avoided where possible
- Areas of grassland community in poor condition and dominated by exotic species would be prioritised for disturbance as part of the Project, where possible (refer to 'Att 4-Vegetation conditions'), page 1
- Hollow-bearing trees have been identified and would be avoided where possible
- Vegetation clearing would be minimised as far as practical
- Indirect impacts to dams and waterways would be managed through appropriate mitigation measures.

Mitigation measures would be reflected in a Construction Environmental Management Plan (CEMP) and associated sub-plans to manage identified biodiversity, heritage and other potential environmental impacts associated with the construction phase of the proposed action.

The CEMP would include measures such as delineation of the Project footprint to ensure there are no ecological impacts outside of the Project footprint boundary with appropriate fencing, staff training, erosion and sediment controls, weed control measures, and management and removal of waste from the site. Where possible, design development would aim to avoid or minimise impacts to the small patch of Kangaroo Grass (Themeda triandra) occurring within PCT 1303 in moderate condition within the Project footprint. The CEMP would be developed generally in accordance with the Guideline for the Preparation of Environmental Management Plans (DIPNR, 2004) and would be consistent with AS/NZSISO 14001.

4.2 For matters protected by the EPBC Act that may be affected by the proposed action, describe the proposed environmental outcomes to be achieved

The survey area supports a relatively degraded TEC, which is unlikely to provide important habitat for threatened flora or fauna, migratory species or any other MNES. The loss of this area of Box-Gum Woodland is not likely to cause any significant impacts to this community, given the degraded state of the survey area, and the limited habitat it provides, however the CEMP and associated sub-plans would ensure that:

- Clearing limits would not exceed approved limits
- An exclusion zone would be established around the Project footprint to ensure clearing does not occur outside those boundaries
- Temporarily disturbed areas would be rehabilitated
- No new weeds, pathogens or pests are introduced or show an increase in abundance as a result of the proposed action and associated activities.

The following environmental outcomes, relevant to MNES, would be achieved as a result of the proposed action:

- No impacts to the World Heritage values of a declared World Heritage property
- No impacts to the National Heritage values of a National Heritage Place
- No impact to the ecological character of a declared Ramsar wetland
- No impacts to listed migratory species
- No impacts to the environment in a Commonwealth marine area
- No impacts to Commonwealth land
- No impacts to the Great Barrier Reef Marine Park
- The proposed action does not comprise a nuclear action
- No impacts to a water resource, in relation to coal seam gas development and large coal mining development.

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 5

Conclusion on the likelihood of significant impacts

5.1 You indicated the below ticked items to be of significant impact and therefore you consider the action to be a controlled action

- ☐ World Heritage properties
- ☐ National Heritage places
- ☐ Wetlands of international importance (declared Ramsar wetlands)
- ☐ Listed threatened species or any threatened ecological community
- ☐ Listed migratory species
- ☐ Marine environment outside Commonwealth marine areas
- ☐ Protection of the environment from actions involving Commonwealth land
- ☐ Great Barrier Reef Marine Park
- ☐ A water resource, in relation to coal seam gas development and large coal mining development
- ☐ Protection of the environment from nuclear actions
- ☐ Protection of the environment from Commonwealth actions
- ☐ Commonwealth Heritage places overseas
- ☐ Commonwealth marine areas

5.2 If no significant matters are identified, provide the key reasons why you think the proposed action is not likely to have a significant impact on a matter protected under the EPBC Act and therefore not a controlled action

The proposed action has the potential to affect ecological values, principally through vegetation clearing associated with upgrades to the Wollar substation and new and modified transmission line cut-ins. Clearing of vegetation may be required for the extension of the substation hardstand area, footings for new transmission line towers, and for relocating the proposed access track to Wollar Solar Farm. Ongoing design development for the proposed action would aim to avoid and minimise impacts on remnant native vegetation.

The removal of approximately 7.77 ha of Box-Gum Woodland, which primarily occurs as a derived native grassland in moderate condition, is unlikely to result in a significant impact on Box-Gum Woodland CEEC. While it has been assumed that all vegetation within the Project footprint would be removed, in reality only the removal of a proportion of this vegetation would be required for the extension of the existing substation hardstand area to the south-west and construction of two new transmission line towers. Other impacts are likely to be temporary in nature, including works associated with transmission line tower modifications and access tracks. The Project footprint already contains an existing switchyard, access track and transmission line towers. The proposed action would include extension of the switchyard and clearing of small areas of grassland for tower footings east of the existing switchyard. All of the Box-Gum Woodland within the Project footprint is subject to weed invasion, livestock grazing and clearing which has degraded the condition of this community. The Box-Gum Woodland within the Project footprint is already fragmented as a result of previous land-use activities. While the proposed action would increase the footprint of the existing substation and reduce the area of Box-Gum Woodland present, this CEEC would not be further fragmented by the proposed action. If required, biodiversity offsets would be secured for the proposed action.

Considering the limited nature of impact to Regent Honeyeater habitat within the Project footprint, it is unlikely that the proposed action would place the local occurrence of the population at risk of extinction. The trees to be removed are isolated and occur within a highly fragmented landscape which is unlikely to provide optimal habitat for the Regent Honeyeater. Grey Box has not been identified as a key tree species for the Regent Honeyeater. The proposed action would not fragment the species into one or more populations as it is a highly mobile landscape scale species. There are large areas of contiguous vegetation in the region which provide both breeding and foraging habitat. As such, it is concluded that the proposed action would not result in a significant impact to Regent Honeyeater.

The Project footprint does not contain roosting or breeding habitat. There is suitable roosting habitat for the Large-eared Pied Bat within the locality, present as caves and cliffs in the sandstone ridgelines however the closest ridgeline is approximately 1.7 kilometre to the east of the Project footprint. The Project footprint contains two mature trees which are isolated and as this species prefers to forage beneath the canopy of contiguous habitat, the Project footprint is unlikely to provide suitable foraging habitat. The proposed action is unlikely to have a significant impact on this species, as it is unlikely to lead to a decrease in the size of an important population, fragment an existing population, affect critical habitat, disrupt the breeding cycle of an important population, or interfere substantially with the recovery of the species. The Large-eared Pied Bat is a highly mobile species which is unlikely to rely on habitat within the Project footprint.

Based on the results of the biodiversity assessments completed to date, the proposed action is unlikely to further impact abiotic factors necessary for the survival of the community, species composition of an occurrence of the ecological community or the decline in the quality or integrity of an occurrence of the ecological community.

Where potential impacts are expected, they would be offset in accordance with the NSW Biodiversity Assessment Method which would aim to improve and maintain larger more intact areas of the ecological communities.

As identified on pages 4, 8 and 10 of ‘Att 3-EPBC AoS’, the direct impacts associated with the referred action are unlikely to have a significant impact on the environment as defined in the Significant Impact Guidelines, Section 1.2 (Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies) (Australian Government Department of

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Sustainability, Environment, Water, Population and Communities, 2013).

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Section 6

Environmental record of the person proposing to take the action

6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Explain in further detail

TransGrid has a consistent record of proactively seeking environmental approvals where required and ensuring that any commitments or conditions placed on activities as a result of these approval processes are adhered to.

6.2 Provide details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against either (a) the person proposing to take the action or, (b) if a permit has been applied for in relation to the action – the person making the application

In 2001, TransGrid was subject to proceedings under NSW State Environmental laws for clearing vegetation in the vicinity of transmission lines which caused water pollution. TransGrid pleaded guilty to the charges and subsequently invested $5 million toward site rehabilitation. Since the 2001 incidents, TransGrid has not been subject to any proceedings for breaches of any Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources.

6.3 If it is a corporation undertaking the action will the action be taken in accordance with the corporation's environmental policy and framework?

☑ Yes ☐ No

6.3.1 If the person taking the action is a corporation, provide details of the corporation's environmental policy and planning framework

TransGrid's Environment Policy is available on its web site and has also been provided as 'Att 5-TGEnvironment Policy_Feb21'.

TransGrid is committed to conducting its activities and services in a manner that minimises pollution and complies with relevant environmental legislation, industry standards and codes of practice. TransGrid requires all employees and contractors to stop and consider the potential impact to the environment from its activities. TransGrid aims to enhance its systems and processes in a manner that promotes continuous improvement in environmental management and which would lead to the achievement of industry best practice.

In meeting these commitments, TransGrid:

- Maintains an Environmental Management System (EMS) that provides the framework for setting and reviewing its environmental objectives and targets, including the implementation, monitoring and review of these objectives and targets, as well as facilitating continuous improvement in environmental performance
- Continues to develop systems that recognise sensitive environmental and cultural sites on or near infrastructure, and provides processes to manage and its activities with the aim of preventing environment harm or adversely impacting the environment
- Integrates environmental management considerations into the planning, design, siting, construction, maintenance, operation, decommissioning and disposal of all TransGrid assets
- Provides environmental training, assessment and authorisation under TransGrid's Environmental Management System to employees and contractors to enable them to perform its duties in an environmentally sensitive manner
- Engages with the community, customers, employees, government and other stakeholders regarding potential environmental or cultural impacts associated with plans and activities
- Pursues opportunities to maximise resource efficiencies and reduce the generation of waste through avoidance, reduction, reuse and recycling programs
- Identifies, sets and monitors realistic environmental performance measures and communicates them to all employees and stakeholders.

TransGrid's Environmental Policy commits to protecting and enhancing the natural environmental and social values in all TransGrid's activities. TransGrid's planning framework allows for early identification of environment and social values and methods for avoiding, minimising and mitigating impacts caused as a result of its developments via preliminary detailed screening and risk assessments within the development envelope and finally subsequent footprint selection.

TransGrid's EMS is independently certified and covers all of its processes and activities that have the potential to impact on the environment. The EMS enables compliance with TransGrid's environment and heritage compliance obligations, providing the framework for driving environmental requirements throughout leadership, planning, support, operation, performance evaluation and continuous improvement actions. The proposed action, therefore, would be undertaken, monitored and measured in accordance with the TransGrid's EMS.

6.4 Has the person taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?

☑ Yes ☐ No

6.4.1 EPBC Act No and/or Name of Proposal

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

- TransGrid/Energy generation and supply (non-renewable)/ EnergyConnect NSW - Eastern Section Reference Number: 2020/8766
- TransGrid/Energy generation and supply (non-renewable)/ EnergyConnect (NSW – Western Section) Reference Number: 2020/8673
- TransGrid/Energy and Infrastructure Snowy 2.0 Transmission Connection Project Reference Number: 2018/380
- NSW Electricity Networks Operations Pty Ltd/Energy Generation and Supply (renewable)/South of Parkwood Drive, extending up to 900m to the south of Stockdill Drive/Australian Capital Territory/Construction of new substation and associated transmission line works, ACT. Reference No. 2016/7784
- TransGrid/Energy generation and supply (non-renewable)/Lismore to Dumaresq, near Bonshaw/NSW/330 kV Transmission Line, 205km in Length. Reference No. 2010/5326 Proposal withdrawn
- TransGrid/Transmission line between Parkes and Manildra Substations, NSW. Date Received: 17 February 2009 Reference Number: 2009/4741
- TransGrid/Energy generation and supply (non-renewable)/Block 1653, Williamsdale, Tuggeranong/ACT/New Electricity Substation and Access Road Date Received: 01 Dec 2008 Reference Number: 2008/4619
- TransGrid/Telecommunications/Singleton Military Area, 3.5 km east of Broke/NSW/Singleton Military Area Vegetation Maintenance, Liddel-Killingworth Transmission Line Easement Date Received: 18 Dec 2007 Reference Number: 2007/3929
- TransGrid/Energy generation and supply/Wollar to Wellington/NSW/construct 330kV transmission line & switching station Date Received: 06 Jul 2005 Reference Number: 2005/2202
- TransGrid/Energy generation and supply/Tuggerah Substation to Ourimbah State Forest/NSW/330kV Transmission Line Date Received: 11 Nov 2002 Reference Number: 2002/863
- TransGrid/Energy generation and supply/Warabrook to Kooragang Island/NSW/TransGrid 132kV Power Transmission Line Date Received: 03 Sep 2002 Reference Number: 2002/794
- TransGrid/Energy generation and supply/Eastern Creek/NSW/TransGrid Sydney West 330kV Substation Augmentation Date Received: 30 May 2002 Reference Number: 2002/677
- TransGrid/Energy generation and supply/Singleton Military Area/NSW/Vegetation Maintenance, Liddell-Killingworth 330 kV Power Line Easement, Singleton Date Received: 03 May 2002 Reference Number: 2002/649
- Country Energy/Energy generation and supply/Molong/NSW/66kV transmission line to link the Molong-Cumnock and the TransGrid Molong-Manildra 132kV transmission lines Date Received: 21 Mar 2002 Reference Number: 2002/616
- TransGrid/Energy and Infrastructure (incl. Pipelines)/Molong to Manildra/NSW/132kV transmission line Date Received: 12 Dec 2001 Reference Number: 2001/527
- TransGrid/Energy and Infrastructure (incl. Pipelines)/Buronga (NSW) to Monash (SA)/NSW/Electricity Transmission Line Date Received: 10 Aug 2001 Reference Number: 2001/380.

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 7

Information sources

Reference source

AECOM (2021). Wollar Substation Ecological Survey. Report prepared for TransGrid.

Reliability

The report was prepared by suitably qualified ecologists based on preliminary field surveys and reviews of relevant publicly available desktop sources. As such, a reasonably high level of reliability is assumed.

Uncertainties

Any uncertainties identified in the cited text should be considered in the context of the uncertainties of those database, desktop and preliminary field survey results presented and would be subject to completion of further detailed surveys.

Reference source

Niche Environment and Heritage (Niche) (2021a). EPBC Act Significant Impact Criteria Assessment for Box Gum Woodland, Regent Honeyeater and Large-eared Pied Bat. Report prepared for AECOM, 6 July 2021.

Reliability

The report was prepared by suitably qualified ecologists based on preliminary field surveys and reviews of relevant publicly available desktop sources. As such, a reasonably high level of reliability is assumed.

Uncertainties

Any uncertainties identified in the cited text should be considered in the context of the uncertainties of those database, desktop and preliminary field survey results presented and would be subject to completion of further detailed surveys.

Reference source

Niche Environment and Heritage (Niche) (2021b). Wollar Substation Ecological Assessment for Central West Orana REZ. Report prepared for AECOM, 27 May 2021.

Reliability

The report was prepared by suitably qualified ecologists based on field surveys and reviews of relevant publicly available desktop sources. As such, a reasonably high level of reliability is assumed.

Uncertainties

Any uncertainties identified in the cited text should be considered in the context of the uncertainties of those database, desktop and preliminary field survey results presented and would be subject to completion of further detailed surveys.

Reference source

NGH (2019). Biodiversity Development Assessment Report – Wollar Solar Farm. Report prepared for Wollar Solar.

Reliability

The report was prepared by suitably qualified ecologists based on field surveys and reviews of relevant publicly available desktop sources. As such, a reasonably high level of reliability is assumed.

Uncertainties

Any uncertainties identified in the cited text should be considered in the context of the uncertainties of those database, desktop and field survey results presented. The findings of this report have not been verified by the authors of this EPBC Referral.

Reference source

Commonwealth of Australia (2016). National Recovery Plan for the Regent Honeyeater (Anthochaera phrygia)

Reliability

This is a Commonwealth Government document prepared by or with input from specialist ecologists. As such, a reasonably high level of reliability is assumed.

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Uncertainties

This document was prepared at a point in time, and the status of and recovery actions for the Regent Honeyeater are likely to change over time.

Reference source

DECCW (2002). Descriptions for NSW (Mitchell) Landscapes Version 2.

Reliability

Version 2 maps were constructed from existing data and have a strong geologic, geomorphic and pedologic base. They do not include field validation/original mapping. Scale and reliability was constrained to 1:250,000 scale by the availability of suitable state-wide maps, although some source data (air photos/maps) were more detailed. A transect of map sheets was compared with other data during the mapping, it is believed reasonable product consistency has been attained. Details on the methodology, limitations and constraints in the development of the original dataset are contained in P.B.Mitchell (2002) NSW Ecosystems Study: Background and Methodology (Unpublished).

Uncertainties

The mapping has not been comprehensively groundtruthed.

Reference source

Department of Infrastructure, Planning and Natural Resources (DIPNR) (2004). Guideline for the Preparation of Environmental Management Plans.

Reliability

This guideline was developed in consultation with government agencies, contactors and industry groups. As such, a reasonably high level of reliability is assumed.

Uncertainties

This guideline may be subject to periodic updates over time.

Reference source

DERM (2011). National Recovery Plan for the Large-eared Pied Bat.

Reliability

This is a Commonwealth Government document prepared by or with input from specialist ecologists. As such, a reasonably high level of reliability is assumed.

Uncertainties

This document was prepared at a point in time, and the status of and recovery actions for the Large-eared Pied Bat may change over time.

Reference source

Department of the Environment (DoE) (2013). Actions on, or impacting upon Commonwealth land, and actions by Commonwealth agencies, Significant impact guidelines 1.2. Commonwealth of Australia.

Reliability

This is a Commonwealth Government guideline. As such, a reasonably high level of reliability is assumed.

Uncertainties

This guideline may be subject to periodic updates over time.

Reference source

DPIE (2019a). NSW Electricity Strategy

Reliability

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

This is a NSW Government plan informed by legislation and information from the Australian Energy Regulator and the Australian Energy Market Operator. As such, a reasonably high level of reliability is assumed.

Uncertainties

This document may be subject to periodic updates over time.

Reference source

DPIE (2019b). State Vegetation Type Map: Upper Hunter v1.0. VIS_ID 4894.

Reliability

This dataset was developed under the OEH State Vegetation Map project to provide government and community with regional scale information about native vegetation. It includes a range of reliability from unknown to full floristic validation. In this instance, this mapping has been used as an indication of plant community types ahead of field surveys.

Uncertainties

The mapping has not been comprehensively groundtruthed.

Reference source

DPIE (2021). BioNet Atlas. Data accessed March 2021.

Reliability

BioNet is made up of a number of data collections. It is somewhat reliable, and subject to limitations relating to the way the data has been collected. It has been used as an indication of likelihood of presence ahead of field surveys.

Uncertainties

The BioNet Atlas is not a comprehensive inventory of all species, nor of all locations of species in NSW. The data may contain errors and omissions and is subject to updates over time.

Reference source

Stol, J. and Prober, S.M. (2015). Jewels in the Landscape: Managing very high conservation value ground-layers in Box-Gum Grassy Woodlands. CSIRO Land and Water Flagship, Canberra.

Reliability

This document was prepared by researchers at the CSIRO and information contained in this publication comprises general statements based on scientific research. As such, a reasonably high level of reliability is assumed.

Uncertainties

The information may be incomplete or not applicable in all scenarios or sites. The document contains proposed management actions based on information available at the time of publication. This guidance may be subject to periodic updates over time.

Reference source

DPIE, 2018. NSW Transmission Infrastructure Strategy.

Reliability

The NSW Transmission Infrastructure Strategy is a NSW Government’s plan to unlock private sector investment in priority transmission infrastructure projects. It identifies priority projects at a point in time. It is considered to be a reliable source of information for the NSW Government's plans for the energy sector at the time of publication.

Uncertainties

This document may be subject to periodic updates over time.

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Reference source

DPIE, 2020. NSW Electricity Infrastructure Roadmap

Reliability

The Electricity Infrastructure Roadmap is the NSW Government's plan to transform the electricity system. The Roadmap coordinates investment in transmission, generation, storage and firming infrastructure as ageing coal-fired generation plants retire. It is considered to be a reliable source of information for the NSW Government's plans for the energy sector at the time of publication.

Uncertainties

This document may be subject to periodic updates over time.

Reference source

AEMO, 2020. 2020 Integrated System Plan

Reliability

AEMO published the 2020 Integrated System Plan (ISP) pursuant to its functions under section 49(2) of the National Electricity Law (which defines AEMO's functions as National Transmission Planner) and its broader functions under the National Electricity Rules to maintain and improve power system security. It is considered to be a reliable source of information about the National Electricity Market.

Uncertainties

The ISP does not include all of the information that an investor, participant or potential participant in the national electricity market might require and does not amount to a recommendation of any investment. The ISP is updated every two years.

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Section 8

Proposed alternatives

Do you have any feasible alternatives to taking the proposed action?

Yes ☑ No

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Section 9

Person proposing the action

9.1.1 Is the person proposing the action an organisation or business?

☑ Yes ☐ No

Organisation

Organisation name (as registered for ABN/ACN)	NSW Electricity Networks Operations Pty Ltd
Business name	
ABN	
ACN	609169959
Business address	180 Thomas St, Haymarket, 2000, NSW, Australia
Postal address	
Main Phone number	(02) 9284 3000
Fax	
Primary email address	Suzanne.Sheekey@transgrid.com.au
Secondary email address	

9.1.2 I qualify for exemption from fees under Regulation 5.23(1)(ii) of the EPBC Regulations because I am:

☐ Small business
☑ Not applicable

9.1.2.2 I would like to apply for a waiver of full or partial fees under Regulation 5.21A of the EPBC Regulations

☐ Yes ☑ No

9.1.3 Contact (for an organisation - the contact details of the person authorised to sign on behalf of the organisation)

First name	Brad
Last name	Hopwood
Job title	Project Director - Central-West Orana REZ Transmission
Phone	02 9284 3000
Mobile	
Fax	
Email	Brad.Hopwood@transgrid.com.au
Primary address	180 Thomas St, Haymarket, 2000, NSW, Australia
Address	

Declaration: Person proposing the action (To be signed by the person at 9.1.3)

I, Brad Hopwood **, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity.**

Signature: BHopwood **Date:** 11 October 2021

I, _____, the person proposing the action, consent to the designation of _____ as the proponent for the purposes of the action described in this EPBC Act Referral.

Signature:.....Date: .....

Australian Government
Department of Agriculture, Water and the Environment

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Proposed designated proponent

9.2.1 Is the proposed designated proponent an organisation or business?

☑ Yes ☐ No

Organisation

Organisation name (as registered for ABN/ACN)	NSW Electricity Networks Operations Pty Ltd
Business name	
ABN	
ACN	609169959
Business address	180 Thomas St, Haymarket, 2000, NSW, Australia
Postal address	
Main Phone number	02 9284 3000
Fax	
Primary email address	Suzanne.Sheekey@transgrid.com.au
Secondary email address	

9.2.2 Contact (for an organisation - the contact details of the person authorised to sign on behalf of the organisation)

First name	Brad
Last name	Hopwood
Job title	Project Director - Central-West Orana REZ Transmission
Phone	02 9284 3000
Mobile	
Fax	
Email	Brad.Hopwood@transgrid.com.au
Primary address	180 Thomas St, Haymarket, 2000, NSW, Australia
Address	

Declaration: Proposed Designated Proponent

I, Brad Hopwood **, the proposed designated proponent, consent to the designation of myself as the proponent for the purposes of the action described in this EPBC Act Referral.**

Signature: B Hopwood **Date:** 11 October 2021

Australian Government
Department of Agriculture, Water and the Environment

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Referring party (person preparing the information)

9.3.1 Is the referring party an organisation or a business?

☑ Yes ☐ No

Organisation

Organisation name (as registered for ABN/ACN)	AECOM AUSTRALIA PTY LTD
Business name	
ABN	20093846925
ACN	
Business address	420 George St, Sydney, 2000, NSW, Australia
Postal address	
Main Phone number	+61 2 8008 1700
Fax	
Primary email address	Elizabeth.thornton@aecom.com
Secondary email address	

9.3.2 Contact (for an organisation - the contact details of the person authorised to sign on behalf of the organisation)

First name	Elizabeth
Last name	Thornton
Job title	Workgroup Manager - Impact Assessment and Permitting
Phone	+61 2 8008 1700
Mobile	
Fax	
Email	Elizabeth.thornton@aecom.com
Primary address	420 George St, Sydney, 2000, NSW, Australia
Address	

Declaration: Referring party (person preparing the information)

I, Elizabeth Thornton **, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence.**

Signature: ..... Digitally signed by Thornton, Elizabeth DN: cn=Thornton, Elizabeth, ou=AUSYD1, email=Elizabeth.Thornton@aecom.com Date: 2021.10.11 17:52:45 +11'00' ..... **Date:** .....

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Appendix A

Attachment

Document Type	File Name
action_area_images	*Attachment 1_Survey Area and Project footprint.pdf
action_area_images	*Attachment 2_ProjectFootprint.kmz
action_area_images	*Attachment 2_SurveyArea.kmz
action_area_images	Att 1-Survey Area and Project footprint.pdf
action_area_images	Att 2-ProjectFootprint.kmz
action_area_images	Att 2-SurveyArea.kmz
supporting_tech_reports	*Attachment 3_EPBC AoS.pdf
supporting_tech_reports	Att 3-EPBC AoS.pdf
flora_fauna_investigation	*Attachment 4_Vegetation conditions.pdf
flora_fauna_investigation	Att 4-Vegetation conditions.pdf
corp_env_policy_docs	*Attachment 5_TGEnvironment Policy_Feb21.pdf
corp_env_policy_docs	Att 5-TGEnvironment Policy_Feb21.pdf

* NOT PUBLISHED - SUPERSEDED

Appendix B

Coordinates

Area 1
-32.411101178829,149.95557737302
-32.411140220829,149.95564432802
-32.411429484829,149.95614039802
-32.411538209829,149.95605296802
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-32.412658040829,149.95523315702
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-32.409012268829,149.95199521702
-32.410800355829,149.95506148202
-32.410927074829,149.95527879402
-32.410927280829,149.95527915302

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

-32.411055128829,149.95549840202
-32.411101178829,149.95557737302