

# Determination

## Waterloo to Surry Hills Cable Project



| Proposal details      |   |                           |  |
|-----------------------|---|---------------------------|--|
| <b>NIG</b>            | 13340   | <b>WBS</b>                | SJ-10045                               |
| <b>REF date</b>       | 4 April 2023  | <b>REF version number</b> | 338                                    |
| <b>Proponent name</b> | Ausgrid Operator Partnership (ABN 78 508 211 731), trading as Ausgrid | <b>Proponent address</b>  | 24-28 Campbell Street, Sydney NSW 2000 |
| <b>Activity class</b> | 4   | <b>HPRM reference</b>     | 2022/40758                             |

The *Review of Environmental Factors (REF) – Waterloo to Surry Hills Cable Project 4 April 2023- Version 1.0* has been reviewed and considered against the requirements of sections 5.5 and 5.7 of the *Environmental Planning and Assessment Act 1979 (EP&A Act)*.

In considering the proposal, this determination has examined and taken into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of that activity as addressed in the REF and by associated investigations and studies including the following:

- Consultation Summary Report
- Geotechnical Investigation
- Electric and Magnetic Fields Assessment
- Arborist Assessment
- Construction Noise Impact Assessment
- Historical Archaeological Assessment and Impact Statement

This determination is made following a consideration of the factors in section 5.5 of the EP&A Act, clause 171 of the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation) and the *NSW Code of Practice for Authorised Network Operators (DP&E, 2015)*.

Among other factors, the REF has considered potential impacts of the activity on critical habitat and threatened species, populations and ecological communities and their habitats for both terrestrial and aquatic species. The REF has also assessed the need for referral to the Commonwealth Minister for the Environment under the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*.

As an authorised person on behalf of Ausgrid, who did not prepare the REF, I discharge the duty as a determining authority under section 5.5 of the EP&A Act and conclude that the proposal:

- is not an activity prescribed by the EP&A Regulation as requiring an environmental impact statement (EIS)
- is not likely to significantly affect the environment (including critical habitat) or threatened species, populations or ecological communities, or their habitats, and therefore an EIS is not required
- is not to be carried out on land that is, or is a part of critical habitat, or is not likely to significantly affect threatened species, populations or ecological communities, or their habitats, and therefore a species impact statement (SIS) is not required

- is not likely to have a significant impact on matters of national environmental significance, or on the environment on Commonwealth land, and therefore referral to the Minister under the EPBC Act is not required.

Therefore the proposal to construct, operate and maintain an underground 132 kilovolt power cable from Wellington Street, Waterloo, Zetland Zone substation and Surry Hills Annex, as described in the REF, is approved on behalf of Ausgrid and may proceed without further assessment subject to compliance with and including the implementation of the following conditions of approval required to prevent, minimise, and/or offset adverse environmental impacts including economic and social impacts:

- Mitigation measures in *REF – Waterloo to Surry Hills Cable Project 4 April 2023- Version 1.0* (Refer to Attachment 1)
- All relevant statutory requirements, including approvals, licences, notifications, permits and authorisations.

Any aspects of the proposal which do not comply with the specified mitigation measures are in breach of this determination.



Jason Wall

Project Development Manager

April 2023

**Attachment 1 Mitigation measures in REF – Waterloo to Surry Hills Cable Project 4 April- V1.0**

| Impact                       | No.   | Mitigation measures   | Design | Construction | Operation |
|------------------------------|-------|---|--------|--------------|-----------|
| Land use                     | 5.1.1 | Consult with affected stakeholders about the proposal.  | ✓      | ✓            |           |
|                              | 5.1.2 | Provide information via a free call 1800 number, email address and Ausgrid's website for people wanting more information.   | ✓      | ✓            |           |
| Climate Change               | 5.2.1 | Comply with section 8 of NS174C Environmental Handbook.   |        | ✓            |           |
|                              | 5.2.2 | Report information on energy production, energy consumption and the amount of greenhouse gas emissions to the Clean Energy Regulator for the facilities on an annual basis by 31 October the following year.  |        |              | ✓         |
|                              | 5.2.3 | Recycled materials considered and used where cost effective and no impact on engineering properties.  | ✓      | ✓            |           |
|                              | 5.2.4 | All plant and equipment would be turned off when not in use.  |        | ✓            | ✓         |
| Electric and magnetic fields | 5.3.1 | Implement no cost and very low cost measures to reduce magnetic field exposure, including where relevant: <ul style="list-style-type: none"> <li>• using a compact phase configuration (e.g. trefoil)</li> <li>• using optimum phase arrangement for dual circuits</li> <li>• allowing for spare conduits to be arranged in the optimal phase arrangement, namely inverted trefoil</li> </ul>   | ✓      | ✓            |           |
|                              | 5.3.2 | Within the carriageway locate cables to minimise exposure as far as reasonably practicable (with potential increased temporary construction impacts).   | ✓      | ✓            |           |
| Noise and vibration          | 5.4.1 | Comply with sections 4.2 of NS174C Environmental Handbook.  |        | ✓            |           |
|                              | 5.4.2 | The contractor is to identify the presence of sensitive receivers within each pre-defined noise catchment area (NCA; Appendix G) and consider all reasonable and feasible measures to minimise impact on these receivers.   |        |              |           |
|                              | 5.4.3 | All workers to be made aware of the presence of sensitive receivers in the area and the need to manage impacts.   |        | ✓            |           |
|                              | 5.4.4 | Provide at least four clear business days notice to affected receivers prior to starting work unless it is emergency works or it is discussed with the affected receivers face-to-face. Include the following information in notification letters: <ul style="list-style-type: none"> <li>• a description of the works and why they are being undertaken</li> <li>• details of the works that will be noisy</li> <li>• work hours and expected duration</li> <li>• what is being done to minimise the impacts (eg respite periods)</li> </ul> 24 hour contact number. |        | ✓            |           |
|                              | 5.4.5 | Consult with any affected sensitive receivers (eg schools, restaurants, hospitals, childcare, etc) within the identified NCA's  |        | ✓            |           |
|                              | 5.4.6 | Plan the site layout to minimise movements that would activate audible reversing and movement alarms.   |        | ✓            |           |

| Impact | No.    | Mitigation measures   | Design | Construction | Operation |
|--------|--------|---|--------|--------------|-----------|
|        |        |   |        |              |           |
|        | 5.4.7  | Provide respite periods for affected receivers: <ul style="list-style-type: none"> <li>one hour respite after every three consecutive hours of high impact activities</li> </ul> one day respite after every three consecutive days of high impact activities.                      |        | ✓            |           |
|        | 5.4.8  | Do not affect a receiver for more than two nights in a one week period.   |        | ✓            |           |
|        | 5.4.9  | Due to unavoidable work requirements or due to a regulatory licence requirement (eg RMS) out of hours and/or night works may be required.   |        | ✓            |           |
|        | 5.4.10 | Where the ROL stipulates out of hours work the works must meet the requirements of NS174C Environmental Handbook, out of hours work criteria or a site specific noise management plan.  |        | ✓            |           |
|        | 5.4.11 | Develop and comply with a Construction Noise Management Plan as part of the CEMP for the work. The Plan must be in accordance with the Interim Construction Noise Guidelines (NSW DECC, 2009).  |        | ✓            |           |
|        | 5.4.12 | For out of hours work, consider notifying local council.  |        | ✓            |           |
|        | 5.4.13 | Provide information via a free call 1800 number, email address and Ausgrid's website for people wanting more information.   |        | ✓            |           |
|        | 5.4.14 | <ul style="list-style-type: none"> <li>Provide signage outside the worksite detailing who is undertaking the works and a 24 hour contact number.</li> </ul>   | ✓      | ✓            |           |
|        | 5.4.15 | Have a documented complaints process, including an escalation procedure so that if a complainant is not satisfied there is a clear path to follow   |        | ✓            |           |
|        | 5.4.16 | Keep a register of any complaints, including details of the complaint such as date, time, person receiving complaint, complainant's contact number, person referred to, description of the complaint, time of verbal response and timeframe for written response where appropriate. |        | ✓            |           |
|        | 5.4.17 | Undertake condition reports of structures that may be at risk of vibration generating works, with 5m of a structure.  |        | ✓            |           |
|        | 5.4.18 | Reinstate joint bays as soon as practicable to minimise the time that road plates are left in place.  | ✓      | ✓            |           |
|        | 5.4.19 | Once installed pits lids must not rock and make noise. Impact absorbing material must be installed between pit lids to prevent noise nuisance as a result of joint pits.  |        | ✓            |           |
|        | 5.4.20 | Recess road plates flush with the road surface when not in use for more than 2 nights.  |        | ✓            |           |
|        | 5.4.21 | Seek guidance from the Construction Noise Impact Assessment provided in Appendix G.   |        | ✓            |           |
|        | 5.4.22 | Pre-cast joint bays are to be utilised to reduced timing of construction. If joint bay construction is take more than three weeks a quantitative noise assessment in accordance with the ICNG will be required at each location.  |        | ✓            |           |

| Impact      | No.    | Mitigation measures  | Design | Construction | Operation |
|-------------|--------|--|--------|--------------|-----------|
|             |        |  |        |              |           |
|             | 5.4.23 | Mains supply should be used at joint bays were practicable. Where mains supply is not reasonable, low noise generators are to be used at joint bays and accompanied with noise barriers surrounding the generator, which are; <ul style="list-style-type: none"> <li>positioned close to the noise source</li> <li>continuous with no gaps,</li> <li>break the line of sight between the source and receiver, and constructed of material sufficient to dampen or reduce noise from the source.</li> </ul>             |        | ✓            |           |
|             | 5.4.24 | Construction works should adopt Best Management Practice (BMP) and Best Available Technology Economically Achievable (BATEA) practices as addressed in the ICNG. BMP includes factors discussed within this report and encouragement of a project objective to reduce noise emissions. BATEA practices involve incorporating the most advanced and affordable technology to minimise noise emissions.  |        | ✓            |           |
|             | 5.4.25 | When undertaking noisy works (saw cutting, trenching or compaction), a noise barrier close to the source and between the receiver is required when; <ul style="list-style-type: none"> <li>within 5m of a sensitive receiver,</li> <li>within 15m of a sensitive receiver when outside standard operating hours,</li> <li>in one location for greater than 2 consecutive days and less than 15m from a sensitive receiver, or</li> </ul> where other mitigation measures (refer to Section 8) have not been effective. |        | ✓            |           |
| Air quality | 5.5.1  | Comply with sections 2.1 Erosion and sediment control and 4.1 Air of NS174C Environmental Handbook   |        | ✓            |           |
|             | 5.5.2  | All workers to be made aware of the presence of sensitive receivers in the area and the need to avoid impacts.   |        | ✓            |           |
|             | 5.5.3  | Use water sprays to dampen (but not saturate) disturbed surfaces and stockpiles, at material transfer points and during construction and demolition.   |        | ✓            |           |
|             | 5.5.4  | Visually monitor dust levels during works. If dust is leaving site, causing a safety issue or complaints are received suspend works and consider mitigation options and/or substitute with an alternate process.   |        | ✓            |           |
|             | 5.5.5  | Use dust collection devices (such as vacuum) on construction and rock breaking equipment where available.  |        | ✓            |           |
|             | 5.5.6  | Minimise stockpiling on site. All spoil to be tipped into a truck or skip bin.   |        | ✓            |           |
|             | 5.5.7  | Position vehicles and equipment where the fumes will least affect receivers, where practicable.  |        | ✓            | ✓         |
|             | 5.5.8  | Do not leave vehicles or equipment idling when they are not needed.  |        | ✓            | ✓         |
| Hydrology   | 5.6.1  | Comply with sections 2.1 Erosion and sediment control, 2.3 Oil fuel and chemicals and 2.2 Water discharge of NS174C Environmental Handbook.  |        | ✓            |           |
|             | 5.6.2  | All workers to be made aware of the presence of sensitive areas and the need to avoid impacts.   |        | ✓            |           |

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|---------------|------------------|---|--|--------------|-----------|--|
|               |                  |   |  |              |           |  |
|               | 5.6.3            | Maintain sediment controls consistent with environmental conditions, especially during periods of rainfall.   |  | ✓            |           |  |
|               | 5.6.4            | Remove temporary erosion and sediment controls as the site is stabilised or rehabilitation is complete  |  | ✓            |           |  |
|               | 5.6.5            | All spoil to be tipped into a truck or skip bin. Any stockpiling on site is to be in consultation with Ausgrid.   |  | ✓            |           |  |
|               | 5.6.6            | Contain slurry using a wet-vac.   | ✓  | ✓            |           |  |
|               | 5.6.7            | During construction, any encountered groundwater would require additional testing to be undertaken, the development of a Water Quality Management Plan and advice sought on the need for a dewatering license.                                    |  | ✓            | ✓         |  |
|               | 5.6.8            | During construction, any surface water seepage would need to be appropriately managed, either being discharged on site or removed via tanker. Refer to Ausgrid's NS174C for dewatering criteria.  |  | ✓            |           |  |
|               | 5.6.9            | Prior to the commencement of any HDD work, develop a Frac-out Management Plan consistent with the complexity of the bore and sensitivity of the environment, refer to Section <b>Error! Reference source not found.</b> for minimum requirements. |  | ✓            | ✓         |  |
|               | 5.6.10           | Store oil in a bund unless it is temporary storage in accordance with NS174C.   |  | ✓            |           |  |
|               | 5.6.11           | Ensure a spill kit is readily available and workers know how to use it.   |  | ✓            |           |  |
|               | 5.6.12           | Decommissioning of fluid filled cables and fluid tanks will be conducted in accordance with Fluid Filled Cable Decommissioning Plan and NS156. Ongoing management of decommissioned cables in accordance with Ausgrid Procedures.                 |  | ✓            |           |  |
|               | Geology and soil | 5.7.1   | Comply with section 2.1 Erosion and sediment control of NS174C Environmental Handbook.   |              | ✓         |  |
|               |                  | 5.7.2   | All workers to be made aware of the presence of sensitive areas (such as steep gradients in proximity to drains and gutters) and the need to avoid impacts associated with sediment control. |              | ✓         |  |
| Contamination | 5.8.1            | Comply with section 5.1 Contamination of NS174C Environmental Handbook.   | ✓  | ✓            | ✓         |  |
|               | 5.8.2            | Intrusive workers to remain vigilant in their assessment of identified potential contamination consistent with NS174C at locations deemed to be high risk or where there is a known history of contamination. See also Appendix D.                |  | ✓            | ✓         |  |
|               | 5.8.3            | Segregate suspected contaminated spoil from clean spoil to reduce disposal costs.   |  | ✓            |           |  |
|               | 5.8.4            | Undertake testing to determine the waste classification and subsequent storage, transport, tracking, licensing and disposal requirements.   | ✓  | ✓            |           |  |
|               | 5.8.5            | Provide a secure and bunded area for the storage of fuel, oil or chemicals. This area would be imperviously bunded with a capacity to contain not less than 110% of the volume of the largest container.  |  | ✓            |           |  |

| Impact | No.    | Mitigation measures  | Design | Construction | Operation |
|--------|--------|--|--------|--------------|-----------|
|        |        |  |        |              |           |
|        | 5.8.6  | Temporarily store excavated known or suspected contaminated spoil in a covered, lined/ sealed skip or bulk storage bag or sealed container on-site for classification prior to disposal off site. Where there are site restrictions for on-site storage, store offsite. If storing more than 5 tonnes of spoil, use a licensed storage facility. There may also be a requirement for having a licence to transport the spoil (there are exemptions for Ausgrid staff).   |        | ✓            |           |
|        | 5.8.7  | If you think that you have found contamination, you must stop work immediately, restrict access and notify: <ul style="list-style-type: none"> <li>• your supervisor,</li> <li>• Ausgrid's Environmental Services, and</li> <li>• your local safety advisor for WHS requirements.</li> </ul>   |        | ✓            |           |
|        | 5.8.8  | Bedding sands around the 132kV fluid filled cables may contain Scheduled Pesticides (Organochlorine Pesticides). Comply with NS 156 when working near or around underground cables.  |        | ✓            | ✓         |
|        | 5.8.9  | Soil excavated from Ausgrid's 132kV fluid filled cable trenches must be contained in a plastic lined and covered secure bin to prevent water ingress or dust escape.   |        | ✓            | ✓         |
|        | 5.8.10 | If the soil is not contaminated with cable fluid (or anything other than OCP) it can be replaced in the trench to original depths. Soil excavated from the below the protective slab must be reinstated below the protective slab.   |        | ✓            | ✓         |
|        | 5.8.11 | If soil from below the slab of existing 132kV cable trenches is not contaminated with anything other than OCP, reinstate it below the slab.  |        | ✓            | ✓         |
|        | 5.8.12 | If soils from below the slab of existing 132kV cable trenches is contaminated with substances other than OCP: <ul style="list-style-type: none"> <li>• do not reinstate the soil in the trench and assume the soil is hazardous waste until it is classified,</li> <li>• wear appropriate PPE,</li> <li>• transport using a licensed transporter to a premises licensed to store the contaminated soil,</li> <li>• arrange for classification of the soil, and</li> <li>• dispose of the soil offsite in accordance with the classification</li> </ul> |        | ✓            | ✓         |
|        | 5.8.13 | When transporting soil where the concentration of Aldrin or Dieldrin in the soil is 5-mg/kg or greater, or the presence has not been ruled out, the following additional controls apply: <ul style="list-style-type: none"> <li>• The transport vehicle must carry personnel trained in containing spills of OCP contaminated spoil.</li> <li>• Appropriate PPE, clean up material and equipment must be carried on the transport vehicle.</li> </ul>  |        | ✓            | ✓         |
|        | 5.8.14 | Any person handling the waste is trained in handling Scheduled Chemicals and methods of containing Scheduled Chemical spills and wears Personal Protective Equipment (PPE).  |        | ✓            | ✓         |
|        | 5.8.15 | All packages / storage containers are clearly labelled and maintained in good order.   |        | ✓            | ✓         |



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|--------|--------|---|--------|--------------|-----------|
|        |        |   |        |              |           |
|        | 5.8.16 | Provide a secure, lockable and floored area for the storage of fuel, oil or chemicals. This area would be imperviously bunded with a capacity to contain not less than 110% of the volume of the largest container.   |        | ✓            |           |
|        | 5.8.17 | Prior to construction, nominate and sign post a plant refueling area.   | ✓      | ✓            |           |
|        | 5.8.18 | If asbestos is encountered in soil or old conduits or joint bays during construction, the works would cease, access restricted and the asbestos managed and disposed of in accordance with NS 211 Working with Asbestos Products and NSW EPA Waste Classification Guidelines 2014.  |        | ✓            | ✓         |
|        | 5.8.19 | Where the soil contains contaminants such as cable fluid, spoil should be disposed off-site to a suitably licensed waste facility. The waste must be classified in accordance with the NSW EPA Waste Classification Guidelines. The sampling must include OCPs.   |        | ✓            | ✓         |
| Waste  | 5.9.1  | Comply with section 5.3 Waste management of NS174C Environmental Handbook.  |        | ✓            |           |
|        | 5.9.2  | Classify wastes to determine licensing, waste tracking and disposal requirements.   |        | ✓            |           |
|        | 5.9.3  | Segregate and label waste to improve recycling opportunities, avoid cross contamination and reduce disposal costs.  |        | ✓            |           |
|        | 5.9.4  | Where possible, reuse or recycle or return to the supplier wastes including metal components, spoil and packaging.  |        | ✓            | ✓         |
|        | 5.9.5  | Reuse VENM and ENM where options are available. Ensure that: <ul style="list-style-type: none"> <li>a valid waste classification certificate is available and</li> <li>the reuse meets the conditions of the planning approval for that site.</li> </ul>  |        | ✓            |           |
|        | 5.9.6  | Where more than 50kg but less than 1 tonne of Scheduled Chemical Waste (SCW) is stored, ensure that: <ul style="list-style-type: none"> <li>there is a clearly defined storage area with conspicuous warning notices</li> <li>the storage area is constructed to prevent discharge into the external environment. This can be satisfied by storing in a plastic lined and covered bin</li> <li>an adequate supply of PPE, clean-up material and equipment must be available in a secure external location from the storage area.</li> </ul> |        | ✓            |           |
|        | 5.9.7  | Where more than 1 tonne of SCW is stored: <ul style="list-style-type: none"> <li>a licence is required to store the waste.</li> <li>comply with the conditions of the licence</li> <li>perform monthly inspections for unauthorised entry or leakage and keep a log at the storage area containing details and reports of inspections.</li> </ul>   |        | ✓            |           |



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|                 |        |   |        |              |           |
|                 | 5.9.8  | When transporting SCW with a concentration of more than 50mg/kg, personnel accompanying the vehicle must: <ul style="list-style-type: none"> <li>be trained in methods of containing spilled scheduled chemicals</li> <li>be provided with adequate personal protective equipment, clean up material and equipment to deal with any spill</li> <li>notify the EPA of any spill.</li> </ul>  |        | ✓            |           |
|                 | 5.9.9  | A transport licence or waste tracking is not required to transport oil (liquid or hazardous waste) in Ausgrid vehicles between Ausgrid locations (eg from the substation to a depot). A licence for storage of liquid or hazardous waste of greater than 5 tonnes is required. If these licensing thresholds are breached ensure storage is on a licensed Ausgrid depot. If liquid or hazardous waste will be transported by non-Ausgrid vehicles the appropriate licences must be in place. The waste oil must be disposed of to a facility licensed to accept Liquid and, or hazardous waste. Ausgrid employees must manage the waste oil in accordance with Ausgrid's waste licence and additional requirements outlined in EG 120 Waste Guidelines. |        | ✓            |           |
|                 | 5.9.10 | Ensure a spill kit is readily available and workers and know how to use it.   |        | ✓            |           |
| Flora and fauna | 5.10.1 | Comply with section 6 Ecology of NS174C Environmental Handbook.   |        | ✓            |           |
|                 | 5.10.2 | All workers to be made aware of the presence of sensitive (including the identified Tree Protection and Structural Root Zones provided for in Appendix E) areas and the need to avoid impacts.  | ✓      | ✓            |           |
|                 | 5.10.3 | Digitised tree mapping is to form part of the contractors CEMP and referred to during works.  | ✓      | ✓            |           |
|                 | 5.10.4 | Prior to construction, mark and fence off areas to avoid tree protection structural root zones (SRZTP) where works are in close proximity. Works should where possible be confined to the road surface and away from the footpath so that fencing is not required.  | ✓      | ✓            |           |
|                 | 5.10.5 | Where cables must be laid within the TPZ, minimise the extent impacted and for significant encroachments, underbore HDD/ directional drill at least 600 mm beneath the ground surface, or if excavating, hand dig or use an air knife.  | ✓      | ✓            |           |
|                 | 5.10.6 | Keep storage areas, stockpiles, vehicle parking, and access tracks clear of the TPZ. Works should where possible be confined to the road surface only.  | ✓      | ✓            |           |
|                 | 5.10.7 | Comply with the Tree Safety Management Plan when undertaking vegetation pruning/ removal and maintenance works. Minor branches can only be pruned in a very minor or inconsequential manner.  |        |              | ✓         |
|                 | 5.10.8 | Vegetation clearing and pruning to comply with NEG-OH21 Vegetation Safety Clearances / ISSC3 Guideline for Managing Vegetation Near Powerlines/Bushfire Risk Management Plan .  |        |              | ✓         |
|                 | 5.10.9 | Where works could inadvertently harm adjacent vegetation, implement measures to protect the TPZ and the vegetation.   | ✓      | ✓            |           |

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|                     | 5.10.10 | Where trenching is planned within the SRZ or vegetation removal is considered required, the encroachment and removal process is to be followed as outlined in Section <b>Error! Reference source not found.</b> of the REF.   | ✓      | ✓            |           |
|                     | 5.10.11 | Contact local wildlife rescue organisations for the rescue or care of native wildlife (refer to section 10 of NS174C Environmental Handbook)  |        | ✓            |           |
|                     | 5.10.12 | Keep to designated roads and access tracks. Restrict vehicle and plant movements to existing cleared areas.   |        | ✓            | ✓         |
|                     | 5.10.13 | No disturbance of bush rock, tree hollows, wetlands, mangroves, nests, aquatic or other sensitive habitats.   |        | ✓            |           |
|                     | 5.10.14 | No storing equipment, parking vehicles or accessing the site through undisturbed areas.   |        | ✓            |           |
|                     | 5.10.15 | Use non invasive species for landscaping or as determined by Council.   |        | ✓            |           |
|                     | 5.10.16 | No importing mulch from other sites.  |        | ✓            |           |
|                     | 5.10.17 | Provide an escape route for fauna if trenches or pits will be open extended periods (eg log or stick)   |        | ✓            | ✓         |
|                     | 5.10.18 | Vegetation to be retained must be identified and protected to prevent damage from workers and machinery and remain in place for the duration of construction work.  | ✓      | ✓            |           |
|                     | 5.10.19 | <p>A number of mitigation measures will be implemented to avoid impacts on the root systems of trees including;</p> <ul style="list-style-type: none"> <li>• marking out of protection zones when works are in proximity,</li> <li>• utilising non-destructive means (hand-digging, hydro-vac) when within the TPZ</li> <li>• seeking arborist advice where roots greater than 40mm need to be severed within either encroachment zone</li> <li>• utilising the due diligence process whenever works are within the structural root zone and</li> <li>• considering horizontal directional drilling or other techniques to avoid the root systems of major trees.</li> </ul> <p>Refer to attached Arborist report (Appendix E) for all mitigation measures.</p> | ✓      | ✓            |           |
| Bush fire           | 5.11.1  | Comply with section 6.4 Total fire bans of NS174C Environmental Handbook.   |        | ✓            |           |
|                     | 5.11.2  | During a total fire ban, no open fires or hot works are to be undertaken unless in accordance with an exemption granted by the NSW RFS.   |        | ✓            | ✓         |
|                     | 5.11.3  | Any hot works during a total fire ban must be in accordance with a Clause 6 Exemption. This includes grinding, welding, brazing, oxy-cutting, heat treatment or processes that generate heat or continuous streams of sparks. The Contractor or ASP must obtain their own exemption.  |        | ✓            | ✓         |
|                     | 5.11.4  | Hot work activities to be clear of combustible matter by at least 3 metres. Keep adequate firefighting equipment immediately at hand.   |        | ✓            | ✓         |
| Aboriginal heritage | 5.12.1  | Comply with section 7.1 Aboriginal heritage of NS174C Environmental Handbook.   |        | ✓            |           |
|                     | 5.12.2  | No impact on rock outcrops  |        | ✓            |           |

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|-------------------------|--------|---|--------|--------------|-----------|
|                         |        |   |        |              |           |
| Non-Aboriginal heritage | 5.13.1 | Comply with section 6.2 Non-Aboriginal heritage of NS174C Environmental Handbook.   | ✓      | ✓            |           |
|                         | 5.13.2 | All workers to be made aware of sensitive areas and the need to avoid impacts.  | ✓      | ✓            |           |
|                         | 5.13.3 | No physical alterations to heritage items   |        | ✓            |           |
|                         | 5.13.4 | No impacts to potential heritage items eg sandstone gutters, sandstone walls  |        | ✓            |           |
|                         | 5.13.5 | No excavations within those two identified archaeological areas outlined above and further documented in Appendix F without monitoring by an archaeologist under the framework of an Archaeological Research Design, consistent with the <a href="#">excavation exception permit requirements</a> set out by Heritage NSW   | ✓      | ✓            |           |
|                         | 5.13.6 | All other work areas should be excavated under an Unexpected Finds Procedure, as provided for in the Historical Archaeological Assessment and Impact Statement (Appendix F)   | ✓      | ✓            |           |
|                         | 5.13.7 | All works to cease if potential heritage is discovered. Access should be restricted and Supervisor notified to ensure regulator is contacted. Ausgrid employees should contact Ausgrid Environmental Services on 9394 6659.   |        | ✓            | ✓         |
|                         | 5.13.8 | Barricades or equivalent to be used to prevent damage to the heritage item and the location of the item should be highlighted to all construction personnel as part of the site induction.  |        | ✓            |           |
|                         | 5.13.9 | Undertake a dilapidation survey of the heritage listed building prior to the commencement of works if deemed to be at risk of impact.   | ✓      |              |           |
| Visual and aesthetics   | 5.14.1 | Consult with affected stakeholders about the proposal.  | ✓      | ✓            |           |
|                         | 5.14.2 | The cables would be installed underground within existing roadways.   | ✓      | ✓            |           |
|                         | 5.14.3 | Reinstate the roadways post works to a suitable condition.  |        | ✓            |           |
| Traffic and access      | 5.15.1 | Where works are proposed on a classified road, consent is required under section 138(1) of the Roads Act 1993. To apply for a section 138 consent, write to TfNSW for classified state roads or the relevant local council for classified regional roads to request approval, providing a description of the work and including a plan showing the extent of the works.<br>An ROL must be obtained from TfNSW if working on a classified Road, a total road closure or within 100m of traffic lights. | ✓      | ✓            |           |
|                         | 5.15.2 | All potentially affected residents and businesses are to be provided with 48 hours' notice of any access changes to properties. Where residents and businesses are directly affected by the work (eg their access will be restricted), one week's notice must be given.   | ✓      | ✓            |           |
|                         | 5.15.3 | Reinstate roads post works in consultation with council/TfNSW.  |        | ✓            |           |
| Social and economic     | 5.16.1 | EMF, noise, visual and traffic mitigation measure as outlined in Section 5 of the REF would reduce potential impacts on the surrounding community.  | ✓      | ✓            | ✓         |