

Appendix A

SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIRMENTS

Environmental Assessment Requirements

State Significant Infrastructure

Section 115Y of the *Environmental Planning and Assessment Act 1979*

Application Number	SSI 17_8583
Project	Power Sydney's Future – Potts Hill to Alexandria Transmission Cable Project
Location	Rookwood Substation to Beaconsfield West Substation; and Sydney South Substation in the Strathfield, Canterbury-Bankstown, Inner West and City of Sydney local government areas
Proponent	TransGrid
Date of Issue	20 August 2019

Requirements		Section addressed
General	<p>The Environmental Impact Statement (EIS) for the project must comply with the requirements in Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>.</p> <p>In particular, the EIS must include:</p> <ul style="list-style-type: none"> a stand-alone executive summary; 	Executive Summary

Requirements	Section addressed
<ul style="list-style-type: none"> • an assessment of the likely impacts of the project on the environment, focusing on the specific issues identified below, including: <ul style="list-style-type: none"> - a description of the existing environment likely to be affected by the project; - an assessment of the likely impacts of all stages of the project, including any cumulative impacts, taking into consideration any relevant legislation, environmental planning instruments, guidelines, policies, plans and industry codes of practice; - a description of the measures that would be implemented to avoid, mitigate and/or offset residual impacts of the project, and the likely effectiveness of these measures; and - a description of the measures that would be implemented to monitor and report on the environmental performance of the project, if it is approved (with a focus on performance-based measures to reduce the reliance on environmental management plans). • a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS; • consideration of the project against all relevant environmental planning instruments; • an evaluation of the merits of the project having regard to the requirements in Section 4.15 of the <i>Environmental Planning and Assessment Act 1979</i>; and • the reasons why the project should be approved having regard to biophysical, economic and social considerations, including the principles of ecologically sustainable development. <p>While not exhaustive, Attachment 1 contains a list of some of the environmental planning instruments, guidelines, policies, and plans that may be relevant to the environmental assessment of this project.</p> <p>The EIS must be accompanied by a signed report from a suitably qualified expert that includes an accurate estimate of the capital investment value (as defined in Clause 3 of the Environmental Planning and Assessment Regulation 2000) of the project, including details of all the assumptions and components from which the capital investment value calculation is derived.</p>	<p>Chapter 7 to Chapter 22 of the EIS</p> <p>Chapter 23 Environmental management and mitigation measures</p> <p>Chapter 5 Statutory planning and approval process</p> <p>Chapter 2 Strategic context and project need and Chapter 24 Project justification and conclusion</p>

Requirements		Section addressed
Traffic and Transport	<p>The EIS must address the following in regards to traffic and transport:</p> <ul style="list-style-type: none"> • a consideration of the nature of existing traffic (types and volume) along the project route, including consideration of peak traffic times and sensitive road users and parking arrangements; • details of traffic volumes (both light and heavy vehicles) and transport routes to be used during construction of the project, including traffic associated with sourcing raw materials (water, sand and gravel); • an assessment of potential impacts on road network function, road safety and access constraints, particularly where the project route would impact a major arterial road (including the Hume Highway, Rookwood Road, Punchbowl Road, Old Canterbury Road, New Canterbury Road, the Princes Highway, Euston Road and Burrows Road); • an assessment of the need to close, divert or otherwise reconfigure elements of the road, public transport, pedestrian and bicycle networks (including the proposed Greenway at the Dulwich Hill Light Rail) during the construction of the project, including an estimate of the duration of the altered access arrangements; • details of how and when works would be carried out along road and rail transport corridors, outlining the mitigation measures to ensure that regular road and rail operations are not impeded; • details regarding the management measures for underground works to maintain the integrity of the road and rail networks; • details of the ongoing maintenance works required to service assets, outlining the measures to maintain regular road and rail networks; and • details of measures to mitigate and / or manage potential impacts, including measures to maintain pedestrian and cyclist movements along footways and bicycle paths at all times during construction activities, developed in consultation with the relevant road authority. 	<p>Refer to Chapter 7 Traffic and transport and the following sections in Appendix D Traffic and Transport Assessment:</p> <p>Annexure B and Section 3.3</p> <p>Section 5.2</p> <p>Section 5.0</p> <p>Section 4.0 and Section 5.0</p> <p>Section 6.0</p> <p>Section 6.0</p> <p>Section 5.0</p> <p>Section 6.0</p>
Noise and Vibration	<p>The EIS must address the following in regards to noise and vibration:</p>	<p>Refer to Chapter 8 Noise and vibration and the following sections in Appendix E Construction Noise and Vibration Impact Assessment.</p>

Requirements		Section addressed
	<ul style="list-style-type: none"> an assessment of the likely construction noise impacts of the project under the <i>Interim Construction Noise Guidelines</i> (DECC, 2009); an assessment of the likely vibration amenity and structural impacts of the project under the <i>Assessing Vibration: A Technical Guideline</i> (DECC, 2006) and German Standard DIN 4150-3 Structural Vibration – Effects of vibration on structures, including consideration of impacts to the structural integrity and significance of heritage items; where blasting is required during construction, an assessment of blast impacts in accordance with the relevant guidelines; and measures to be implemented to minimise noise impacts, including the use of staging the construction and respite periods to reduce impacts on sensitive land uses. 	<p>Section 6.4</p> <p>Section 6.7</p> <p>N/A</p> <p>Section 7.0</p>
Air Quality	<p>The EIS must address the following in regards to air quality:</p> <ul style="list-style-type: none"> an assessment of the likely air quality impacts of the project in accordance with the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA, 2016); demonstrated ability to comply with the relevant regulatory framework, specifically the Protection of the Environment Operations Act 1997 and the Protection of the Environment Operations (Clean Air) Regulation 2010; and details of the proposed mitigation measures to prevent the generation and emission of dust and air pollutants (including odours) during the construction of the proposal, particularly in relation to the use of mobile plant, stockpiles and movement of spoil. 	<p>Refer to Chapter 9 Air quality and the following sections in Appendix F Air Quality Impact Assessment:</p> <p>Section 5.0</p> <p>Section 5.0</p> <p>Section 7.2</p>
Hazard and Risk	<p>The EIS must address the following in regards to hazards and risks:</p> <ul style="list-style-type: none"> an assessment of potential hazards and risks associated with electric and magnetic fields (EMF) having regard to the latest advice of the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA); 	<p>Refer to Section 10.6 of Chapter 10 Electric and magnetic fields</p> <p>Refer to following sections in Chapter 11 Hazards and risk:</p>

Requirements		Section addressed
	<ul style="list-style-type: none"> an assessment of human health risks, including those associated with air quality, noise and vibration, and social impacts on the adjacent and surrounding areas during the construction of the development; and an assessment of the likely risks of the development to public safety, paying particular attention to pedestrian and cyclist safety, bushfire risks and the handling and use of dangerous goods. 	<p>Section 11.3</p> <p>Sections 11.3 and 11.4</p>
Visual amenity	<p>The EIS must address the following in regards to visual amenity:</p> <ul style="list-style-type: none"> evaluate the visual impacts and urban design aspects of the proposal and its components focusing on above ground structures, including the built structures at Rookwood Substation and Beaconsfield West Substation and any bridging structures; an assessment of the likely visual impacts of the project on residences in the vicinity of the project, key vantage points in the public domain, streetscapes, public open space, key sites and buildings, heritage conservation areas, State and local heritage items, and the local community; and an assessment of the likely impacts on street trees and public open space; and measures to be implemented to replace and enhance the visual and public amenity impacts. 	<p>Refer to Chapter 12 Visual amenity and the following sections in Appendix G Landscape Character and Visual Impact Assessment:</p> <p>Sections 5.0 and 6.0</p> <p>Section 6.0 and Appendix O Arboricultural Impact Assessment</p> <p>Section 8.2</p>
Biodiversity	<p>The EIS must address the following in regards to biodiversity:</p> <ul style="list-style-type: none"> an assessment of the biodiversity values and the likely biodiversity impacts of the project in accordance with Section 7.9 of the Biodiversity Conservation Act 2016 (NSW) the Biodiversity Assessment Method (BAM) and documented in a Biodiversity Development Assessment Report (BDAR); 	<p>Refer to Chapter 13 Biodiversity and the following sections in Appendix H Biodiversity Development Assessment Report:</p> <p>Sections 1.0 and 2.0</p>

Requirements		Section addressed
	<ul style="list-style-type: none"> the BDAR must document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the BAM; an assessment of the likely impacts on key fish habitat, marine vegetation and threatened species of fish, in accordance with the Fisheries Management Act 1994, and a description of the measures to minimise and rehabilitate impacts; and details of the proposed mitigation measures to reduce the impacts of the development on biodiversity. 	<p>Section 2.0</p> <p>Annexure E (Key fish habitat, marine vegetation and threatened fish impact assessment)</p> <p>Sections 2.2.5 and 2.4.2</p>
Heritage	<p>The EIS must address the following in regards to heritage:</p> <ul style="list-style-type: none"> an assessment of the impact on Aboriginal cultural heritage (archaeological and cultural) in accordance with the <i>Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW</i> (OEH) and the Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW (OEH); adequate consultation with Aboriginal stakeholders having regard to the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010); an assessment of the impact on environmental heritage including heritage conservation areas and State and local heritage items, as defined under the <i>Heritage Act 1977</i>, having regard to the NSW Heritage Manual. 	<p>Refer to Chapter 14 Aboriginal heritage and Chapter 15 Non-Aboriginal heritage and the following sections in Appendix I Aboriginal Cultural Heritage Assessment Report and Appendix J Historical Heritage Impact Assessment:</p> <p>Section 9.0 of Appendix I</p> <p>Section 6.0 of Appendix I</p> <p>Section 5.0 of Appendix J</p>
Water	<p>The EIS must address the following in regards to water:</p> <ul style="list-style-type: none"> a description of water demand, a breakdown of water supplies and the measures to minimise water use; 	<p>Refer to Chapter 17 Surface water and flooding and Chapter 18 Groundwater and the following sections in Appendix L Surface Water and Flooding Report and Appendix N Groundwater Report:</p> <p>Section 5.7 of Appendix L.</p>

Requirements		Section addressed
	<ul style="list-style-type: none"> an assessment of the impacts of the project on the quantity and/or quality of surface and groundwater resources; an assessment of the impacts of the project on watercourses (including the Cooks River and Coxs Creek), waterfront land, water related infrastructure and other water users, including an assessment of the use and discharge of water during construction and maintenance of the project; and a description of the measures to minimise surface and groundwater impacts, including how works on steep gradient land or erodible soils types would be managed and any contingency requirements to address residual impacts. 	<p>Sections 5.0 and 6.0 of Appendix L and Appendix N.</p> <p>Sections 5.0 and 6.0 of Appendix L.</p> <p>Section 7.0 of Appendix L and Appendix N.</p>
Soils	<p>The EIS must address the following in regards to soils:</p> <ul style="list-style-type: none"> verification of the risk of acid sulfate soils (Class 1, 2 3 or 4 on the Acid Sulfate Soil Risk Map) along the project route and an assessment of the impacts of the project on acid sulfate soils (including impacts of acidic run-off offsite) in accordance with the current guidelines; identification, handling, transport and disposal of any asbestos containing material and other contamination encountered during the project, having regard to the ecological and human health risks posed by the contamination in the context of past, existing and likely (or potential) future land uses. Where assessment and/or remediation is required, document how the assessment and/or remediation would be undertaken in accordance with the current guidelines; and an assessment of the impacts on soil and land resources (including erosion risk or hazard), with attention to soil erosion and sediment transport consistent with the practices and principles in the current guidelines. 	<p>Refer to Chapter 16 Soils and contamination and the following sections in Appendix K Phase 1 Preliminary Site Investigation Report and Appendix L Surface Water and Flooding Report:</p> <p>Sections 4.1.2, 5.1.1.3 and 6.2 of Appendix K.</p> <p>Section 4.1.17, 5.1, 5.2, and 6.2 of Appendix K and Section 4.7 of Appendix L.</p> <p>Section 5.3 of Appendix L.</p>

Requirements		Section addressed
Waste Management	<ul style="list-style-type: none"> identification, quantification and classification of the likely waste streams likely to be generated during construction and operation, and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste, including suitable locations for disposal or reuse of spoil generated during construction. 	Refer to Chapter 19 Waste management
Social and economic	<p>The EIS must address the following in regards to social and economic:</p> <ul style="list-style-type: none"> an assessment of impacts from construction and operation on potentially affected land (including Crown lands), schools, hospitals, places of worship, businesses, public reserves (including Sydney Park), recreational users, including property acquisitions/adjustments, access, and amenity; identification of opportunities for community initiatives to deliver benefits for the local community, in consultation with relevant stakeholders, and including consideration of street improvements and community facilities in areas impacts by the project; identification of opportunities to improve pedestrian and cycle access and connectivity, particularly where bridging structures would be required to facilitate crossings, including at Muir Road, Bedwin Road, Enfield Intermodal Terminal rail lines, the Cooks River, Arlington Station or the Dulwich Hill Light rail line, the playground at Amy Street and Sydney Park; and Sydney Trains Network at Bedwin Road; and an assessment of potential impacts on utilities (including communications, electricity, gas, sewerage, water and stormwater, particularly the stormwater treatment facility at Sydney Park) and the relocation of any utilities. 	<p>Refer to Chapter 21 Social and economic and the following sections in Appendix M Socio-economic Impact Assessment:</p> <p>Sections 5.0 and 6.0</p> <p>Sections 6.7 and 8.0</p> <p>Sections 5.4, 6.4 and 8.0</p> <p>Sections 4.4 and 5.5. Also Chapter 11 Hazards and Risks and Appendix L Surface Water and Flooding Report.</p>

Requirements		Section addressed
Consultation	<p>The EIS must include a Community Consultation Framework which identifies relevant stakeholders, procedures for distributing information and receiving/responding to feedback and procedures for resolving stakeholder and community complaints during construction and operation.</p> <p>Key issues that must be addressed in the Framework include, but are not limited to, traffic management (including property access, pedestrian and bicycle access), construction activities (including out of hours work), and noise and vibration mitigation and management.</p> <p>During the preparation of the EIS, you should consult with relevant local, State or Commonwealth government authorities, infrastructure and service providers, special interest groups (including Local Aboriginal Land Councils, Aboriginal stakeholders, and pedestrian and bicycle user groups), affected landowners, businesses and the local community.</p> <p>The EIS must describe the consultation that was carried out, identify the issues raised during this consultation, and explain how these issues have been addressed in the EIS.</p>	Refer to Chapter 6 Consultation and community engagement and Appendix C Community Consultation Framework
Further consultation after 2 years	If an EIS for the project is not lodged within 2 years of the issue date of these Environmental Assessment Requirements, the Applicant must consult further with the Secretary in relation to the preparation of the EIS.	
References	The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, the following attachment contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this proposal.	

Environmental Planning Instruments, Policies, Guidelines & Plans
Transport
Guide to Traffic Generating Projects (RMS)
Road Design Guide (RMS) & relevant Austroads Standards
Austroads Guide to Traffic Management Part 12: Traffic Impacts of Project
External Developments Standard, Technical Note – TN 082: 2016
Noise, Vibration and Blasting
NSW Noise Policy for Industry (EPA)
Interim Construction Noise Guideline (DECCW, 2009)
Assessing Vibration: A Technical Guideline (DEC, 2006)
German Institute for Standardisation DIN 4150-3: Vibration in Buildings – Part 3: Effects on Structures
Technical Basis for Guidelines to Minimise Annoyance Due to Blasting Overpressure and Ground Vibration (ANZECC, 1990)
Air Quality
Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA, 2016)
Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC, 2005)
Technical Framework – Assessment and Management of Odour from Stationary Sources in NSW (DEC, 2006)
Hazards and Risks
Guidelines for limiting exposure to Time-varying Electric, Magnetic and Electromagnetic Fields (ICNIRP)
Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis (DPE)
Multi-Level Risk Assessment (DPE)
Work Health and Safety (WHS) Act 2011
Planning for Bushfire Protection (NSW RFS)
Biodiversity
Biodiversity Assessment Method 2017 (OEH)
Biosecurity Act 2015
Fisheries Management Act 1994
Guidelines for Developments Adjoining Land and Water Managed by DECCW (OEH)
Threatened Species Assessment Guidelines - Assessment of Significance (OEH)
Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (DPI)
Policy and Guidelines for Fish Habitat Conservation and Management (DPI)
NSW State Groundwater Dependent Ecosystem Policy (DPI Water)
Risk Assessment Guidelines for Groundwater Dependent Ecosystems (DPI Water)
Heritage
The Burra Charter (Australia ICOMOS, 2013)
Aboriginal Cultural Heritage Consultation Requirements for Proponents (OEH)
Code of Practice for Archaeological Investigations of Objects in NSW (OEH)
NSW Heritage Manual (OEH)
Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH, 2011)

Environmental Planning Instruments, Policies, Guidelines & Plans
Water
Managing Urban Stormwater: Soils & Construction (Landcom)
Guidelines for Controlled Activities on Waterfront Land (DPI Water)
Water Sharing Plans (DPI Water)
Floodplain Development Manual (OEH)
Floodplain Management Plan (DPI Water)
Guidelines for Watercourse Crossings on Waterfront Land 2018 (DPI Water)
Soils
Acid Sulfate Soils Assessment Guidelines (EPA)
Acid Sulfate Soils Manual (EPA)
Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land (EPA)
Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 (EPA)
Site Investigations for Urban Salinity (OEH)
Landslide Risk Management Concepts and Guidelines (AGS)
Soil and Landscape Issues in Environmental Impact Assessment (OEH)
Australian Soil and Land Survey Field Handbook (CSIRO)
Guidelines for Surveying Soil and Land Resources (CSIRO)
Waste
Waste Classification Guidelines (EPA)
Waste Avoidance and Resource Recovery Act 2001
Environmental Planning Instruments
State Environmental Planning Policy (Infrastructure) 2007
State Environmental Planning Policy (State and Regional Project) 2011
State Environmental Planning Policy No. 19 – Bushland in Urban Areas
State Environmental Planning Policy No. 55 – Remediation of Land
Bankstown Local Environmental Plan 2015
Canterbury Local Environmental Plan 2012
Sydney Local Environmental Plan 2012
Strathfield Local Environmental Plan 2012
Ashfield Local Environmental Plan 2013
Leichhardt Local Environmental Plan 2013
Electromagnetic Interference
ICNIRP Guidelines for limiting exposure to Time-varying Electric, Magnetic and Electromagnetic Fields
Visual Amenity
Australian Standard (AS) 4970 Protection of Trees on Development Sites
Consultation
Community Consultative Committee Guidelines for State Significant Projects (DPE)