Appendix A

Secretary's Environmental Assessment Requirements

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The Secretary of the NSW Department of Planning, Industry and Environment (now referred to as the NSW Department of Planning and Environment) issued the Secretary's Environmental Assessment Requirements (SEARs) for the Project on 23 December 2020.

Table 1 provides a list of the SEARs for the Project and a summary of where they have been addressed in the Environmental Impact Statement (EIS).

Table 1 SEARs compliance table

SEARs	Where addressed in this EIS
General Requirements	
The environmental impact statement (EIS) for the development must comply with the requirements in Schedule 2 of the Environmental Planning and Assessment Regulation 2000 (the Regulation). In particular, the EIS must include: • a stand-alone executive summary; • a full description of the development, including: - details of construction, operation and decommissioning; - a site plan showing all infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process); - a detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development;	A stand-alone executive summary is provided at the start of the EIS. **Chapter 4.0** provides a detailed description of the development. An overview of the Project is provided in **Section 4.2**, including required infrastructure, and servicing arrangements. Further detail regarding the construction and operation of the Project is provided in **Section 4.3** and **Section 4.4**, respectively. Details of Project decommissioning are included in **Section 4.5**. **Figure 4-1** illustrates the proposed layout of the Site. Given the extent of potential constraints a series of maps describing key environmental sensitivities have been provided. These include: • **Figure 8-1**: Landscape features of the Project Area. Subject Land and Assessment Area • **Figure 8-2**: Native vegetation around the Project Area • **Figure 9-1**: Aboriginal sites • **Figure 10-4**: Lithgow LEP Local and State heritage areas near the Project Area • **Figure 11-4**: Proposed stormwater management plan with bioretention basin • **Figure 13-3**: Predicted noise levels associated with construction scenario 2

SEARs	Where addressed in this EIS
	• Figure 9 Bushfire Attack Levels into the Site, located in **Appendix L Bushfire Threat Report**.
• a strategic justification of the development focusing on site selection and the suitability of the proposed site with respect to potential land use conflicts with existing and future surrounding land uses (including other proposed or approved energy facilities, rural residential development and subdivision potential);	A strategic justification of the development focusing on site selection, and the suitability of the Site for the proposed Project, including compatibility with existing landuses is discussed in this Chapter. The compatibility of the Project with existing land uses is discussed in more detail in **Chapter 15.0 Land use.** A detailed LUCRA has been undertaken for the Project and is provided in **Appendix J Land Use Conflict Risk Assessment.** The existing landuses of the Project Area, results of the LUCRA, and the potential for the Project to impact on landuse is discussed in detail in **Chapter 15.0 Land use**.
• an assessment of the likely impacts of the development on the environment, focusing on the specific issues identified below, including: - a description of the existing environment likely to be affected by the development; - an assessment of the likely impacts of all stages of the development, (which is commensurate with the level of impact), including any cumulative impacts of the site and existing, approved or proposed developments in the region and impacts on the site and any road upgrades, 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 the impacts of the development (including draft management plans for specific issues as identified below); and - a description of the measures that would be implemented to monitor and report on the environmental performance of the development;	A description of the existing environment of the Project is provided in **Chapter 2.0**. **Chapters 8.0** to **18.0** provide an assessment of the likely impacts of the development on the environment for each issue. Each chapter includes a description of the existing environment, assessment of impacts during construction and operation, and measures to mitigate and monitor potential environmental issues. Potential cumulative impacts from the Project and proposed developments are identified in **Section 19.6**.

SEARs	Where addressed in this EIS
• a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS; and	**Section 20.2** describes the overarching approach to environmental management during construction and operation of the Project. **Table 20 2** provides a consolidated summary of the proposed management and mitigation measures that would be implemented for the Project, as described throughout this EIS.
• the reasons why the development should be approved having regard to: - relevant matters for consideration under the *Environmental Planning and Assessment Act 1979*, including the objects of the Act and how the principles of ecologically sustainable development have been incorporated in the design, construction and ongoing operations of the development; - the suitability of the site with respect to potential land use conflicts with existing and future surrounding land uses; and - feasible alternatives to the development (and its key components), including the consequences of not carrying out the development. • a detailed consideration of the capability of the project to contribute to the security and reliability of the electricity system in the National Electricity Market, having regard to local system conditions and the Department's guidance on the matter; and • a detailed evaluation of the merits of the project as a whole.	The objects of the EP&A Act are considered in **Section 21.3. Section 20.2.1** details how the principles of ecologically sustainable development have been applied to the Project. **Section 21.4** includes an evaluation of the merits of the Project as a whole, including discussion of how the Project is in the public interest and reasons why it should be approved. An assessment of the compatibility of the development is discussed in **Appendix J Land Use Conflict Risk Assessment** in accordance with the Department of Industry's Land Use Conflict Risk Assessment Guide A detailed consideration the capability of the Project to contribute to the security and reliability of the electricity system in the National Electricity Market is discussed in **Section 5.2**.
The EIS must also be accompanied by a report from a suitably qualified person providing: • a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the Regulation) of the proposal, including details of all assumptions and components from which the CIV calculation is derived; and • certification that the information provided is accurate at the date of preparation.	**Section 4.6** provides the Capital Investment Value (CIV) for the Project.
The development application must be accompanied by the consent in writing of the owner/s of the land (as required in clause 49(1)(b) of the Regulation).	Details regarding landowner consent has been provided in **Section 2.2**.

SEARs	Where addressed in this EIS
Key issues	
The EIS must address the following specific issues:	
• **Biodiversity** – including: - 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), unless BCD and DPIE determine the proposed development is not likely to have any significant impacts on biodiversity values; - 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 listed aquatic threatened species, populations or ecological communities, scheduled under the Fisheries Management Act 1994, and a description of the measures to minimise and rehabilitate impacts; and - if an offset is required, details of the measures proposed to address the offset obligation.	A BDAR was prepared to assess biodiversity values and likely biodiversity impacts of the Project in accordance with **Section 7.9** of the Biodiversity Conservation Act 2016 (NSW), the Biodiversity Assessment Method (BAM). The BDAR is presented in **Appendix C Biodiversity Development Assessment Report**. It applies the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the BAM. This assessment is summarised in **Section 8.4**. There are no aquatic habitat impacts relating to the Fisheries Management Act 1994. The offset requirements (as per the BAM) are outlined in **Section 8.4.5**. The offset obligations of the Project would be met by paying into the BCT Offset Fund.
• **Heritage** – including an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development and consultation with the local Aboriginal community in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents*;	Potential impacts of construction and operation of the Project on Aboriginal heritage are outlined in **Section 9.4**, and **Section 9.4.2** respectively. The consultation process with the local Aboriginal community is summarised in **Section 9.2.1** Further detail is provided in **Appendix C Aboriginal Cultural Heritage Assessment Report** and **Appendix E Addendum Aboriginal Cultural Heritage Assessment Report**. An assessment of potential construction and operation impacts to historic heritage is included in **Section 10.4.1.** An assessment of impacts to Aboriginal heritage is included in **Chapter 9 Aboriginal Heritage**.

SEARs	Where addressed in this EIS
• **Land** – including: - an assessment of the potential impacts of the development on existing land uses on the site and adjacent land, including: ▪ a consideration of agricultural land, flood prone land, Crown lands, mining, quarries, mineral or petroleum rights; ▪ a soil survey to determine the soil characteristics and consider the potential for erosion to occur; and ▪ a cumulative impact assessment of nearby developments - an assessment of the compatibility of the development with existing land uses, during construction, operation and after decommissioning, including: ▪ consideration of the zoning provisions applying to the land, including subdivision; ▪ completion of a Land Use Conflict Risk Assessment in accordance with the Department of Industry's Land Use Conflict Risk Assessment Guide; and ▪ assessment of impact on agricultural resources and agricultural production on the site and in the surrounding lands.	An assessment of the potential impacts to agricultural land is discussed in **Section 15.4.** A soil survey to determine the soil characteristics and consider the potential for erosion to occur is discussed in **Chapter 12 Geology, soils, groundwater, and contamination**. Cumulative impacts are discussed in **Chapter 19 Cumulative impacts**. An assessment of the potential impacts with existing land uses and zoning provisions is covered in **Section 15.4**. An assessment of the compatibility of the development is discussed in **Appendix J Land Use Conflict Risk Assessment** in accordance with the Department of Industry's Land Use Conflict Risk Assessment Guide, An assessment of impact on agricultural resources and agricultural production on the Site and in the surrounding lands is discussed in **Section 15.4**.
• **Visual** – including a detailed assessment of the likely visual impacts (including any glare, reflectivity and night lighting) of all components of the project (including transmission lines, substations and any other ancillary infrastructure) on surrounding residences and key locations, scenic or significant vistas, air traffic and road corridors in the public domain and provide details of measures to mitigate and/or manage potential impacts (including a draft landscaping plan for on-site perimeter planting, with evidence it has been developed in consultation with affected landowners);	An assessment of the likely visual impacts (including any glare, reflectivity and night lighting) of all components of the Project is addressed in **Section 18.2.3**. Details of measures to mitigate and/or manage potential impacts associated with visual impacts is addressed in **Section 18.6**. An outline of the key principals of a future landscape plan has been provided in **Section 18.2.3**.
• **Noise** – including an assessment of the construction noise impacts of the development in accordance with the *Interim Construction Noise Guideline* (ICNG), operational noise impacts in accordance with the *NSW Noise Policy for Industry* (2017), cumulative noise impacts (considering other developments in the area), and	The Noise and Vibration Assessment (**Appendix H**) was undertaken in accordance with the guidelines identified in the SEARs.

SEARs	Where addressed in this EIS
a draft noise management plan if the assessment shows construction noise is likely to exceed applicable criteria;	Construction noise and vibration impacts are discussed in **Section 13.4.1**. Operational noise and vibration impacts are discussed in **Section 14.4.2**. The potential for cumulative noise impacts is considered in **Chapter 19 Cumulative impacts.** Management of noise and vibration impacts is discussed in **Section 14.5**.
• **Transport** – including: - an assessment of the peak and average traffic generation, including over-dimensional vehicles and construction worker transportation; - an assessment of the likely transport impacts to the site access route (including, but not limited to Brays Lane and Castlereagh Highway) site access point(s), any Crown land, particularly in relation to the capacity and condition of the roads, road safety and intersection performance; - a cumulative impact assessment of traffic from nearby developments; - and provide details of measures to mitigate and / or manage potential impacts including a schedule of all required road upgrades (including resulting from heavy vehicle and over mass / over dimensional traffic haulage routes), road maintenance contributions, and any other traffic control measures, developed in consultation with the relevant road authority;	Construction traffic impacts are assessed in **Section 14.4.1** and operational traffic impacts are assessed in **Section 14.4.2**. Potential impacts to the Site access routes, secondary access points, road capacity and road safety are assessed in **Section 14.4.1** and **Section 14.4.2**. The potential for cumulative traffic impacts from nearby developments is assessed in **Chapter 19 Cumulative impacts**. Management and mitigation measures are included in **Section 14.6**.
• **Water** – including: - an assessment of the likely impacts of the development (including flooding) on surface water and groundwater resources (including watercourses traversing the site and surrounding watercourses, drainage channels, wetlands, riparian land, farm dams, groundwater dependent ecosystems and acid sulfate soils), related infrastructure, adjacent licensed water users and basic landholder rights, and measures proposed to monitor, reduce and mitigate these impacts; - details of water requirements and supply arrangements for construction and operation; and	**Section 11.4.1** identifies the potential impacts of the Project on surface water considerations during construction and **Section 11.4.2** identifies the potential impacts during operation (including flooding, watercourses, drainage channels, wetlands, riparian land, farm dams). **Section 11.5** outlines the management and mitigation measures proposed to manage these impacts. Potential impacts of the Project to groundwater resources as well as potential impacts from acid sulphate soils have been discussed in **Chapter 12 Geology, soils, contamination and groundwater**.

SEARs	Where addressed in this EIS
- a description of the erosion and sediment control measures that would be implemented to mitigate any impacts in accordance with Managing Urban Stormwater: Soils & Construction (Landcom 2004);	Potential impacts of the Project to groundwater dependent ecosystems have been discussed in **Chapter 8 Biodiversity**. Potential impacts of the Project to groundwater resources and bore infrastructure (including adjacent licensed water users and basic landholder rights) have been discussed in **Section 11.4.1** and **Section 11.4.2**. **Section 11.4.1** details the water use and supply arrangement during construction and **Section 11.4.2** details the water use and supply arrangements during operation. **Section 11.5** outlines the management and mitigation measures relating to surface water, flooding and water use and details the erosion and sediment control measures proposed for the Project. Management and mitigation measures relating to erosion and sediment control are included in **Section 11.5** and **Section 12.5**. This includes committing to the preparation of a soil and water management plan in accordance with the Managing Urban Stormwater: Soils & Construction (Landcom, 2004) (referred to as the 'Blue Book').
• **Hazards** – including: - an assessment of potential hazards and risks including but not limited to assessment of bushfire risk against the RFS Planning for Bushfire Protection 2019, electromagnetic fields or the proposed grid connection infrastructure against the International Commission on Non-Ionizing Radiation Protection (ICNIRP) Guidelines for limiting exposure to Time-varying Electric, Magnetic and Electromagnetic Fields; and - a Preliminary Hazard Analysis prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6 – Guideline for Hazard Analysis (DoP, 2011) and Multi-Level Risk Assessment (DoP, 2011);	The bushfire risk assessment is detailed in **Chapter 17 Bushfire.** The electromagnetic fields have been discussed in **Section 16.4.2** of this chapter. The Preliminary Hazard Analysis is available in **Appendix K Preliminary Hazard Analysis** and summarised in this chapter.

SEARs	Where addressed in this EIS
• **Socio-Economic** – including an assessment of the likely impacts on the local community, demands on Council infrastructure and a consideration of the construction workforce accommodation; and	**Section 18.3.3** assess the likely impacts on the local community during construction and operation. **Section 18.3.2** outlines the demands upon Council infrastructure whilst **Section 18.3.3** assess the likely impacts on the Council infrastructure. Accommodation considerations are discussed in **Section 18.3.2**.
• **Waste** – identify, quantify and classify the likely waste stream to be generated during construction and operation, and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.	**Section 18.4.4** identifies the potential waste impacts of the Project. **Table 17 15** identifies the potential construction waste types and indicative quantities, the NSW EPA Waste Classification and the proposed handling, treatment and/or disposal methods. Potential waste sources during operation are discussed in **Section 18.4**. Given that waste generation during operation would be minimal, waste sources have not been quantified. Management and mitigation measures to manage, reuse, recycle and safely dispose of waste are included in **Section 18.6**.
Consultation	
During the preparation of the EIS, you should consult with relevant local, State or Commonwealth Government authorities, infrastructure and service providers, community groups, affected landowners, exploration licence holders and mineral title holders. In particular, you must undertake detailed consultation with affected landowners surrounding the development and Lithgow City Council. The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues.	Details regarding consultation with Government agencies and community stakeholders are outlined in **Section 6.4.1** and **6.4.2**, respectively. A detailed description of the consultation process, the issues raised and where the issues have been addressed within the EIS is outlined in **Section 6.4.3**.

SEARs	Where addressed in this EIS
Where amendments have not been made to address an issue, a short explanation should be provided.	
Further consultation after two years	
If you do not lodge a Development Application and EIS for the development within 2 years of the issue date of these SEARs, you must consult further with the Planning Secretary in relation to the preparation of the EIS.	Not applicable as this EIS has been prepared within two years of the issue date of the SEARS. The Development application would be lodged within two years of the SEARs being issued.
Legislation, policies and guidelines	
A list of some of the legislation, policies and guidelines that may be relevant to the assessment of the project can be found at: • https://www.planningportal.nsw.gov.au/major-projects/assessments/policies-and-guidelines; and • http://www.environment.gov.au/epbc/publications#assessments	Key legislation, policies and guidelines have been considered throughout the preparation of the EIS. An overview of relevant legislation and how it has been considered in the EIS is provided in **Section 5.3**.