



AGL Energy Limited  
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# Broken Hill Battery Energy Storage System Project

Environmental Impact Statement  
Appendices

# Appendix A

## Secretary's Environmental Assessment Requirements

## Appendix A – Secretary’s Environmental Assessment Requirements

The Secretary of the NSW Department of Planning, Industry and Environment issued Secretary’s Environmental Assessment Requirements (SEARs) for the Project on 23 December 2020. **Table 1** includes the SEARs and an overview of how they have been addressed in the Environmental Impact Statement (EIS).

**Table 1: SEARs compliance table**

SEARs	Where addressed in this EIS
<b>General Requirements</b>	
<p>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:</p> <ul style="list-style-type: none"> <li>• a stand-alone executive summary;</li> <li>• a full description of the development, including: <ul style="list-style-type: none"> <li>- details of construction, operation and decommissioning;</li> <li>- 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);</li> <li>- a detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development;</li> </ul> </li> </ul>	<p>A stand-alone executive summary is provided at the start of the EIS.</p> <p><b>Chapter 4</b> provides a detailed description of the development. An overview of the Project is provided in <b>Section 4.2</b>, including required infrastructure, and servicing arrangements. Further detail regarding the construction and operation of the Project is provided in <b>Section 4.3</b> and <b>Section 4.4</b>, respectively. Details of Project decommissioning are included in <b>Section 4.4</b>.</p> <p><b>Figure 4-1</b> illustrates the proposed layout of the Project. <b>Figure 4-2</b> depicts the proposed access, circulation and transmission connections and the surrounding services respectively.</p> <p>A detailed constraints map has been prepared and provided as <b>Figure 3-1</b>.</p>
<ul style="list-style-type: none"> <li>• 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 existing land use, residential development, Crown lands adjacent to the site and neighbouring industrial developments)</li> </ul>	<p>The strategic justification for the Project is detailed in <b>Section 3.2</b>. An overall justification for the Project is also provided in <b>Section 19.5</b>.</p> <p>The suitability of the Site with respect to land use is considered in <b>Section 3.4</b> and <b>Section 3.5</b>.</p>

SEARs	Where addressed in this EIS
<ul style="list-style-type: none"> <li>• an assessment of the likely impacts of the development on the environment, focusing on the specific issues identified below, including:               <ul style="list-style-type: none"> <li>- a description of the existing environment likely to be affected by the development;</li> <li>- 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 or proposed developments in the region, taking into consideration any relevant legislation, environmental planning instruments, guidelines, policies, plans and industry codes of practice;</li> <li>- 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</li> <li>- a description of the measures that would be implemented to monitor and report on the environmental performance of the development;</li> </ul> </li> </ul>	<p>A description of the existing environment of the Project is provided in <b>Chapter 2.0 Project Area, context and background</b>.</p> <p><b>Chapters 8 to 17</b> 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.</p> <p>Potential cumulative impacts of the Project and existing or proposed developments in the region are considered in <b>Section 17.6</b>.</p>
<ul style="list-style-type: none"> <li>• a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS; and</li> </ul>	<p>A consolidated summary of all the proposed environmental management and monitoring measures is provided in <b>Chapter 18 Management and mitigation measures</b>.</p>
<ul style="list-style-type: none"> <li>• the reasons why the development should be approved having regard to:               <ul style="list-style-type: none"> <li>- 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;</li> <li>- the suitability of the site with respect to potential land use conflicts with existing and future surrounding land uses; and</li> <li>- feasible alternatives to the development (and its key components), including the consequences of not carrying out the development.</li> </ul> </li> <li>• 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</li> </ul>	<p>The relevant matters for consideration, as contained under section 4.15 of the EP&amp;A Act have been addressed within <b>Section 5.3</b>. Specific reference to the relevant matters for consideration are summarised in <b>Table 5-6</b>.</p> <p>The objects of the EP&amp;A Act are considered in <b>Section 19.4</b>. <b>Section 19.3</b> details how the principles of ecologically sustainable development have been applied to incorporated in the design, construction and operation of the Project.</p> <p>The suitability of the Site and Project Area for the Project is detailed in <b>Section 3.4</b> and <b>Section 3.5</b>, including consideration of potential land use conflicts.</p> <p>Feasible alternatives for the Project are assessed in <b>Section 3.3</b>. This includes a 'do nothing' option (<b>Section 3.3.1</b>) which</p>

SEARs	Where addressed in this EIS
<ul style="list-style-type: none"> <li>a detailed evaluation of the merits of the project as a whole.</li> </ul>	<p>considers the consequences of not carrying out the development.</p> <p>Consideration of the capability of the Project to contribute to the security and reliability of the electricity system in the National Electricity Market is provided in <b>Section 3.2</b>, which details the need for the Project.</p> <p><b>Section 19.5</b> includes an evaluation of the merits of the Project as a whole.</p>
<p>The EIS must also be accompanied by a report from a suitably qualified person providing:</p> <ul style="list-style-type: none"> <li>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</li> <li>certification that the information provided is accurate at the date of preparation.</li> </ul>	<p>A CIV report which meets these requirements has been prepared for the Project and provided to the Department of Planning, Industry and Environment separately by AGL.</p> <p>The CIV of the Project is outlined in <b>Section 4.2.6</b>.</p>
<p>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).</p>	<p>Consent of the landowner of the Site has been provided to the Department of Planning, Industry and Environment separately by AGL.</p>
Key issues	
<p>The EIS must address the following specific issues:</p>	<p>-</p>
<ul style="list-style-type: none"> <li><b>Biodiversity</b> – including: <ul style="list-style-type: none"> <li>an assessment of the biodiversity values and the likely biodiversity impacts of the project in accordance with Section 7.9 of the <i>Biodiversity Conservation Act 2016</i> (NSW), the Biodiversity Assessment Method (BAM) and documented in a Biodiversity Development Assessment Report (BDAR), unless BCD and DPIE determine that the proposed development is not likely to have any significant impacts on biodiversity values;</li> <li>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;</li> </ul> </li> </ul>	<p>A BDAR has been prepared for the Project and is provided as <b>Appendix B Biodiversity Development Assessment Report</b>, with relevant aspects summarised in <b>Chapter 8 Biodiversity</b>.</p> <p><b>Section 8.3</b> of the EIS identifies the existing environment of the Project Area, including the potential species and their likelihood of occurrence within the Project Area.</p> <p><b>Section 8.4</b> of the EIS assesses the impacts of the Project during construction and operation in line with the avoid, minimise and offset framework along with the direct and indirect impacts of the Project in accordance with the BAM.</p>

SEARs	Where addressed in this EIS
	The offset requirements (as per the BAM) are outlined in <b>Section 8.4.5</b> .
<ul style="list-style-type: none"> <li>• <b>Heritage</b> – including an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development, including consultation with the local Aboriginal community in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents;</li> </ul>	<p>Potential Aboriginal heritage impacts of the Project are assessed in <b>Appendix C Aboriginal Cultural Heritage Assessment Report</b> and in <b>Section 9.4</b> of this EIS.</p> <p>Consultation for the assessment was completed in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents. The consultation process is detailed in <b>Appendix C Aboriginal Cultural Heritage Assessment Report</b> and summarised in <b>Section 9.2.1</b> of this EIS.</p> <p>An assessment of impacts to historic heritage (cultural and archaeological) is included in <b>Section 10.4</b>.</p>
<ul style="list-style-type: none"> <li>• <b>Land</b> – including:               <ul style="list-style-type: none"> <li>- an assessment of the potential impacts of the development on existing land uses on the site and adjacent land;</li> <li>- an assessment of the compatibility of the development with existing land uses, during construction, operation and after decommissioning</li> </ul> </li> </ul>	<p>An assessment of potential land use impacts of the Project is provided in <b>Section 17.3.3</b>.</p> <p>An assessment of the compatibility of the development with existing land uses is provided in <b>Chapter 3 Project development and alternatives. Section 3.5</b> provides a justification for selection of the Site, including consideration of the compatibility of the development with existing land uses</p>
<ul style="list-style-type: none"> <li>• <b>Visual</b> – including an assessment of the likely visual impacts of the development (including any night lighting) on surrounding residences, scenic or significant vistas;</li> </ul>	An assessment of the potential visual impacts of the Project is provided in <b>Section 17.2.3</b> .

SEARs	Where addressed in this EIS
<ul style="list-style-type: none"> <li>• <b>Noise</b> – including an assessment of the construction noise impacts of the development in accordance with the <i>Interim Construction Noise Guideline</i> (ICNG), operational noise impacts in accordance with the <i>NSW Noise Policy for Industry</i> (2017), cumulative noise impacts (considering other developments in the area), and a draft noise management plan if the assessment shows construction noise is likely to exceed applicable criteria;</li> </ul>	<p>A Construction and Operational Noise and Vibration Assessment has been undertaken for the Project and is provided in <b>Appendix E Noise and Vibration Assessment</b>, with relevant aspects summarised in <b>Chapter 12 Noise and Vibration</b>. The assessment was undertaken in accordance with the guidelines identified in the SEARs.</p> <p>Construction noise and vibration impacts are discussed in <b>Section 12.4.1</b>.</p> <p>Operational noise and vibration impacts are discussed in <b>Section 12.4.2</b>.</p> <p>Potential cumulative noise impacts of the Project and other developments within the vicinity are considered in <b>Section 17.6.5</b>.</p> <p>The assessment indicates that only marginal exceedances of criteria are anticipated to occur at non-residential receivers during construction. These would be manageable with the implementation of standard mitigation measures (refer to <b>Section 12.5</b>). Exceedances are not predicted at residential receivers. As such, a draft noise management plan has not been included in the EIS. A commitment to the preparation of a Construction Noise and Vibration Management Plan has been included in <b>Section 12.5</b>.</p>
<ul style="list-style-type: none"> <li>• <b>Transport</b> – including: <ul style="list-style-type: none"> <li>- an assessment of the peak and average traffic generation, including over-dimensional vehicles, construction worker transportation and transport of materials by rail;</li> <li>- an assessment of the likely transport impacts to the site access route (including Pinnacles Road, Pinnacles Place and any temporary access proposed from the adjacent Crown land) and site access point, particularly in relation to the capacity and condition of the roads;</li> <li>- a cumulative impact assessment of traffic from nearby developments;</li> </ul> </li> </ul>	<p>An assessment of traffic and transport impacts has been undertaken for the Project and is provided in <b>Appendix F Traffic and Access Assessment</b>, with relevant aspects summarised in <b>Chapter 13 Transport and access</b>.</p> <p>Construction traffic impacts are assessed in <b>Section 13.4.1</b> and operational traffic impacts are assessed in <b>Section 13.4.2</b>. Transport of material by rail is not proposed and therefore has not been considered in the assessment.</p>

SEARs	Where addressed in this EIS
<ul style="list-style-type: none"> <li>- a description of any proposed road upgrades (including temporary roads) developed in consultation with the relevant road and rail authorities (if required); and</li> <li>- a description of the measures that would be implemented to mitigate any transport impacts during construction;</li> </ul>	<p>Potential impacts to the site access route, secondary access points, road capacity and condition of the roads are assessed in <b>Section 13.4.1</b>.</p> <p>Potential cumulative transport impacts of the Project and other developments within the vicinity are considered in <b>Section 17.6.5</b>.</p> <p>Construction vehicle access arrangements are discussed in <b>Section 4.3.5</b> and <b>Section 13.4.1</b>. Road upgrades or the construction of temporary roads are not required for the Project as existing roads would be used to access the Project Area.</p> <p>Management and mitigation measures for transport impacts are included in <b>Section 13.5</b>.</p>
<ul style="list-style-type: none"> <li>• <b>Water</b> – including: <ul style="list-style-type: none"> <li>- an assessment of the likely impacts of the development (including flooding) on surface water and groundwater resources and measures proposed to monitor, reduce and mitigate these impacts;</li> <li>- details of water requirements and supply arrangements for construction and operation; and</li> <li>- a description of the erosion and sediment control measures that would be implemented to mitigate any impacts in accordance with <i>Managing Urban Stormwater: Soils &amp; Construction</i> (Landcom 2004);</li> </ul> </li> </ul>	<p>A surface water, flooding and water use assessment has been undertaken for the Project and is provided as <b>Appendix G Surface water assessment</b>, with relevant aspects summarised in <b>Chapter 14 Surface water, flooding and water use</b>.</p> <p><b>Section 14.4.1</b> identifies the likely impacts of the Project during construction and <b>Section 14.4.2</b> identifies the potential impacts during operation on surface water (including flooding). Potential impacts of the Project to groundwater resources during construction and operation are assessed in <b>Chapter 11.0 Soils, groundwater and contamination</b> in <b>Section 11.4.1</b> and <b>11.4.2</b>, respectively.</p> <p><b>Section 14.4.1</b> and <b>Section 14.4.2</b> details the water use and supply arrangements during construction and operation, respectively.</p> <p><b>Section 14.5</b> 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.</p>



SEARs	Where addressed in this EIS
	<p>Management and mitigation measures relating to erosion and sediment control are included in <b>Section 14.5</b> and <b>Section 11.5</b>. This includes the preparation of a soil and water management plan in accordance with the <i>Managing Urban Stormwater: Soils &amp; Construction</i> (Landcom, 2004) (referred to as the 'Blue Book').</p>
<ul style="list-style-type: none"> <li>• <b>Hazards and Risks</b> – including: <ul style="list-style-type: none"> <li>- a Preliminary Hazard Analysis (PHA) must be prepared in accordance with <i>State Environmental Planning Policy No. 33 – Hazardous and Offensive Development</i> (SEPP 33), the <i>Department's Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis' and Multi-level Risk Assessment</i> (HIPAP No. 6)</li> <li>- an assessment of potential hazards and risks including but not limited to bushfires, land contamination, spontaneous ignition, electromagnetic fields or the proposed grid connection infrastructure against the International Commission on Non-ionizing Radiation Protection (ICNIRP) <i>Guidelines for limiting exposure to Time-varying Electric, Magnetic and Electromagnetic Fields</i>;</li> </ul> </li> </ul>	<p>A PHA has been prepared in accordance with State Environmental Planning Policy No 33—Hazardous and Offensive Development (SEPP 33) and Hazardous Industry Planning Advisory Paper No. 6 (HIPAP No 6). The PHA is provided as <b>Appendix I Preliminary Hazard Analysis</b>, with relevant aspects summarised in <b>Chapter 16 Hazards and risk</b>.</p> <p>The PHA has captured an assessment of potential hazards and risk associated with the Project, including but not limited to:</p> <ul style="list-style-type: none"> <li>• Bushfires and spontaneous ignition (refer to <b>Section 16.4.1</b> and <b>16.4.3</b>)</li> <li>• Loss of containment (refer to <b>Section 16.4.2</b>)</li> <li>• An assessment of exposure to electromagnetic fields against the ICNIRP guidelines (refer to <b>Section 16.4.4</b>).</li> </ul> <p>Bushfire risk associated with the Project is assessed in <b>Appendix H Bushfire Threat Assessment</b> and <b>Chapter 15 Bushfire</b>. An overview of potential impacts is provided in <b>Section 15.4</b>.</p> <p>Land contamination risk associated with the Project is assessed in <b>Appendix D Detailed Site Assessment</b> and <b>Chapter 11 Soils, contamination and groundwater</b>. Potential sources of contamination within the Site and receptors are identified in <b>Section 11.3.4</b>.</p> <p>Potential contamination impacts during construction and operation are detailed in <b>Section 11.4</b>.</p>

SEARs	Where addressed in this EIS
<ul style="list-style-type: none"> <li><b>Socio-Economic</b> – including an assessment of the likely impacts on the local community, demands on Council infrastructure and a consideration of the construction workforce accommodation; and</li> </ul>	<p><b>Section 17.3</b> includes an assessment of the likely impacts on the community, demands on Council infrastructure and consideration of the construction workforce accommodation. Consultation with Council regarding demands on their infrastructure is detailed in <b>Section 13.5</b> (in relation to the local transport network) and <b>Section 14.5</b> (in relation to water infrastructure).</p> <p>Potential economic benefits and costs are also detailed in <b>Section 17.3.3</b>.</p>
<ul style="list-style-type: none"> <li><b>Waste</b> – 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.</li> </ul>	<p><b>Section 17.4.4</b> identifies the potential waste impacts of the Project. <b>Table 17-8</b> identifies the potential construction waste types and indicative quantities, the NSW EPA Waste Classification and the proposed handling, treatment and/or disposal methods.</p> <p>Potential waste sources during operation are discussed in <b>Section 17.4</b>. Given that waste generation during operation would be minimal, waste sources have not been quantified.</p> <p>Management and mitigation measures to manage, reuse, recycle and safely dispose of waste are included in <b>Section 17.7</b>.</p>
Legislation, policies and guidelines	
<p>A list of some of the legislation, policies and guidelines that may be relevant to the assessment of the project can be found at:</p> <ul style="list-style-type: none"> <li><a href="https://www.planningportal.nsw.gov.au/major-projects/assessments/policies-and-guidelines">https://www.planningportal.nsw.gov.au/major-projects/assessments/policies-and-guidelines</a>; and</li> <li><a href="http://www.environment.gov.au/epbc/publications#assessments">http://www.environment.gov.au/epbc/publications#assessments</a></li> </ul>	<p>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 <b>Section 5.3</b>.</p>

SEARs	Where addressed in this EIS
<b>Consultation</b>	
<p>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.</p> <p>In particular, you must undertake detailed consultation with affected landowners surrounding the development, Broken Hill City Council, Crown lands and NSW Aboriginal Land Council.</p> <p>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. Where amendments have not been made to address an issue, a short explanation should be provided.</p>	<p><b>Chapter 6</b> provides an overview of the consultation undertaken for the Project. Details regarding consultation with the identified Government agencies and non-Government stakeholders are outlined in <b>Section 6.4</b>.</p> <p>A detailed description of the consultation process, the issues raised and where the issues have been addressed within the EIS is outlined in <b>Section 6.4</b>.</p>
<b>Further consultation after two years</b>	
<p>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.</p>	<p>Not applicable as this EIS has been prepared within two years of the issue date of the SEARS.</p>