ENVIRONMENTAL IMPACT	MITIGATION MEASURES	WHERE ADDRESSED
The development generally	Construct, operate and maintain the development generally in accordance with the 'Project Description'	Section 3
Biodiversity	Mitigation measures are recommended in accordance with Section 7 of the Biodiversity Development Assessment Report (BDAR) and include the following: • Techniques, timing, frequency and responsibility. • Identification of measures for which there is risk of failure. • Evaluation of the risk and consequence of any residual impacts. • Documentation of any adaptive management strategy proposed. Identification of measures for mitigating impacts related to: • Displacement of resident fauna. • Indirect impacts on native vegetation and habitat. • Mitigating prescribed biodiversity impacts. • Details of the adaptive management strategy proposed to monitor and respond to impacts on biodiversity values that are uncertain.	Section 6.1 Appendix H
Aboriginal Cultural Heritage	*Heritage induction* Heritage inductions and the inclusion of an unexpected finds procedure should be prepared. These should be provided to all site workers and contractors in order to prevent any unintentional harm to unexpected finds and Aboriginal sites located outside of the study area. This includes the following items: • Relevant legislation. • Location of identified Aboriginal heritage sites, areas of archaeological potential, and areas of archaeological sensitivity. • Basic identification skills for Aboriginal and non-Aboriginal artefacts and human remains.	Section 6.2 Appendix I Appendix K

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	• Procedure to follow in the event of an unexpected heritage item find during construction works. • Procedure to follow in the event of discovery of human remains during construction works. • Penalties and non-compliance. *Continued consultation with the RAPs* As per the consultation requirements it is recommended that the proponent provides a copy of this report to the RAPs. It is also recommended that the proponent should continue to inform RAPs about the management of Aboriginal cultural heritage sites within the study area throughout the life of the project. *Discovery of unanticipated Aboriginal objects* All Aboriginal objects and Places are protected under the NPW Act. It is an offence to disturb an Aboriginal site without a consent permit issued by Heritage NSW. Should any unanticipated Aboriginal objects be encountered during works associated with this proposal, works must cease in the vicinity and the find should not be moved until assessed by a qualified archaeologist. If the find is determined to be an Aboriginal object the archaeologist will provide further recommendations. These may include notifying Heritage NSW and Aboriginal stakeholders. *Discovery of unanticipated historical relics* Relics are historical archaeological resources of local or State significance and are protected in NSW under the Heritage Act. Relics cannot be disturbed except with a permit or exception notification. Should unanticipated relics be discovered during the course of the project, work in the vicinity must cease and an archaeologist contacted to make a preliminary assessment of the find. The Heritage Council will require notification if the find is assessed as a relic. *Discovery of human remains* If any suspected human remains are discovered during any activity you must: 1. Immediately cease all work at that location and not further move or disturb the remains.	

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	2. Notify the NSW Police and Heritage NSW Environmental Line on 131 555 as soon as practicable and provide details of the remains and their location. 3. Not recommence work at that location unless authorised in writing by Heritage NSW.	
Heritage	*The proposed works may proceed with caution* There are no listed items, or items of heritage significance, within or adjacent to the study area. Works can proceed in the study area with caution as it has been assessed as possessing low archaeological potential. Should unexpected archaeological remains be uncovered during the course of the proposed works, the below mitigation measure should be implemented. *Discovery of unanticipated historical relics* Relics are historical archaeological resources of local or State significance and are protected in NSW under the Heritage Act. Relics cannot be disturbed except with a permit or exception/exemption notification. Should unanticipated historical archaeology be discovered during the course of the project, work in the vicinity must cease and an archaeologist contacted to make a preliminary assessment of the find. Heritage NSW will require notification if the find is assessed as a relic.	Section 6.3 Appendix J Appendix K
Land Use Conflict		
Visual Impact	The following management and mitigation measures are recommended to address visual impact: • Avoid night sky impacts, • Reduce visibility and contrast of the Project in the landscape, • Minimise impact to existing landscape character and retain existing screening vegetation, and • Enhance screening of the project. Each of the above are discussed in further detail in the relevant sections of the EIS and LCVIA.	Section 6.5 Appendix N
Noise and Vibration	Operational Noise Mitigation	Section 6.6

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	• Installation of noise control measures, including the permitter noise barriers to meet the relevant noise criteria. • Installation of inverter noise control package provided by the manufacturer of the batteries. • In the event alternative equipment is selected, additional noise modelling should be conducted for any finalised Project design and equipment selections to establish continued compliance with Noise Policy for Industry criteria and determine noise control measures specific to that design.	Appendix O

	<u>Construction Noise and Vibration Mitigation</u>
	• Preparation of a detailed Construction Noise and Vibration Management Plan (CNVMP) once a more detailed schedule of equipment and plant items, construction method and work areas are known. The CNVMP should include site and process specific noise management work practices designed to mitigate the impact of construction noise activities.
	• Consultation with the community and affected residents identified in Table 14 of the NVIA should be undertaken during the preparation of the CNVMP.
	• Inclusion of the following practices from the Interim Construction Noise Guideline during the preparation of the CNVMP:
	  ○ Universal work practices;
	  ○ Consultation and notification;
	  ○ Plant and equipment;
	  ○ On-site controls;
	  ○ Work scheduling; and
	  ○ Transmission path and at-receiver considerations.
	• Undertake works during the hours of construction outlined in the Interim Construction Noise Guideline and Section 3.1 of the NVIA.	

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	• Arrange OSOM deliveries to be undertaken during the daytime where possible. Where this is not possible, residents close to the Project should be notified.	
Traffic, Transport and Accessibility	The TIA provides management and mitigation measures related to the following: • Permits/ Consent/ Licences • Haulage • Access point requirements • Consultation • Traffic control plans • Delays to traffic • Safety of road users and construction staff • Driver's code of conduct • School Bus Routes Each of the above are discussed in detail in the relevant sections of the EIS and TIA.	Section 6.7 Appendix P
Ecologically Sustainable Development	No mitigation measures are identified for ecologically sustainable development.	N/A
Ground and Water Conditions	There are no specific mitigation measures with regard to ground and water conditions, with each of these addressed under separate items in the SEARs, EIS and consultant inputs. The development is suitable from a ground and water conditions perspective subject to compliance and implementation of the requirements and recommendations of the following: • Civil Engineering Plans, prepared by Sky Engineering and Project Management, • Water Management Report, prepared by Northrop Consulting Engineers, and • Preliminary Site Investigation, prepared by ENV Solutions.	Section 6.9 Section 6.10.4 Appendix Q Appendix T
Bushfire Risk	*Asset Protection Zones* • Section 8.3.5 'Wind and solar farms' of PBP requires a minimum APZ of 10m.	Section 6.8 Appendix S

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	• The proposed development provides an APZ of 37 metres to the north, 26 metres to the east, 10 metres to the south and 22 metres to the west.
	• The APZs meet the minimum required APZ in accordance with PBP.
	Access
	• Access to the subject property is available from Calala Lane to the north. The proposed layout provides an access track around the battery enclosures.
	• The proposed access track is able to satisfy the requirement of section 8.3.5 of PBP which requires road access to the site.
	• Attending fire appliances also have direct and comprehensive vehicle access to the identified hazards via the proposed access track.
	• The proposed access provisions are considered adequate to provide safe operational access for emergency service personnel in suppressing a grassfire, while persons are accessing or egressing the area.
	Services – water, electricity and gas
	• The proposal includes two steel water tanks with a capacity of 100,000 Litres each.
	• These tanks will be fitted with a 65 mm storz fitting.
	• The proposed water supply is considered adequate for the replenishment of attending fire services.
	• Recommendations will be included to ensure compliance with any new electricity and gas services.
	Bushfire Emergency Management and Operations Plan
	• Preparation of a Bushfire Emergency Management and Operations Plan including the following:
	  ○ detailed measures to prevent or mitigate fires igniting;
	  ○ work that should not be carried out during total fire bans;	

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<table>
<tr><td></td><td>

availability of fire-suppression equipment, access and water;
storage and maintenance of fuels and other flammable materials;
notification of the local NSW RFS Fire Control Centre for any works that have the potential to ignite surrounding vegetation, proposed to be carried out during a bush-fire fire danger period to ensure weather conditions are appropriate; and
appropriate bush fire emergency management planning.

</td><td></td></tr>
<tr><td>Water Management</td><td>Implementation of the requirements outlined in the Water Management Report by Northrop will satisfy the relevant requirements related to water management for the site and proposed development. The following management and mitigation measures are discussed in further detail in Section 6.9.3 of the EIS and Section 4 of the Water Management Report:

Runoff controls,
Flooding and riparian,
Dust suppression, and
Sewage management.

</td><td>Section 6.9
Appendix Q</td></tr>
<tr><td>Flooding Risk</td><td>Implementation of the requirements outlined in the Water Management Report by Northrop will satisfy the relevant requirements related to water management for the site and proposed development.</td><td>Section 6.9
Appendix Q</td></tr>
<tr><td>Hazards and Risks</td><td>The identified hazards and risks associated with the project are summarised in the table below:
<table>
<tr><th>HAZARD</th><th>MITIGATION MEASURE</th></tr>
<tr><td>Electrical</td><td>Design and Compliance to Standards, Decisive Voltage Classification (DVC) and Signage, Trained Personnel and Contractors, Site Induction and Training, Fault Detection and Safety Measures, Earthing Study and Implementation, Physical Barriers and Emergency Response and Personal Protective Equipment (PPE) and Rescue Kits</td></tr>
<tr><td>Arc flash (energy)</td><td>Design and Compliance to Standards, Warning Signs, Trained Personnel and Contractors, Site Induction and Training, Preventative Maintenance, BESS Configurations and Fault Detection, Fire and Explosion Protection</td></tr>
</table>
</td><td>Section 6.10
Appendix R
Appendix T</td></tr>
</table>

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		System, Emergency Response and Personal Protective Equipment (PPE) and Rescue Kits	
	Fire	Design and Compliance to Standards, Procurement from Reputable Suppliers, Trained Personnel and Contractors, Compliance with TransGrid's Requirements, BESS Configuration and Clearance, Preventative Maintenance, Fault Detection and Shut-off Function, Fire and Explosion Protection System and Fire Management and Emergency Response Plans.	
	Chemical	Design and Compliance to Standards, Procurement from Reputable Suppliers, Trained Personnel and Contractors, Encasement of Battery Cells and Modules, Spill Cleanup Protocols, BESS Configuration and Clearance, Fault Detection and Shut-off Function, Fire and Explosion Protection System and Fire Management and Emergency Response Plans.	
	Explosive gas	Design and Compliance to Standards, Procurement from Reputable Suppliers, Independent Owner's Engineer Endorsement, Trained Personnel and Contractors, BESS Configuration, Ventilation, Fault Detection and Shut-off Function, Fire and Explosion Protection System and Fire Management and Emergency Response Plans.	
	Reaction	Design and Compliance to Standards, Procurement from Reputable Suppliers, Independent Owner's Engineer Endorsement, Trained Personnel and Contractors, BESS Configuration and Clearance, Fault Detection and Shut-off Function, Fire and Explosion Protection System and Fire Management and Emergency Response Plans.	
	EMF	Location, Orientation, Conductor Spacing, Balancing Phases and Minimising Residual Current, Incidental shielding, Design and Compliance to Standards, Short Duration Exposure, Warning Signs, and Compliance with ICNIRP Occupational Exposure Limits.	
	External factors (water ingress)	Location, Use of IP 55 Rated Enclosures, Compliance with Standards for HV Connection Asset, Drainage System, Preventative Maintenance, BESS Configuration and Clearance, Fault Detection and Shut-off Function, Fire and Explosion Protection System and Fire Management and Emergency Response Plans.	

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	<table><tr><td>External factors (vandalism)</td><td>Location, Secure Fencing and Area Protection, Warning Signs Deployment and Security Cameras Installation.</td></tr><tr><td>External factors (lightning strikes)</td><td>Lightning Protection Mast and Surge Protection Devices, Earthing Compliance, BESS Configuration and Clearance, Fault Detection and Shut-off Function, Fire and Explosion Protection System and Fire Management and Emergency Response Plans.</td></tr></table> A detailed breakdown of each of the above mitigation measures is provided within the EIS and the PHA.	
Contamination and Remediation	The mitigation measure for contamination is as follows: • As part of the preparation of a Construction Environmental Management Plan, an Unexpected Finds Protocol (UFP) should be prepared in the event that unexpected finds are identified at the site during excavation works. The contamination unexpected finds protocol would define processes and responsibilities in the event that unanticipated contamination is identified. It is also intended to provide guidance to workers at the site in recognising potentially unacceptable material including: ○ Visually contaminated or odorous soil and/or groundwater ○ Asbestos-containing material (ACMs) buried infrastructures such as old asbestos pipes sheeting, or tile, with fibres observable along breaks in material.	Section 6.10.4 Appendix T
Social Impact	Implementation of the mitigation measures identified in Table 31 of the EIS as summarised from Table 20 in the Social Impact Assessment prepared by Urbis in Appendix U.	Section 6.11 Appendix U
Waste Management	<u>During site preparation and construction</u> *Training and Awareness* Staff present on site during the construction stage of the project will be required to undertake induction and awareness training inclusive of the WMP and site-specific waste management. This includes: • Induction to the waste management hierarchy and use across the site; and	Section 6.13 Appendix V

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	• Details of responsibilities for waste management and key personnel;
	• Site specific waste management practices relevant to the project stage such as:
	  ○ Waste storage and stockpiling locations;
	  ○ Waste disposal requirements;
	  ○ Hazardous or special wastes;
	  ○ Record of waste disposal details and receipts; and
	• Knowledge of emergency response procedures and contacts; and
	• Asbestos Awareness Training.
	
	Signage will be provided on site to ensure waste management measures are communicated across the subject site, particularly for contractors and visitors who are not regularly on site. Signage will highlight correct procedures for separating wastes where required, locations of bins and waste storage areas, labelling of designated bins, potential hazards associated with the waste streams and handling, and contact details should any issues be encountered.
	
	Signage will be prepared and located on site in accordance with the Australian Standard (AS 1319) for safety signs, and the NSW EPA and Australian Standard for recycling signage.
	
	Monitoring and Reporting
	
	The following activities will be undertaken to inform future onsite waste management and to determine the success of the WMP:
	• Ensure waste quantities generated are recorded, including tracking of receipts from waste recycling or disposal via the appointed waste contractor;
	• Record waste classification and testing results;
	• Review the WMP in light of any changes to construction activities or further information which may alter waste management practices;
	• Undertake auditing of waste management across the site as a component of broader environmental site audits;	

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	• Undertake visual inspections daily to ensure waste management controls are implemented and maintained across site; and • Undertake final review of the WMP upon project completion to ensure information accurately reflects site activities, and to assist future waste management. Outcomes of audits and waste tracking will be reported to the client or the Principal Contractor, potentially through weekly or monthly reporting to ensure waste management objectives are adhered to. *Corrective Action* Where formal auditing, daily visual inspections or incident reporting identify incorrect storage or disposal procedures, or maintenance or waste management issues, observations will be promptly reported to the Construction Site Manager and recorded. The Construction Site Manager will determine appropriate measures to rectify the issues in a timely manner in consultation with the Environmental Management Representative and Health and Safety Manager where required.	
	<u>During operation</u> *Avoidance and Reduction of Waste* The ongoing site users (operational staff and contractors) will be required to minimise waste generation, and endeavour to reuse waste where available. Waste should be avoided through strategic selection of materials during purchasing which takes into account options which may reduce waste generation during ongoing operation of the site. This includes considering procurement of materials which use minimal packaging and are suitable for reuse. Selection of operational materials will also consider the use of recycled items where practicable. Opportunities to avoid waste generated by operation include: • Develop a procurement policy which considers waste avoidance measures such as: ○ Order site specific or prefabricated items where practicable to minimise surplus material.	

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	○ Consider packaging material provided by suppliers during purchasing and reduce this requirement where possible or consider returnable packaging. ○ Material selection to consider recycled items. *Reuse and Recycling* Measures to separate waste streams should be implemented off site to maximise re-use and recycling. Procedures to manage the reuse and recycling of waste materials during operation include: • Incorporate waste management into site management procedures to promote reuse and/or recycling of materials. • Consider opportunities for materials reuse and/or recycling where practicable. *Treatment and Disposal* Operational wastes may require treatment to stabilise them for appropriate disposal to reduce the risk of harm to human health or the environment (for example chemicals). These materials may not be suitable for reuse or recycling and will be segregated and disposed of via a suitably qualified contractor off site. Waste will only be sent to landfill or disposal facilities where the prioritised management methods in the hierarchy cannot be implemented in a cost effective or practical manner. Measures to manage the treatment and disposal of waste materials during operation include: • Ensure waste which cannot be reused or recycled and require disposal are clearly segregated from those which have the potential to be reused. • Maintenance staff to be inducted into site waste management practices. • Hazardous materials to be disposed of in accordance with the handling and disposal requirements of SafeWork NSW and NSW EPA. • General wastes to be disposed of in accordance with local council requirements.	

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	Roles and Responsibilities
	
	It is expected that all personnel attending the site (operational staff and contractors) will commit to the WMP and be responsible for their own actions in adhering to the waste management objectives. Operation of the BESS will not require any staff to be a constant presence at the BESS location. As the site will be largely unattended, implementation of the WMP will be managed by the site asset managers.
	
	Training and Awareness
	
	All staff and contractors will undertake awareness training of the WMP and site-specific waste management. This includes:
	• Induction to the waste management hierarchy and use across the site.
	• Details of responsibilities for waste management and key personnel.
	• Site specific waste management practices such as:
	  ○ Waste disposal requirements;
	  ○ Hazardous or special wastes; and
	  ○ Record of waste disposal details and receipts.
	• Knowledge of emergency response procedures and contacts.
	
	Monitoring and Reporting
	
	The following activities will be undertaken to inform future onsite waste management and to improve the efficiency in achieving the outcomes of the WMP:
	• Review the WMP in light of any changes to operational activities or further information which may alter waste management practices.
	• Undertake auditing of waste management across the site as a component of broader environmental site audits.
	• Undertake visual inspections to ensure waste management controls are implemented and maintained across site.	

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	• Undertake annual review of the WMP to ensure information accurately reflects site activities, and to assist future waste management. Where formal auditing, general inspections or incident reporting identify incorrect storage or disposal procedures, or maintenance or waste management issues, observations will be promptly reported to Equis management and recorded. Equis management will determine appropriate measures to rectify the issues in a timely manner.	

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