Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the *Environmental Planning and Assessment Act 1979*

Part 8 of the Environmental Planning and Assessment Regulation 2021

Application Number	SSD-136947490
Project	Karangi Battery Energy Storage System, which includes: Construction, operation, and decommissioning of a Battery Energy Storage System with a capacity of approximately 240 MW / 960 MWh, and ancillary infrastructure.
Location	Casuarina Lane, Karangi, within the Coffs Harbour Local Government Area
Applicant	Avenis Energy Pty Ltd
Date of Issue	28 August 2026
General Requirements	The Environmental Impact Statement (EIS) for the development must comply with the requirements in Part 8 of the *Environmental Planning and Assessment Regulation 2021* (the EP&A Regulation) and must have regard to the Department's: • *State Significant Development Guidelines* (SSD Guidelines); • *Renewable Energy Planning Framework*; and • *Benefit-Sharing Guideline* (most recent version as updated from time to time). In particular, the EIS must include: • a stand-alone executive summary; • a full description of the development, including: - details of construction, operation and decommissioning, including any staging of the development; - a description of the physical elements of the development including the form, maximum height and materials (including ancillary infrastructure); - a high quality site plan at an adequate scale showing all infrastructure and facilities (including any infrastructure, and accommodation camps); - the Project Area (as per Table 1 of the *SSD guidelines – preparing an environmental impact statement*) and Development Footprint (disturbance area including but not limited to areas for infrastructure, road works, access tracks, fire break, fencing and temporary laydown,

and accommodation camps (if proposed));

- a high quality detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development; and
- confirmation if the project is designated development in accordance with the *Environmental Planning and Assessment Act 1979* (EP&A Act) and the EP&A Regulation;

- consistency in information presented in the EIS and all technical reports, including distances, development footprint, project design and infrastructure proposed, construction timeframes and receiver numbers;
- 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, other proposed or approved energy facilities, major projects, rural/residential development, Crown lands within and adjacent to the project site and subdivision potential);
- a risk assessment of the potential impacts of the development, identifying the key issues for further assessment;
- an assessment of the likely impacts of the development on the environment, and any other significant issues identified in the above risk assessment, focusing on the specific issues identified below, including:
  - a description of the existing environment likely to be affected by the development using sufficient baseline data;
  - an assessment of the likely impacts of all stages of the development (including road upgrades) proportionate to the scope and significance of the impacts, including assessment of cumulative impacts from existing, approved and proposed developments in the region, with reference to all relevant legislation, environmental planning instruments, guidelines, policies, plans, and applicable industry codes of practice, including the *Cumulative Impact Assessment Guideline* (DPIE, 2022);
  - a description and assessment if staging of the project is proposed including any site mobilisation or pre-construction works;
  - a description of the measures that would be implemented to avoid, mitigate and/or offset the impacts of the development; and
  - a description of the measures that would be implemented to monitor and report on the environmental performance of the development;
- a model for community benefit-sharing, prepared in accordance with the *Benefit-Sharing Guideline*, including the terms of any proposed voluntary planning agreement with the relevant local council;
- a consolidated summary table of all the proposed environmental mitigation, management and monitoring measures, identifying all the commitments in the EIS;
- consideration of the attached City of Coffs Harbour advice; and
- a detailed evaluation of the merits of the project as a whole, having regard to:
  - the requirements in Section 4.15 of the EP&A Act, 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 - 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. **Estimated Development Cost and Employment** • Provide the estimated development cost (EDC) of the development prepared in accordance with the relevant planning circular using the Standard Form of EDC Report; and • Provide an estimate of the retained and new jobs that would be created during the construction and operational phases of the development, including details of the methodology to determine the figures provided. The development application must also be accompanied by: • the consent of the owner/s of the land (as required in Section 23(1) of the EP&A Regulation); and • a declaration from a Registered Environmental Assessment Practitioner that the EIS includes the information specified in the Department's *Registered Environmental Assessment Practitioner Guidelines*.
Key issues	The EIS must address the following specific matters: **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) (BC Act), having regard to the *Biodiversity Assessment Method* (BAM) *2020* and documented in a Biodiversity Development Assessment Report (BDAR). The BDAR must: - be prepared using the approved BDAR template; - document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the BAM; - assess the impacts associated with all ancillary infrastructure, including the transport route road upgrades; - include an assessment for serious and irreversible impacts (SAII) in accordance with Section 9.1 of the BAM; - include a strategy to offset any residual impacts of the development in accordance with the BC Act; - be finalised by an accredited assessor as BAM-compliant within 14 days of submission; and - be submitted with all spatial data in accordance with Appendix K of the BAM, unless Conservation Programs, Heritage and Regulation Group (CPHR) and the Department of Planning, Housing and Infrastructure (DPHI) determine the proposed development is not likely to have any significant impacts on biodiversity values; • 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;

- a cumulative impact assessment of biodiversity values in the region from nearby developments; and
- if an offset is required, details of the measures proposed to address the offset obligations.

Heritage – including:

- an Aboriginal Cultural Heritage Assessment Report (ACHAR) prepared in accordance with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH, 2011) and the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW* (DECCW, 2010), identifying, describing, and assessing any impacts to any Aboriginal cultural heritage sites or values associated with the site (including impacts from any proposed earth works, construction works and road upgrades), including results of archaeological test excavations (where required), undertaken in accordance with the relevant standards and requirements;
- evidence of adequate consultation with Aboriginal communities in determining and assessing impacts, identifying and selecting options for avoidance of Aboriginal cultural heritage and identifying appropriate mitigation measures (including the final proposed measures), having regard to the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010); and
- an assessment of the potential impact of the development on historic heritage having regard to the *Guidelines for Preparing a Statement of Heritage Impact*.

Land – including:

- a detailed justification of the suitability of the site and that the site can accommodate the proposed development having regard to its potential environmental impacts, land contamination, permissibility, strategic context and existing site constraints;
- an assessment of the potential impacts of the development on existing land uses on the site and adjacent land, including:
  - agricultural land, flood prone land, nearby drinking water catchments, Crown lands, mining, quarries, mineral or petroleum rights (if relevant);
  - a soil survey to determine the soil characteristics and consider the potential for salinity, acid sulfate soils, and 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 relevant LEP provisions applying to the land (including assessment of zoning and minimum lot size standards);
  - completion of a Land Use Conflict Risk Assessment in accordance with the Department of Industries *Land Use Conflict Risk Assessment Guide* (if required);
  - an assessment of impact on agricultural resources and agricultural production on the site and region; and

- a preliminary investigation into potential contamination across the site, in accordance with the *State Environmental Planning Policy (Resilience and Hazards) 2021* (Hazards SEPP) (as required).

Visual – including:

- a detailed assessment of the likely visual impacts of all components of the project on surrounding residences (including approved developments, lodged development applications and dwelling entitlements), key locations, scenic or significant vistas and road corridors in the public domain; and
- 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).

Noise and Vibration – including:

- an assessment of the construction noise impacts (including impacts from proposed road upgrades) 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), assess traffic noise having regard to the *NSW Road Noise Policy* (DECCW, 2011) and cumulative noise impacts (considering other developments in the area), including (where appropriate):
  - identification of impacts associated with construction, site emission and traffic generation at noise affected sensitive receivers, including the provision of operational noise contours;
  - details of noise monitoring survey, background noise levels and amenity noise levels at the most-affected residential receivers;
  - details of likely daily charging/discharging load profile, manufacturer specifications for plant and equipment and noise source inventory (including intensity, quantity, location, directivity and frequency information);
  - an assessment of 'worst case' noise emission scenarios during periods of discharging and charging;
  - consideration of annoying characteristics of noise and prevailing meteorological conditions in the study area;
  - details and analysis of the effectiveness of proposed management and mitigation measures to adequately manage identified impacts, including a clear identification of residual noise and vibration impacts following application of these mitigation measures and details of any proposed compliance monitoring programs; and
  - an assessment of vibration impacts having regard to NSW EPA *Guideline Assessing Vibration: A Technical Guideline* (DEC 2006).

Transport – including:

- an assessment of the peak and average traffic generation, including light vehicles (including shuttle buses), heavy vehicles, heavy vehicles requiring escort, high risk heavy vehicles requiring escort (noting Table 1 in TfNSW Fact Sheet - *Transport Management Plans for Over Size and/or Overmass Movements in NSW*) and construction worker transportation;
- an assessment of the likely transport impacts of the project, particularly in relation to the capacity and condition of the public roads (including site

access(es)), road safety, intersection performance and impacts to rail infrastructure (with consideration of rail safety);

- a concept Level Route Analysis (including swept path analysis) required for heavy vehicles requiring escort and high risk heavy vehicles requiring escort;
- consideration of the attached TfNSW advice, including, but not limited to, the route assessment of high-risk and non-high risk heavy vehicles requiring escort via Newcastle Inner City Bypass to Newcastle Road and the EnergyCo Port to Renewable Energy Zones (REZ) road upgrades;
- a cumulative impact assessment of traffic from nearby developments; and
- details of measures to mitigate and / or manage potential impacts and consultation with the relevant road authorities including:
  - a schedule of required road upgrades (including resulting from heavy vehicles, heavy vehicles requiring escort and high risk heavy vehicles requiring escort haulage routes where relevant);
  - strategic concept designs of proposed road upgrades (including the site access point(s)), prepared in accordance with TfNSW's *Strategic-Design-requirements-for-DA-Factsheet.pdf* (where relevant); and
  - road maintenance, and any other traffic control measures.

Water and Soils – including:

- an assessment of the likely impacts of the development (including flooding and pre and post development flood modelling) on surrounding watercourses (including their Strahler Stream Order), groundwater resources and surface water movements, and measures proposed to monitor, reduce and mitigate these impacts including water management;
- a site water balance for the development;
- details of water requirements and supply arrangements for construction and operation (including consultation with suppliers);
- 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) and *Managing Urban Stormwater: Soils and construction – Volume 2A manual* (Landcom, 2008)*;*
- an assessment of the likely impacts of the development on hydrology and groundwater (if extraction or interference is proposed), including any changes to overland flows and groundwater levels on-site or off-site, and detail design solutions and operational procedures to manage impacts;
- where the project involves works within 40 metres of any river, lake or wetlands (collectively waterfront land), identify likely impacts to the waterfront land, and how the activities are to be designed and implemented in accordance with the *Guidelines for riparian corridors on waterfront land* (DCCEEW, 2025) and (if necessary) *Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings* (DPI 2003), *and Policy & Guidelines for Fish Habitat Conservation & Management* (DPE, 2013);
- identification of any flood risk on site having regard to adopted flood studies, the potential effects of climate change and any relevant provisions of the *NSW Flood Risk Management Manual*;

- where the development could alter flood behaviour, affect flood risk to the existing community or expose its users to flood risk, provide a flood impact and risk assessment (FIRA) prepared in accordance with the *Flood Impact and Risk Assessment – Flood Risk Management Guide LU01*;
- detailed design solutions and operational procedures to mitigate flood risk where required; and

- consideration of the attached City of Coffs Harbour advice, including, but not limited to, dam safety and flooding impacts associated with the Karangi Dam dam break risk.

Hazards – including:

- *Health* - an assessment of potential hazards and risks including but not limited to fires, spontaneous ignition, electromagnetic fields for 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*;
- *Bushfire* – a bushfire hazard assessment completed by a suitably qualified consultant and identify potential hazards and risks associated with bushfires / use of bushfire prone land including the risks that a BESS would cause a bushfire and demonstrate compliance with *Planning for Bush Fire Protection 2019*;
- *Dangerous Goods* - a preliminary risk screening completed in accordance with the *State Environmental Planning Policy (Resilience and Hazards) 2021*; and
- *Battery Energy Storage System* - a Preliminary Hazard Analysis (PHA) 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 PHA must consider all recent standards and codes and verify separation distances to on-site and off-site receptors to prevent fire propagation. The PHA must also consider release of toxic gases or toxic combustion byproducts from a full-scale battery fire. The PHA must demonstrate compliance with *Hazardous Industry Advisory Paper No. 4, Risk Criteria for Land Use Safety Planning* (DoP, 2011). The PHA must consider the effect of bushfires and floods on batteries or other components of the BESS.

Social – including:

- an assessment of the social impacts or benefits of the project for the region and the State as a whole in accordance with the *Social Impact Assessment Guideline* (DPHI, 2025), including consideration of any increase in demand for community infrastructure services; and
- an assessment of construction workforce accommodation, including consultation with accommodation providers and relevant Council(s).

Economic and Benefit-Sharing – including an assessment of the economic impacts or benefits of the project for the region and the State as a whole and provide details of any proposed voluntary benefit sharing, having regard for the *Benefit-Sharing Guideline 2024* and *Private Agreement Guideline 2024*.

Waste – identify, quantify and classify the likely waste streams to be generated during construction, operation and decommissioning, and describe the measures to be implemented to manage, reuse, recycle and safely

	dispose of this waste (in consultation with waste facilities, including Council).
Plans and Documents	The EIS must include all relevant plans, diagrams and relevant documentation required in accordance with the SSD Guidelines and under Part 3 of the EP&A Regulation. Provide these as part of the EIS rather than as separate documents. In addition, the EIS must include high quality files of maps and figures of the subject site and proposal.
Legislation, Policies & Guidelines	The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. 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.planning.nsw.gov.au/Policy-and-Legislation/Planning-reforms/Rapid-Assessment-Framework/Improving-assessment-guidance; • https://www.planningportal.nsw.gov.au/major-projects/assessment/policies--and-guidelines; and • http://www.environment.gov.au/epbc/publications#assessments.
Consultation	During the preparation of the EIS, you should consult with the relevant local, State or Commonwealth Government authorities, infrastructure and service providers, port authorities, community groups, affected landowners and any exploration licence and/or mineral title holders. In particular, you must undertake detailed consultation with affected landowners surrounding the development, the owners of all exploration licences across the proposed development site, the operator of any pipelines on or adjacent to the site, and all relevant government agencies, including the relevant local Council. The EIS must: • detail how engagement undertaken was consistent with the *Undertaking Engagement Guidelines for State Significant Projects* (DPHI, 2024); and • 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, an explanation should be provided.
Expiry Date	If you do not submit a Development Application and EIS for the development within 2 years of the issue date of these SEARs, your SEARs will expire. If an extension to these SEARs will be required, please consult with the Planning Secretary 3 months prior to the expiry date.