Planning Secretary's Environmental Assessment Requirements
State Significant Development

Section 4.12(8) of the *Environmental Planning and Assessment Act 1979*
Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*

Application Number	SSD-17017460
Project Name	Chain Valley Colliery Consolidation Project, which involves: · consolidating the Chain Valley Extension Project (SSD-5465) and the Mannering Colliery – Continuation of Mining Project (MP06_0311) into one new development consent and voluntary surrender of both existing consents; · extending underground mining operations within and beyond the existing approved mine boundaries to extract up to 2.8 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal until 31 December 2029; · utilising and upgrading the existing infrastructure at both Chain Valley Colliery and Mannering Colliery mine surface facilities; · constructing an overland conveyor to transport product coal from CVC to Vales Point Power Station (VPPS); · transporting up to 2.8 Mtpa of product coal by conveyor to VPPS, and by road to domestic markets and the Port of Newcastle; and · progressively rehabilitating the site.
Location	Chain Valley Colliery and Mannering Colliery surface facilities located off Construction Road and Ruttleys Road, Vales Point and Mannering Park, about 35 kilometres south of Newcastle, within the Central Coast local government area. Underground mining areas are located under the land and waters of Lake Macquarie within the Central Coast and Lake Macquarie local government areas.
Applicant	Great Southern Energy Pty Ltd
Date of Issue	13/05/2021
General Requirements	The Environmental Impact Statement (EIS) for the development must comply with the requirements of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000.* In particular, the EIS must include: · an executive summary; · a full description of the development, including: - historical mining operations at the mine and in the surrounding region; - the resource to be extracted, demonstrating efficient resource recovery, mine safety and environmental protection within environmental and geotechnical constraints; - the proposed mine layout and scheduling, including construction, exploration, operational stages and rehabilitation; - coal processing and transport arrangements; - infrastructure and facilities (including any existing infrastructure or infrastructure that would be required for the development, but the subject of a separate approval process); - a waste (overburden, rejects, tailings, etc) management strategy; - a water management strategy; - a rehabilitation strategy; - the likely interactions between the development and existing, approved or proposed mining operations or power station(s) in the vicinity of the

	site, particularly the approved Myuna Coal Project; · a strategic justification of the development focusing on site selection and the suitability of the proposed site; · a list of any approvals that must be obtained before the development may commence; · an assessment of the likely impacts of the development on the environment, focusing on the key issues identified below, including: · a description of the existing environment likely to be affected by the development, using sufficient baseline/background data; · an assessment of the likely impacts for all stages of the development, including any cumulative impacts, taking into consideration any relevant laws, environmental planning instruments, guidelines, policies, plans and industry codes of practice; · a description of the measures that would be implemented to avoid, minimise, mitigate and/or offset the likely impacts of the development, and an assessment of: o whether these measures are consistent with industry best practice, and represent the full range of reasonable and feasible mitigation measures that could be implemented; o the likely effectiveness of these measures; o whether contingency measures would be necessary to manage any residual risks; and o include proposals for adaptive management and/or contingency plans to manage any significant risks to the environment; and · a description of the measures that would be implemented to monitor and report on the environmental performance of the development; · a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS; · consideration of the development against all relevant environmental planning instruments (including Part 3 of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007);* · 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; - the biophysical, economic and social impacts of the development, including the principles of ecologically sustainable 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 signed statement from the author of the EIS, certifying that the information contained within the document is neither false nor misleading. While not exhaustive, **Attachment 1** contains a list of some of the environmental planning instruments, guidelines, policies, and plans that may be relevant to the environmental assessment of this development. In addition to the matters set out in Schedule 1 of the *Environmental Planning and Assessment Regulation 2000*, the development application must be accompanied by a signed report from a suitably qualified and experienced person that includes an accurate estimate of the capital investment value (as defined in Clause 3 of the *Environmental Planning and Assessment Regulation 2000*), including details of all the assumptions and components from which the capital investment value calculation is derived.
Key issues	The EIS must address the following key issues:

- **Subsidence** – including a detailed qualitative and quantitative assessment of the potential conventional and non-conventional subsidence effects and impacts of the development that includes:
  - accurate predictions of the potential subsidence effects and impacts of the development, paying particular attention to the long-term stability of final pillars, including a robust sensitivity analysis of these predictions;
  - predictions of the potential cumulative subsidence effects and impacts from the development in conjunction with overlying and adjacent mining (whether historical, approved or proposed), including a robust sensitivity analysis of these predictions; and
  - a detailed assessment of the potential consequences of these effects and impacts on the natural and built environment, paying particular attention to those features that are considered to have significant economic, social, cultural or environmental value, including Lake Macquarie, its bed, seagrass beds and foreshores;
- **Land Resources** – including:
  - an assessment of the likely impacts of the development on the soils and land capability of the site and surrounds; and
  - an assessment of the compatibility of the development with other land uses in the vicinity of the development, in accordance with the requirements of Clause 12 of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*;
- **Air Quality** – including:
  - a detailed assessment of potential construction and operational air quality impacts, in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW,* and with a particular focus on dust emissions including $PM_{2.5}$ and PM_{10}, and having regard to the *Voluntary Land Acquisition and Mitigation Policy*; and
  - an assessment of the likely greenhouse gas impacts of the development;
- **Rehabilitation and Final Landform** – including
  - a description of final landform design objectives, having regard to achieving a natural landform that is safe, stable, non-polluting, fit for the nominated post-mining land use and sympathetic with surrounding landforms;
  - an analysis of final landform options, including the short and long-term cost and benefits, constraints and opportunities of each, and detailed justification for the preferred option;
  - identification and assessment of post-mining land use options, having regard to any relevant strategic land use planning or resource management plans/policies;
  - rehabilitation objectives and completion criteria to achieve the nominated post-mining land use;
  - a detailed description of the progressive rehabilitation measures that would be implemented over the life of the development and how this rehabilitation would be integrated with surrounding mines and land uses;
  - a detailed description of the proposed rehabilitation and mine closure strategies for the development, having regard to the key principles in *Strategic Framework for Mine Closure*; and
  - the measures which would be put in place for the long-term protection and/or management of the site and any biodiversity offset areas post-mining;
- **Noise** – including:
  - a detailed assessment of the likely construction, operational and off-

site transport noise impacts of the development in accordance with the *Interim Construction Noise Guideline*, *NSW Noise Policy for Industry* and the *NSW Road Noise Policy* respectively, and having regard to the *Voluntary Land Acquisition and Mitigation Policy*;

- **Visual –** including:
  - a detailed assessment of the likely visual impacts of the development (before, during and post-mining) on private landowners in the vicinity of the development and key vantage points in the public domain, paying particular attention to any new infrastructure;
- **Waste** – including estimates of the quantity and nature of the waste streams that would be generated by the project (including tailings and coarse rejects) and any measures that would be implemented to minimise, manage or dispose of these waste streams;
- **Water** – including:
  - a detailed site water balance, including a description of site water demands, water disposal methods (inclusive of volume and frequency of any water discharges), water supply infrastructure and water storage structures;
  - identification of any licensing requirements or other approvals under the *Water Act 1912* and/or *Water Management Act 2000*;
  - demonstration that water for the construction and operation of the proposed development can be obtained from an appropriately authorised and reliable supply in accordance with the operating rules of any relevant Water Sharing Plan (WSP) or water source embargo;
  - an assessment of any likely flooding impacts of the development;
  - the measures which would be put in place to control sediment run-off and avoid erosion;
  - an assessment of the likely impacts of the development on the quantity and quality of existing surface and groundwater resources including detailed modelling of potential groundwater impacts, assessment of proposed water discharge quantities and quality against receiving water quality and flow objectives; and
  - an assessment of the likely impacts of the development on aquifers, watercourses, riparian land, water-related infrastructure, and other water users;
- **Biodiversity** – including**:**
  - accurate predictions of any vegetation to be cleared on site;
  - an assessment of the likely biodiversity impacts of the development, paying particular attention to threatened species, populations and ecological communities and groundwater dependent ecosystems, undertaken in accordance with *Biodiversity Assessment Method* and documented in a Biodiversity Development Assessment Report; and
  - a strategy to offset any residual impacts of the development in accordance with the offset rules under the *Biodiversity Offsets Scheme*;
- **Heritage** – including:
  - an assessment of the potential impacts of the development on Aboriginal heritage (cultural and archaeological), including consultation with relevant Aboriginal communities/parties and documentation of the views of these stakeholders regarding the likely impact of the development on their cultural heritage; and
  - identification of historic heritage in the vicinity of the development and an assessment of the likelihood and significance of impacts on heritage items;
- **Traffic & Transport** – including:
  - an assessment of the likely transport impacts of the development on

	the capacity, condition, safety and efficiency of the local and regional road network, including undertaking a road safety audit; and - a description of the measures that would be implemented to mitigate any impacts; and - an economic justification of transporting coal on public roads, including an assessment of alternative transport methods; · **Hazards** – including: - an assessment of the likely risks to public safety, paying particular attention to potential bushfire risks, interactions with nearby prescribed dams and the handling and use of any dangerous goods; and - a health risk assessment that considers the adverse effects from human exposure to acute and cumulative project related environmental hazards, in accordance with *Environmental Health Risk Assessment: Guidelines for assessing human health risk from environmental hazards*; · **Social** – including a detailed assessment of the potential social impacts of the development that builds on the findings of the Social Impact Assessment Scoping Report, in accordance with the *Social impact assessment guideline for State significant mining, petroleum production and extractive industry development*, paying particular consideration to: - how the development might affect people's way of life, community, access to and use of infrastructure, services and facilities, culture, health and wellbeing, surroundings, personal and property rights, decision-making systems, and fears and aspirations; - the principles in Section 1.3 of the guideline; - the review questions in Appendix D of the guideline; and - the recommendations made in Attachment 3; · **Economic** – including a detailed assessment of the likely economic impacts of the development, in accordance with the *Guidelines for the economic assessment of mining and coal seam gas proposals 2015*, paying particular attention to: - the significance of the coal resource; - the costs and benefits of the project; identifying whether the development as a whole would result in a net benefit to NSW, including consideration of fluctuation in commodity markets and exchange rates; and - the demand on local infrastructure and services; and · **Cumulative** – including a detailed assessment of the cumulative impacts of the development, in combination with other existing and approved mining projects in the locality, with a particular focus on air quality, noise, traffic and social impacts, as well as impacts on water resources.
Consultation	During the preparation of the EIS, you must consult with relevant local, State and Commonwealth Government authorities, service providers, Aboriginal stakeholders, community groups and affected landowners. In particular you must consult with: - affected landowners; - Registered Aboriginal Parties; - local community groups; - Central Coast Council; - Lake Macquarie City Council; - Biodiversity Conservation Division within the Department; - Heritage NSW within the Department of Premier and Cabinet; - Environment Protection Authority; - Mining, Exploration and Geoscience within Regional NSW;

	- Resources Regulator within Regional NSW; - the Crown Lands Group within the Department; - the Water Group and the Natural Access Water Regulator within the Department; - the Primary Industries Group (including NSW Forestry, Agriculture and Fisheries) within the Department; - Transport for NSW; - Local Land Services; - NSW Health; - Water NSW; - Hunter Water; - NSW Rural Fire Service; and - Subsidence Advisory NSW. The EIS must: - describe the consultation process used and demonstrate that effective consultation has occurred; - describe the issues raised; - identify where the design of the development has been amended and/or mitigation proposed to address issues raised; and - otherwise demonstrate that issues raised have been appropriately addressed in the assessment.
Further consultation after 2 years	If you do not lodge a development application and EIS for the development within 2 years of the issue date of these requirements, you must consult further with the Planning Secretary in relation to the preparation of the EIS.
References	The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, the following attachment contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this proposal.

ATTACHMENT 1

Environmental Planning Instruments, Policies, Guidelines & Plans

Land	
	Interim Protocol for Site Verification & Mapping of Biophysical Strategic Land (OEH)
	Soil and Landscape Issues in Environmental Impact Assessment (NOW)
	Agfact AC.25: Agricultural Land Classification (NSW Agriculture)
	State Environmental Planning Policy No. 55 – Remediation of Land
	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC)
	Land Use Conflict Risk Assessment Guide (DPI)
Water	
Water Sharing Plans	Hunter Unregulated and Alluvial Water Sources 2009
	North Coast Fractured and Porous Rock Groundwater Sources 2016
	Hunter Regulated River Water Source
Groundwater	NSW State Groundwater Policy Framework Document (NOW)
	NSW State Groundwater Quality Protection Policy (NOW)
	NSW State Groundwater Quantity Management Policy (NOW)
	NSW Aquifer Interference Policy 2012 (NOW)
	Guidelines for Controlled Activities on Waterfront Land (2018)
	Australian Groundwater Modelling Guidelines 2012 (Commonwealth)
	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)
	Guidelines for the Assessment & Management of Groundwater Contamination (EPA)
Surface Water	Hunter River Salinity Trading Scheme (EPA)
	NSW State Rivers and Estuary Policy (NOW)
	NSW Government Water Quality and River Flow Objectives (EPA)
	Using the ANZECC Guideline and Water Quality Objectives in NSW (EPA)
	National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Guidelines for Sewerage Systems – Effluent Management (ARMCANZ/ANZECC)
	National Water Quality Management Strategy: Guidelines for Sewerage Systems – Use of Reclaimed Water (ARMCANZ/ANZECC)
	Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (EPA)
	Managing Urban Stormwater: Soils & Construction (Landcom) and associated Volume 2E: Mines and Quarries (DECC)
	Managing Urban Stormwater: Treatment Techniques (EPA)
	Managing Urban Stormwater: Source Control (EPA)
	Technical Guidelines: Bunding & Spill Management (EPA)
	Environmental Guidelines: Use of Effluent by Irrigation (EPA)
	A Rehabilitation Manual for Australian Streams (LWRRDC and CRCCH)
	NSW Guidelines for Controlled Activities (NOW)
Flooding	Floodplain Development Manual (OEH)
	Floodplain Risk Management Guideline (OEH)

Biodiversity	
	Biodiversity Assessment Method (EES 2020)
	Fisheries NSW policies and guidelines
	Guidelines for developments adjoining Department of Environment, Climate Change and Water (DECCW, 2010)
	Guidelines for Threatened Species Assessment (DP&E)
	Guidance to assist a decision-maker to determine a serious and irreversible impact (OEH)
	NSW State Groundwater Dependent Ecosystem Policy (NOW)
	Revocation, recategorisation and road adjustment policy (OEH, 2012)
	Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW)
	State Environmental Planning Policy (Koala Habitat Protection) 2021
Heritage	
	The Burra Charter 2013 (The Australia ICOMOS Charter for Places of Cultural Significance)
	Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010)
	Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW 2010)
	Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH 2011)
	NSW Heritage Manual (OEH)
	Statements of Heritage Impact (OEH)
Noise & Blasting	
	NSW Noise Policy for Industry (EPA)
	Interim Construction Noise Guideline (DECC)
	NSW Road Noise Policy (EPA)
	Rail Infrastructure Noise Guideline (EPA)
	Voluntary Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Developments (DP&E)
	Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (ANZEC)
	Assessing Vibration: A Technical Guideline (DEC)
Air	
	Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW (EPA)
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (EPA)
	Coal Mine Particulate Matter Control Best Practice – Site Specific Determination Guideline (EPA)
	Generic Guidance and Optimum Model Settings for the CALPUFF Modelling System for Inclusion in the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)
	National Greenhouse Accounts Factors (Commonwealth)
	Voluntary Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Developments (DP&E)
Transport	
	Guide to Traffic Generating Development (RTA)
	Road Design Guide (RMS) & relevant Austroads Standards
Hazards	
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
	Hazardous and Offensive Development Application Guidelines – Applying SEPP 33

	Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis
	Planning for Bush Fire Protection 2019 (NSW RFS)
Resource	
	Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 (JORC)
Waste	
	Waste Classification Guidelines (DECC)
Rehabilitation	
	Mine Rehabilitation – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth)
	Mine Closure and Completion – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth)
	Strategic Framework for Mine Closure (ANZMEC-MCA)
Social & Economic	
	Guidelines for the economic assessment of mining and coal seam gas proposals (NSW Government)
	Social impact assessment guideline for State significant mining, petroleum production and extractive industry development (September 2017, DP&E)
Environmental Planning Instruments - General	
	State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007
	State Environmental Planning Policy (State and Regional Development) 2011
	State Environmental Planning Policy (Infrastructure) 2007
	Lake Macquarie Local Environmental Plan 2014
	Wyong Local Environmental Plan 2013

ATTACHMENT 2

AGENCIES' CORRESPONDENCE