

Secretary's Environmental Assessment Requirements

Section 5.16 of the *Environmental Planning and Assessment Act 1979*

Application Number	SSI 9471
Project	<p>Port Kembla Gas Terminal which includes construction and operation of a liquid natural gas (LNG) terminal on the eastern side of the inner harbour at Port Kembla (at the existing berth 101) including;</p> <ul style="list-style-type: none"> • a floating storage and regasification unit (FSRU); • LNG carrier vessels to supply the FSRU; • ancillary wharf infrastructure; and • a pipeline connection to the existing east coast gas transmission network.
Location	Port Kembla, south of Wollongong NSW
Proponent	Australian Industrial Energy
Date of Issue	10 August 2018
General Requirements	<p>The Environmental Impact Statement (EIS) for the project must comply with the requirements in Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>.</p> <p>In particular, the EIS must include:</p> <ul style="list-style-type: none"> • a stand-alone executive summary; • a full description of the project, including: <ul style="list-style-type: none"> - all components, materials and activities required to construct and operate the project (including any infrastructure that would be required for the project, but the subject of a separate approvals process); - site plans and maps at an adequate scale with dimensions showing: <ul style="list-style-type: none"> – the location and dimensions of all project components; – existing infrastructure, land use, and environmental features in the vicinity of the project (including any other existing, approved or proposed infrastructure in the region); and – the pipeline corridor that has been assessed, including any allowance for micro-siting and identification of the key environmental constraints that have been considered in the design of the pipeline; - a strategy for the management, and disposal of excavated and dredged material in the short, medium and long term; - the likely interactions between the project and any other existing, approved or proposed major projects in the vicinity of the site, including the Eastern Gas Pipeline (including the Port Kembla Lateral), the Port Kembla Bulk Liquids Terminal, and the Port Kembla Outer Harbour Development Project, and in particular how the project's activities such as disposal of dredged and excavated materials would be integrated into other approvals; - details of construction, operation and decommissioning, including any proposed staging of the project or replacement of infrastructure over time; • a justification for the proposed project as opposed to other alternatives; • the statutory context for the project, including any approvals that must be obtained before the project can commence, including the role/s of the NSW Port Authority, SafeWork NSW and Australian Maritime Safety Authority in regulating hazards and risks; • an assessment of the likely impacts of the project on the environment, focusing on the specific issues identified below, including: <ul style="list-style-type: none"> – a description of the existing environment likely to be affected by the project, using sufficient baseline data;

	<ul style="list-style-type: none"> - an assessment of the potential impacts of the project, including any cumulative impacts, and taking into consideration any relevant legislation, environmental planning instruments, guidelines, policies, plans and industry codes of practice; - a description of the measures that would be implemented to avoid and minimise impacts of the project; - a description of the measures that would be implemented to monitor and report on the environmental performance of the project if it is approved; - a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS; and - consideration of the project against all relevant environmental planning instruments; • an evaluation of the project as a whole having regard to: <ul style="list-style-type: none"> - relevant matters for consideration under the EP&A Act including ecologically sustainable development; - the strategic need and justification for the project having regard to gas security and reliability in NSW and the <i>NSW Gas Plan</i>; and - the biophysical, economic and social costs and benefits of the project. <p>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 the project.</p> <p>The EIS must be accompanied by a signed report from a suitably qualified expert that includes an accurate estimate of the capital investment value (as defined in Clause 3 of the <i>Environmental Planning and Assessment Regulation 2000</i>) of the project, including details of all the assumptions and components from which the capital investment value calculation is derived.</p>
<p>Key Issues</p>	<p>The EIS must address the following specific issues with the level of assessment of likely impacts proportionate to the significance of, or degree, of impact on, the issue, within the context of the project location and the surrounding environment:</p> <ul style="list-style-type: none"> • Port Navigation – an assessment of; <ul style="list-style-type: none"> - the project’s impacts on vessel navigation within Port Kembla during construction and operation, including consideration of current and future port operations (including expansion and changes to shipping configurations); - protocols for safe handling of LNG vessels including under adverse meteorological conditions; and - additional and/or upgraded port resources that may be required. • Hazards and Risks – including a comprehensive Quantitative Risk Assessment (QRA), covering all aspects of the project which may impose public risks, to be prepared consistent with <i>Hazardous Industry Planning Advisory Paper No. 6 – Guidelines of Hazard Analysis</i> (DPE, 2011). This QRA must include: <ul style="list-style-type: none"> - identification of all potential hazards and associated control measures for all aspects of the project, including but not limited to entry of LNG carriers into port, mooring, refilling of FSRU, regassification, and transfer of LNG into gas network distribution tie in point, and other external threats (such as propagation risks from other facilities and vessel movements and cargoes and impacts from adverse sea conditions on the FSRU); - a quantitative risk assessment to estimate the risks from activities of LNG Carrier and/or FSRU operation, with reference to applicable International and/or Australian Standards and Industry Best Practice. The risk assessment must consider the worst-case scenarios from all identified potential hazards that may result in off-site impact. It must also consider:

- the potential risk exposure to all shipping terminal activities at the port, including cruise shipping; and
- the potential propagation risks to and from neighbouring industrial facilities, such as the steelworks, onshore approved bulk liquid storage facilities and other berth activities (such as loading/unloading of dangerous goods at nearby berths);
- a quantitative pipeline risk assessment to estimate the risks from the pipeline to the surrounding land uses, with reference to *Australian Standards AS2885 Pipelines – Gas and Liquid Petroleum - Operation and Maintenance*;
- demonstration that the risks from the project comply with the criteria set out in *Hazardous Industry Planning Advisory Paper (HIPAP) No. 4 – Risk Criteria for Land Use Safety Planning (DoP, 2011)*;
- an assessment of the adequacy of existing firefighting systems on shore and within the harbour (e.g. fire tugs) through a preliminary Fire Safety Study; and
- proposed on-going maintenance and safety management of the project inclusive of associated pipeline infrastructure;
- **Contamination** – including:
 - an assessment of the extent and nature of any contaminated materials or acid sulphate soils on site or in dredged material;
 - an assessment of potential risks to human health and the receiving environment; and
 - a description of the measures that would be implemented to avoid or mitigate impacts;
- **Air Quality** – including:
 - an assessment of the likely air quality impacts of the project in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA, 2016)*;
 - demonstrated ability to comply with the relevant regulatory framework, specifically the *Protection of the Environment Operations Act 1997* and the *Protection of the Environment Operations (Clean Air) Regulation 2010*; and
 - an assessment of the likely greenhouse gas impacts of the project;
- **Water and Soils** – including:
 - a description of water demand, a breakdown of water supplies and the measures to minimise water use;
 - a statement of the ambient NSW Water Quality Objectives (NSW WQOs) and environmental values for the receiving waters relevant to the project, including the indicators and associated trigger values or criteria for the identified environmental values;
 - a demonstration of how construction and operation of the project will, to the extent that it can, ensure that:
 - where the NSW WQOs for receiving waters are currently being met they will continue to be protected; and
 - where the NSW WQOs are not currently being met, activities will work toward their achievement over time;
 - an assessment of the likely impacts of the project on the marine environment, watercourses, riparian land, water related infrastructure and other water users, and soil resources - including sediment/turbidity plumes from dredging and reclamation activities, the release of cold water from LNG regasification (including thermal pollution discharge modelling), and the use and discharge of water during construction, commissioning and maintenance of the pipeline infrastructure;
 - an assessment of the flood impacts of the project;
 - a hydrodynamic assessment having regard to the hydrodynamic assessment completed for the Port Kembla Outer Harbour Development;
 - identify and estimate the quality and quantity of all pollutants, including dioxins and biocides (particularly tributyltin) from antifouling paints and chemicals used over the life of the project, that may be mobilised by

project activities, and describe the nature and degree of impacts that mobilisation may have on the receiving environment and human health;

- assess the impacts of the project on protected and environmentally sensitive lands and processes, and the impacts of coastal inundation and rising sea levels on the project;
- identify sensitive receiving environments and include a strategy to avoid or minimise impacts on these environments;
- a description of the erosion and sediment control measures that would be implemented to mitigate any impacts during construction; and
- assessment of any water take requirements that may be relevant under the *Water Management Act 2000*;
- **Biodiversity** – including:
 - an assessment of the biodiversity values and the likely biodiversity impacts of the project, including the impacts on the Green Golden Bell Frog, in accordance with the *NSW Biodiversity Conservation Act 2016*, the Biodiversity Assessment Method (BAM) and documented in a Biodiversity Development Assessment Report (BDAR); an assessment of the impacts of the project on aquatic ecology, including impacts on key fish habitat and threatened species of fish;
- **Heritage** – including an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the project, including adequate consultation with Aboriginal stakeholders having regard to the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (OEH 2010) and the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (OEH, 2010);
- **Noise and Vibration** – including:
 - an assessment of the likely construction noise impacts of the project under the *Interim Construction Noise Guideline* (DECCW, 2009);
 - an assessment of the likely operational noise impacts of the project under the *NSW Industrial Noise Policy* (EPA, 2000);
 - an assessment of the likely road noise impacts of the project under the *NSW Road Noise Policy* (EPA, 2011);
 - an assessment of the likely vibration amenity and structural impacts of the project under *Assessing Vibration: A Technical Guideline* (DEC, 2006) and *German Standard DIN 4150-3 Structural Vibration – effects of vibration on structures*; and
 - where blasting is required during construction, an assessment of blast impacts in accordance with relevant guidelines (see Attachment 1);
- **Transport** – including:
 - details of traffic types and volumes likely to be generated by the project;
 - details of the proposed transport routes, site access, rail crossings and safety issues;
 - an assessment of the likely transport impacts of the project on the capacity, condition, safety and efficiency of the road network, in particular heavy vehicles, oversize/ over-mass vehicles; and
 - details of measures to mitigate and / or manage potential impacts during construction, developed in consultation with the relevant road and rail authorities (if required).
- **Visual** – including an assessment of the likely visual impacts of the project on the amenity of the surrounding area and private residences in the vicinity of the project.
- **Social & Economic** – including an assessment of the social and economic impacts and benefits of the project for the region and the State as a whole, including consideration of any increase in demand for community infrastructure and services;
- **Waste Management** – including identification, quantification and classification of the likely waste streams likely to be generated during construction and operation, and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste including waste to be used for reclamation or other project activities; and

	<ul style="list-style-type: none"> • Cumulative – including all industrial facilities in the area and other nearby approved and proposed development, particularly in relation to hazards and risk, air quality, noise and vibration, traffic and soil and water.
Consultation	<p>During the preparation of the EIS, you must consult with relevant local, State and Commonwealth Government authorities (including NSW Port Authority), other port stakeholders (including NSW Ports, Port Kembla Coal Terminal and other port users), infrastructure and service providers, community groups and affected landowners.</p> <p>The EIS must describe the consultation that was carried out, identify the issues raised during this consultation, and explain how these issues have been addressed in the EIS.</p>
Further consultation after 2 years	<p>If an EIS for the project is not lodged within 2 years of the issue date of these Environmental Assessment Requirements, the Applicant must consult further with the Secretary in relation to the preparation of the EIS.</p>

ATTACHMENT 1

Environmental Planning Instruments, Policies, Guidelines & Plans

Water	
Groundwater	<p>NSW State Groundwater Policy Framework Document and component policies (DPI)</p> <hr/> <p>Relevant Water Sharing Plans</p> <hr/> <p>NSW Aquifer Interference Policy 2012 (DPI)</p> <hr/> <p>National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)</p>
Surface Water	<p>NSW State Rivers and Estuary Policy (DPI Water)</p> <hr/> <p>NSW Government Water Quality and River Flow Objectives at http://www.environment.nsw.gov.au/ieo/</p> <hr/> <p>Using the ANZECC Guideline and Water Quality Objectives in NSW (DEC, 2006)</p> <hr/> <p>National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ)</p> <hr/> <p>Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DECC, 2008)</p> <hr/> <p>Managing Urban Stormwater: Soils & Construction (Landcom)</p> <hr/> <p>Technical Guidelines: Bunding & Spill Management (EPA)</p> <hr/> <p>NSW Guidelines for Controlled Activities (various) (DPI)</p>
Contamination	
	<p>State Environmental Planning Policy No. 55 – Remediation of Land</p> <hr/> <p>Managing Land Contamination – Planning Guidelines SEPP 55 – Remediation of Land (EPA)</p> <hr/> <p>Guidelines for Consultants Reporting on Contaminated Sites (EPA)</p> <hr/> <p>Contaminates Sites Sampling Design Guidelines 1995 (EPA)</p> <hr/> <p>National Assessment Guidelines for Dredging 2009 (Department of the Environment, Water, Heritage and the Arts)</p> <hr/> <p>Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC)</p> <hr/> <p>National Environment Protection (Assessment of Site Contamination) Measure 1999 (with amendment April 2013)</p> <hr/> <p>Acid Sulfate Soils Manual (OEH)</p> <hr/> <p>Australian and New Zealand Guidelines for Fresh and Marine Water Quality (EPA)</p>
Land and Soils	
	<p>Managing Urban Stormwater: Soils & Construction (Landcom)</p> <hr/> <p>Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC & NHMRC)</p> <hr/> <p>National Environment Protection (Assessment of Site Contamination) Measure 1999 (with amendment April 2013)</p> <hr/> <p>Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water (DECCW, 2010)</p> <hr/> <p>The land and soil capability assessment scheme: Second approximation (OEH)</p> <hr/> <p>Guidelines for Surveying Soil and Land Resources (CSIRO)</p> <hr/> <p>Australian Soil and Land Survey Handbook (CSIRO)</p> <hr/> <p>Soil and Landscape Issues in Environmental Impact Assessment (DPI)</p>
Biodiversity	
	<p>Biodiversity Assessment Method 2017 (OEH)</p> <hr/> <p>Threatened Species Assessment Guidelines - Assessment of Significance (OEH)</p> <hr/> <p>Biosecurity Act 2015</p>

	Policy and Guidelines for Fish Habitat Conservation and Management – Update (DPI, 2013)
	NSW State Groundwater Dependent Ecosystem Policy (DPI Water)
	Risk Assessment Guidelines for Groundwater Dependent Ecosystems (DPI Water)
	Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (DPI)
	Fisheries Management Act 1994
Heritage	
	The Burra Charter (The Australia ICOMOS charter for places of cultural significance)
	Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH, 2011)
	Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010)
	Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW (OEH)
	NSW Heritage Manual (Heritage Office and Department of Urban Affairs and Planning , 1994)
	Assessing Heritage Significance (NSW Heritage Office, 2001)
	Statements of Heritage Impact (Heritage Office and Department of Urban Affairs and Planning , 2002)
Air	
	Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA 2016)
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC, 2005)
	Technical Framework – Assessment and Management of Odour from Stationary Sources in NSW (DEC, 2006)
	National Greenhouse Accounts Factors (Commonwealth)
Noise, Vibration and Blasting	
	NSW Noise Policy for Industry (EPA)
	NSW Road Noise Policy and associated Application Notes (EPA)
	Interim Construction Noise Guideline (DECCW, 2009)
	Assessing Vibration: a Technical Guideline (DEC, 2006)
	German Standard DIN 4150-3: Structural Vibration – effects of vibration on structures
	Technical Basis for Guidelines to Minimise Annoyance Due to Blasting Overpressure and Ground Vibration (ANZECC, 1990)
Transport	
	Guide to Traffic Generating Projects (RMS)
	Road Design Guide (RMS) & relevant Austroads Standards
	Austroads Guide to Traffic Management Part 12: Traffic Impacts of Project
Visual	
	AS4282-1997 Control of the obtrusive effects of outdoor lighting
Hazards and Risks	
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Project
	Hazardous and Offensive Project Application Guidelines – Applying SEPP 33
	Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis
	Planning for Bushfire Protection (NSW RFS)
Waste	
	Waste Classification Guidelines (EPA)
Environmental Planning Instruments – General	
	State Environmental Planning Policy (State and Regional Development) 2011
	State Environmental Planning Policy (Infrastructure) 2007
	State Environmental Planning Policy (Three Ports) 2013
	State Environmental Planning Policy (Coastal Management) 2018

Wollongong Local Environmental Plans 2009

Relevant Water Sharing Plans (available at <http://www.water.nsw.gov.au>)
