



Preliminary Environmental Assessment

Port Kembla Gas Terminal

Australian Industrial Energy

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1. Introduction

1.1 Background

Australian Industrial Energy (AIE) proposes to develop the Port Kembla Gas Terminal. The project involves the development of a liquefied natural gas (LNG) import terminal at Port Kembla, south of Wollongong in New South Wales. The project will be the first of its kind in NSW and provide a simple, flexible solution to the State's gas supply challenges.

NSW currently imports more than 95% of the natural gas it uses, with the majority of supplies coming as interstate supplies from Victoria and South Australia. In recent years, gas supplies to the Australian east coast market have tightened, resulting in increased natural gas prices for both industrial and domestic users. Several recent economic studies have predicted significant future gas shortfalls for NSW by 2022.

The Port Kembla Gas Terminal provides an immediate solution to address predicted shortages and will result in considerable economic benefits for both the Illawarra region and NSW. The project will have capacity to deliver 100 petajoules of natural gas, equivalent to more than 70% of NSW gas needs and provide between 10 to 12 days of natural gas storage in case of interstate supply disruption. LNG will be sourced from worldwide suppliers and transported by LNG carriers to the gas terminal at Port Kembla. The LNG will then be re-gasified for input into the NSW gas transmission network.

The project has been declared critical state significant infrastructure in accordance with section 5.13 of the *Environmental Planning and Assessment Act, 1979* (EP&A Act) and Schedule 5 of the State Environmental Planning Policy (SEPP) State and Regional Development. An Environmental Impact Statement (EIS) is required to support the application for approval for determination by the NSW Minister for Planning.

1.2 Project overview

1.2.1 Objectives

Key objectives for the project are to:

- Introduce a new source of competitively priced gas to meet predicted supply shortfalls and help put downward pressure on prices
- Provide gas security to NSW with ability to supply more than 70% of the State's gas needs
- Provide long term contracts to industrial users and ability to meet 100% of the State's industrial demand (manufacturers, power stations, hospitals, small businesses etc)
- Help support the 300,000 jobs across NSW, and the 15,000 jobs in the Illawarra, which rely on the competitive, reliable supply of natural gas
- Support the diversification and future growth of Port Kembla.

1.2.2 The project

The Port Kembla Gas Terminal (the project) comprises the development of a LNG import terminal and incorporates four key components. All components are proposed to be located within industrial land declared under the State Environmental Planning Policy (Three Ports) and include:

• LNG carrier vessel – there are hundreds in operation transporting LNG from production facilities to demand centres globally.

- Floating storage and regasification unit (FSRU) a vessel which will be moored at berth 101 on the eastern side of the inner harbour at Port Kembla. There are around 30 of these currently in operation worldwide with a further 75 ordered or in feasibility planning.
- Wharf facilities such as offloading arms or hoses which transfer gas from the FSRU into the pipeline.
- Pipeline a short underground gas pipeline connection will be constructed from Berth 101 to the existing east coast gas transmission network at Cringila.

At present it is envisaged that an LNG shipment will be required every 2 - 3 weeks to provide for an annual supply of up to 100PJ of gas. Supply could be increased further to around 140 – 150 PJ per annum through a slight increase in LNG delivery schedules and pipeline upgrades.

It will take 10 - 12 months to complete construction and other works in order to start operations for the project and subject to the timing of approval processes, it is possible to have first gas by early 2020.

The estimated capital cost of the development is between \$200 and \$300 million.

In discussions with NSW Ports they have confirmed that the establishment of a LNG import terminal at Port Kembla is consistent with their strategic plan outlined in *Navigating the Future – NSW Ports' 30 Year Master Plan*. AIE has been working closely with NSW Ports and the Port Authority to ensure neither the construction, nor the ongoing operation of the LNG import terminal would negatively affect other port users or the wider community.

1.3 The proponent

AIE was formed in 2017 by a consortium of Australian and international companies with extensive global expertise and experience in the energy sector. The consortium consists of:

- **Squadron Energy** a privately owned energy company forming part of the Minderoo Group, with a track record of world class natural resource projects across Australia.
- Marubeni Corporation a major Japanese trading and investment business with significant energy sector expertise and operations and interests in over 66 countries including LNG import terminals, gas pipelines and power investments.
- JERA Co Inc a joint venture between Tokyo Electric and Chubu Electric. JERA is the largest buyer of LNG in the world (~10 -15% of the global market and operates eight import terminals, is an equity owner in four Australian LNG export projects, and operates a fleet of LNG transport ships and 70GW of power generation.

1.4 Purpose of this document

Submission of this Preliminary Environmental Assessment (PEA) represents the initiation of the environmental assessment and engagement process to support the critical SSI application. This report has been prepared as part of the request to the NSW Department of Planning and Environment (DP&E) to receive the Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an EIS under Division 5.2 of the EP&A Act.

This report provides an outline of the site setting, a description of the project, a review of permissibility and legislative framework, a preliminary environmental risk screening to identify and prioritise potential environmental impacts and an outline of the stakeholder engagement activities proposed for the project.

2. Site Setting

2.1 Port Kembla

Port Kembla is a deep water harbour located in the Illawarra region, approximately three kilometres south of the Wollongong Central Business District and 80 kilometres south of Sydney. The port operates across two harbours, consisting of an inner and outer harbour. NSW Ports is responsible for port infrastructure at the port, while the NSW Port Authority manage functions including harbour control, vessel tracking, pilotage and navigation.

There are a total of 18 berths at Port Kembla with services ranging from motor vehicle imports, grain and coal exports, general cargo facilities, dry bulk and break bulk facilities and bulk liquid facilities as shown on Figure 2-1.

Two grain terminals operate on the northern side of the Inner Harbour along with bulk liquid facilities and a number of multi-purpose berths. BlueScope Steelworks operate five berths on the western side of the Inner Harbour and the Port Kembla Coal Terminal (PKCT) is a coal export facility located on the eastern side of the Inner Harbour operating from two berths.

Six berths operate in the Outer Harbour for use in fuel discharge and loading, bulk and break bulk cargo including copper concentrate, fertiliser, clinker, pulp/saw logs and steel products. The outer harbour redevelopment project has also been approved and involves reclamation and dredging to enable additional port facilities to be developed in the Outer Harbour.

2.2 Berth 101

B101 is proposed for use as part of the project and is located between B102 and "the Cut" shipping channel providing access to the Inner Harbour. B101 is currently operated by the PKCT and was most recently utilised as an off-loading wharf for materials handling equipment, but does not currently have any regular use with the majority of coal exports operating out of B102.

Land use surrounding B101 is predominantly heavy industrial or special uses associated with port operations. Wollongong Sewage Treatment Plant is located to the north of the coal export facility.

The closest residential properties to Berth 101 are located approximately two kilometres to the north in Coniston, to the west in Cringila and to the south at Port Kembla and Warrawong.

The final pipeline alignment to connect the FSRU with the existing gas transportation network at Cringila is still being determined and is anticipated to pass through a predominantly industrial setting.

2.3 Transport and access

Springhill Road and Masters Roads are the two main vehicular traffic routes connecting Port Kembla to the regional road network including the M1 Princes Motorway. Tom Thumb, Springhill and Masters Roads all carry a high level of heavy vehicle traffic due to their direct link to and from Port Kembla. Tom Thumb Road services the existing port facilities including the PKCT.

The rail network within the port precinct consists of rail lines, sidings and loops. The Port Kembla rail network links to the Illawarra and Moss Vale-Unanderra rail line, managed by the NSW Government and ARTC respectively. The Illawarra Line is a shared passenger and freight rail line.



Figure 2-1 Port Kembla land use

3.1 Overview

The project includes the development of a LNG import terminal comprising an LNG carrier, an FSRU, wharf facilities and a pipeline to connect to the existing gas network. Implementation of the project will include the following elements:

- Demolition, excavation and dredging of about 620,000 cubic metres of material at B101 and to the south east of the existing berth pocket.
- Transport and placement of dredge material to be used for the reclamation in the outer harbour at Port Kembla or elsewhere.
- Construction of a new berth pocket south-east of the existing B101 to accommodate side by side mooring of an LNG carrier and the FSRU.
- Installation of mooring facilities and an onshore receiving facility (ORF) including high pressure gas loading arms or hoses, connecting the FSRU to the high pressure gas pipeline.
- A new gas pipeline commencing at the terminal and connecting to the existing gas transmission pipelines at the Port Kembla meter station located at Cringila.
- Development that is ancillary to the above, including access roads, fencing, safety and communications infrastructure.
- Maintenance and operation of the mooring, wharf and LNG handling facility, as well as the FSRU vessel while it is moored in Port Kembla.

Advisian have been engaged to undertake the Front End Engineering Design (FEED) and GHD have been engaged to support AIE with the environmental assessment and stakeholder engagement process. The project scope outlined in this section is indicative and based upon the level of design and construction planning currently available as part of the FEED study.

The scope of work will continue to develop as more engineering and environmental assessment work is completed and will benefit from input from stakeholders and the community. Any changes in scope will be considered as the environmental impact assessment process continues and will be fully documented in the EIS.

3.2 Construction

3.2.1 LNG Terminal

Berth

Construction of the project will require both deepening and widening of the berth pocket at the existing B101 location and disposal of dredge material. This will enable the FSRU vessel of around 300 metres in length to be permanently moored at B101 and enable LNG carriers of equivalent length be berthed alongside to allow the unloading of LNG. The LNG carriers will also be angled in to minimise any interference with vessels entering or exiting from the Inner Harbour as shown on Figure 3-1.



Figure 3-1 Indicative LNG import facility layout

The close proximity of the turning basin to the existing berth pocket and wharf, requires land excavation to maintain an adequate vessel separation of around 50 metres between the theoretical turning basin and the moored LNG carriers. The assumed vessel separation distance will be refined during the detailed design stage of the project and in conjunction with the Port Authority.

The berth construction is likely to consist of a piled tubular steel wall tied back to a piled steel anchor wall with steel tie rods as shown on Figure 3-2. This is a common method of wharf construction within Port Kembla and is suitable for situations where there are space constraints both seaward and landward of the wharf. A quay wall will also minimise the volume of excavation and dredging required for the project and associated sediment disposal requirements.



Figure 3-2 Indicative quay wall berth cross section

An island berth may also be considered subject to advice from NSW Ports, however it is noted that more land is required to be excavated to build the revetment and there will be a longer construction program than the quay wall option.

Dredging and excavation

The quay wall construction will require the excavation and dredging of approximately 620,000 m³ of earth. Approximately 100,000 m³ would be used on site to fill on top of the tie rods and the remainder is proposed be used as part of the reclamation in the Outer Harbour.

It is currently assumed that the land would be excavated from the waterside towards the landside, as this would allow the spoil to be placed onto barges and transferred to the reclamation area.

The dredging would be carried out using mechanical excavators, and clamshell grab on a barge, as opposed to a suction style dredger to minimise the potential mobilisation of sediments within the harbour. Contamination investigations will be undertaken to determine management requirements and final disposal options for the excavated and dredged material.

Mooring Infrastructure

The mooring infrastructure will allow for the FSRU to be moored permanently at the berth for the duration of the project. The mooring infrastructure would comprise the following:

- Quick Release Hooks (QRHs) as required to attach mooring lines.
- The quay wall cope beam.
- Independent mooring dolphins, which shall support QRHs.
- Fenders as required.

A typical section of the proposed mooring dolphin is provided in Figure 3-3 below.



Figure 3-3 Typical cross section of a mooring dolphin

Topside port infrastructure

The LNG import terminal facility at the berth will provide interface between the gas supply from the FSRU and the connection to the onshore gas pipeline. Elements of the topside port infrastructure will include:

- High pressure gas interconnection.
- Communication interconnection.
- High Integrity Pressure Protection (HIPP) system.
- Pipeline inspection gauge (Pig) launcher.
- Ancillary operational facilities.

3.2.2 Gas transmission pipeline

A new gas transmission pipeline would be constructed commencing at B101 and connecting to a spurline from the Eastern Gas Pipeline (EGP) at an existing meter station at Cringila. A number of potential pipeline alignments are currently being investigated for the installation of the pipeline.

The preferred alignment is likely to involve construction using traditional trench methods, skirting through the industrial port precinct as shown on the northern alignment as shown on Figure 3 4. Road and rail crossings will be typically be traversed using directional drilling to minimise disruption to existing transport networks.

Alternative alignments under investigation include a central alignment involving a single directional drill directly under the harbour to the Cringila meter station. A southern alignment involving a series of directional drills and traditional trenching through the southern areas of Port Kembla is also shown on Figure 3 4.

Construction of the pipeline will be primarily restricted to previously disturbed sites and road verges within the Port Kembla industrial precinct and have a length between two and seven kilometres dependent upon the preferred route. The final alignment will be confirmed following an investigation of the feasibility of the directional drilling operations and a single preferred alignment presented in the EIS.

Regardless of the final route, any pipeline will be designed and constructed to Australian standard AS2885, which is the standard applicable to the design, construction, testing, operations and maintenance of gas pipelines of this nature.



Metres Map Projection: Transverse Mercator Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 56



Potential gas transmission pipeline alignment

Date 05/07/2018

FIGURE 3.4

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3.3 **Operation**

The FSRU will have a LNG storage capacity ranging from 125,000 m³ to 175,000m³ and be semi permanently moored at Berth 101 in Port Kembla.

An FSRU is similar in concept to an LNG carrier that has onboard capability to convert LNG back into a gas. The LNG carriers will arrive at the harbour every two to three weeks, dock alongside the FSRU and unload their cargoes into the FSRU as shown in a typical arrangement in Figure 3-5.



Figure 3-5 Typical FSRU arrangement at a jetty

The FSRU has four key operational elements including:

- 1. Facilities to enable LNG transfer from the LNG Carrier.
- 2. LNG Storage.
- 3. Boil Off Gas management.
- 4. LNG regasification and high pressure gas send-out.

The LNG carrier will berth alongside the FSRU. The LNG will be transferred from the carrier to the FSRU via cryogenic loading arms or hoses, which are able to withstand the -161 degrees Celsius temperature of the LNG. The offloading process from the LNG carrier is expected to take around 24 hours.

On both the LNG carrier and the FSRU, the LNG is stored in double-hulled tanks specially designed and constructed to prevent leakage or rupture. These tanks are insulated, as LNG needs to be kept at a temperature of around -161 degrees Celsius to stay in a liquid state.

LNG within the FSRU produces vapour known as Boil-Off Gas (BOG) which is typically used as fuel for the FSRU power generators, reliquefied back into the tanks or sent as sales gas into the pipeline.

The key operation of an FSRU is to vaporise LNG back to gas at required flows and pressure. LNG is pumped to high pressure by a combination of in-tank pumps and high pressure booster pumps located on the deck. The high pressure LNG is sent underflow control to a vaporiser which vaporises the LNG then heats the gas, via the use of sea water. The heated gas flows through measuring meters and is then transferred to shore via high pressure loading arms or hoses.

The seawater used in the regasification process is then released back into the harbour. This water will be around 7° Celsius cooler than the ambient water temperature in the harbour. Studies will be carried out as part of the EIS to determine a suitable location for the discharged seawater and to ensure the cooler water is recirculated appropriately within the receiving waters.

4. Legislative Framework

4.1 Introduction

This section sets out the key planning and environmental regulatory framework applicable to the project, including the identification of relevant environmental planning instruments and key development approval requirements. Both NSW and Commonwealth legislative requirements are identified.

4.2 Environmental Planning and Assessment Act

4.2.1 Overview

The key legislation in NSW for regulation of the use of land is the EP&A Act and the Environmental Planning and Assessment Regulation (EP&A Regulation). The EP&A Act institutes a system for environmental planning and assessment, including approvals and environmental impact assessment requirements for proposed developments.

The EP&A Act contains three key parts that impose requirements for planning approval. These include:

- Part 4 provides for the assessment and approval of 'development' that requires development consent from the local council, a regional planning panel or the NSW government for development which is classed as State Significant Development (SSD).
- Part 5 (Division 5.1) provides for the environmental assessment of 'activities' that do not require approval or development consent under Part 4.
- Part 5 (Division 5.2) provides for control of State Significant Infrastructure (SSI) including Critical SSI.

The need or otherwise for consent for a new development application is set out in environmental planning instruments as described below.

4.2.2 Environmental Planning instruments

State Environmental Planning Policy (State and Regional Development)

State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP) identifies development that is considered to be of state significance and includes provisions for SSD and SSI.

The SRD SEPP provides for the declaration of development to be critical SSI in accordance with the provisions of Section 5.13 of the EP&A Act. Critical SSI is development, which is in the opinion of the Minister for Planning, considered to be essential to the State for economic, environmental or social reasons.

The Port Kembla Gas Terminal has been declared as critical SSI and is listed in Schedule 5 of the SRD SEPP. The project therefore:

- a. may be carried out without development consent under Part 4 of the EP&A Act, and
- b. is declared to be State significant infrastructure for the purposes of the EP&A Act if it is not otherwise so declared, and
- c. is declared to be critical State significant infrastructure for the purposes of the EP&A Act.

Subject to section 74 (1) of the EP&A Act, in the event of an inconsistency between this Policy and another environmental planning instrument, this Policy prevails to the extent of the inconsistency.

State Environmental Planning Policy (Three Ports)

State Environmental Planning Policy (Three Ports) 2013 (Three Ports SEPP) provides a consistent planning regime for the development and delivery of infrastructure on land in Port Botany, Port Kembla and the Port of Newcastle and includes the identification of certain development as SSD or SSI.

The project falls within the Port Kembla land application map under the Three Ports SEPP and the provisions of the policy therefore apply to the project. The import terminal is located on land zoned SP1 Special Activities and the gas transmission line will span both SP1 Special Activities and IN3 Heavy Industrial zones. The project meets the definition of a port facility in accordance with the SEPP and is considered to be consistent with the objectives of the respective land zonings under the policy.

The project is permissible with consent under the provisions of the Three Ports SEPP. The project would also meet the definition of SSD in accordance with Clause 27 of the Three Ports SEPP as it is located within the Port Kembla lease area, is permissible with consent, has a capital investment value of more than \$100 million dollars and would otherwise be considered a designated development.

However, the project has been declared critical SSI in accordance with Clause 16 of the SRD SEPP as discussed above. The project will therefore be assessed in accordance with Division 5.2 of the EP&A Act and can be undertaken without the need for development consent under Part 4 of the EP&A Act.

State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP) aims to facilitate the effective delivery of infrastructure across NSW and allows for a range of developments to be permitted with and without consent.

Division 9 of the Infrastructure SEPP includes consent requirements for gas transmission or distribution and pipelines. Clause 53(1) states that development for the purpose of a pipeline may be carried out by any person without consent on any land if the pipeline is subject to a licence under the *Pipelines Act 1967* or a licence or authorisation under the *Gas Supply Act 1996*. A licence is anticipated to be required under the Pipelines Act and the proposed pipeline is therefore considered permissible without consent.

Division 13 of the Infrastructure SEPP applies to Port, wharf or boating facilities, but it is noted that the provisions of this division do not apply to development on land that the Three Ports SEPP applies, with the exception of certain areas in the City of Newcastle. Division 13 is therefore not applicable to the project.

Division 15 of the Infrastructure SEPP applies to railways and includes provisions for development in or adjacent to rail corridors. Clause 86 relates to development that includes penetration of land within, below or above a rail corridor and includes the need for notification of the development to the rail authority. The project includes a gas pipeline, which will need to traverse the rail corridor. This is likely to be completed by directional drilling and will trigger the rail authority notification requirements under the policy.

State Environmental Planning Policy (Coastal Management) 2018

The aim of State Environmental Planning Policy (Coastal Management) 2018 (Coastal Management SEPP) is to promote an integrated and co-ordinated approach to land use planning in the coastal zone in a manner consistent with the objects of the Coastal Management Act, 2016.

Clause 7 of the Coastal Management SEPP states the policy does not apply to land within the lease area within the meaning of the Three Ports SEPP. The proposed LNG import terminal will be located within the defined Port Kembla lease area and the pipeline will extend through industrial zones within the Port Kembla land application area. The coastal management principles and assessment considerations in the policy and the Coastal Management Act will be considered where appropriate through the development of the project.

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development

State and Environmental Planning Policy No 33 – Hazardous and Offensive Development (SEPP 33) requires the consent authority to consider particular matters in determining a development application for a project that is a potentially hazardous industry or potentially offensive industry.

A hazard and risk assessment will be undertaken as part of the EIS and include the identification and assessment of potential safety hazards associated with the construction and operation of the project.

State Environmental Planning Policy 55 – Remediation of Land

SEPP 55 provides for a statewide planning approach to the remediation of contaminated land and aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment by:

(a) specifying when consent is required, and when it is not required, for a remediation work,

(b) by specifying certain considerations that are relevant in rezoning land and in determining development applications in general and development applications for consent to carry out a remediation work in particular,

(c) by requiring that a remediation work meet certain standards and notification requirements.

In determining a development application, a consent authority is required to consider if the land is contaminated and if contamination is identified is the land suitable in its contaminated state for the purpose for which the development is proposed to be carried out and if any remediation is required to make the land suitable for that purpose.

Contamination investigations are proposed to be undertaken as part of the EIS to understand the extent of existing contamination and determine treatment and disposal options for management of sediments.

Wollongong Local Environmental Plan 2009

The Wollongong Local Environmental Plan (LEP) 2009 provides local environmental planning provisions within the designated land application area for the LEP in the Wollongong local government area (LGA). However, the land covered in the Three Ports SEPP does not form part of the land falling under the provisions of the Wollongong LEP. Depending upon the final alignment of the gas pipeline, there is potential that a small section of the pipeline will fall under the provisions of the Wollongong LEP. However, the pipeline is permitted without consent in accordance with provisions of the Infrastructure SEPP and the project will be assessed as a critical SSI in accordance with the State and Regional Development SEPP.

4.2.3 Approval Pathway

The Port Kembla Gas Terminal has been declared critical SSI in accordance with Section 5.13 of the EP&A Act and Schedule 5 of the SRD SEPP. The Minister for Planning is the consent authority and the project will be assessed in accordance with the provisions of Division 5.2 of the EP&A Act.

This report has been prepared as part of the supporting documentation for the SSI application to obtain the SEARs for the preparation of an EIS in accordance with section 5.16 of the EP&A Act.

A detailed EIS will subsequently be prepared for approval of the project in accordance with section 5.19 of the EP&A Act.

4.3 Other NSW legislation

4.3.1 Protection of the Environment Operations Act

The objectives of the *Protection of the Environment and Operations Act 1997* (PoEO Act) are to protect, restore and enhance the quality of the environment, in recognition of the need to maintain ecological sustainable development.

The PoEO Act provides for an integrated system of licensing and contains a core list of activities requiring Environmental Protection Licences (EPL) from the Environmental Protection Authority (EPA). These activities are called 'scheduled activities' and are listed in Schedule 1 of the PoEO Act.

Clause 19 of Schedule 1 defines extractive industries that are considered scheduled activities and includes water based extraction activities that involves the extraction, processing or storage of more than 30,000 tonnes per year of extractive materials. The project will involve dredging of around 620,000 m³ of extractive materials and will therefore constitute a scheduled activity requiring an EPL for construction of the terminal.

Clause 9 of Schedule 1 applies to chemical storage facilities and includes developments with capacity to store more than 200 tonnes of liquefied gases. The FSRU will be permanently moored at Berth 101 and will therefore likely constitute a scheduled activity requiring an EPL for the operation of the project.

In accordance with Section 5.24 of the *EP&A Act*, an EPL cannot be refused if it is necessary for carrying out an approved SSI project if it is consistent with the approval.

4.3.2 Pipelines Act 1967

Sections 12 and 13 of the Pipelines Act 1967 (Pipelines Act) outline the licensing application requirements for pipelines. Under Section 11 of the Pipelines Act, a licence is required to

- Commence, or continue, the construction of a pipeline.
- Alter or reconstruct a pipeline.
- Operate a pipeline.

A licence under the Pipelines Act is required for the construction and operation of the proposed gas transmission pipeline.

4.3.3 Fisheries Management Act 1994

The objectives of the Fisheries Management Act 1994 (FM Act) are to conserve, develop and share the fishery resources of NSW for the benefit of present and future generations. Part 7 of the FM Act requires a permit for a number of activities, including those involving dredging and

reclamation work and those involving harm to marine vegetation. The project will involve dredging of around 620,000 m³ with material anticipated to be primarily disposed of within the Outer Harbour reclamation area. However, in accordance with Section 5.23 EP&A Act, a permit under section 201, 205 or 219 of the FM Act is not required for approved SSI.

The potential impacts associated with dredging and disposal of sediments will be investigated as part of the EIS.

4.3.4 Water Management Act 2000

The *Water Management Act 2000* (WM Act) is intended to ensure that water resources are conserved and properly managed for sustainable use benefitting both present and future generations. It is also intended to provide a formal means for the protection and enhancement of the environmental qualities of waterways and their catchments.

Part 2 of the WM Act applies to the requirement to obtain a licence for the "taking of water" from a water source. An access licence entitles its holder to specified shares in the available water within a specified water management area or from a specified water source. It enables the licence holder to take water from the environment in accordance with specified rates and conditions under the terms of the licence.

Part 3 of the WM Act specifies approval requirements for water use, water management works approvals and activity approvals. There are two kinds of activity approvals including controlled activity approvals and aquifer interference approvals.

The project is not anticipated to require major dewatering of water from a water source and is unlikely to trigger the need for a water use approval or a water management works approval under section 89 or section 90 of the WM Act. It is noted that water use or water management works approvals are not required for SSI in accordance with Section 5.23 of the EP&A Act.

Controlled activity approvals confer a right for the holder to carry out a specified controlled activity on waterfront land which is defined as land within 40 metres of a river, lake, estuary or shoreline.

An aquifer interference approval may be required for any works that involve:

- a. the penetration of an aquifer;
- b. the interference with water in an aquifer;
- c. the obstruction of the flow of water in an aquifer;
- d. the taking of water from an aquifer in the course of carrying out mining, or any other activity prescribed by the regulations;
- e. the disposal of water from an aquifer as referred to in paragraph (d).

The project will involve excavation within 40 metres of the shoreline, however activity approvals under Section 91 of the WM Act are not required for SSI in accordance with Section 5.23 of the EP&A Act. There is potential that excavation and directional drilling for installation of the pipeline and creation of the new berth will intercept water within an aquifer. However, it is understood that aquifer interference approvals are not switched on under the WM Act and an approval will therefore not be required.

4.3.5 Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act) commenced on 25 August 2017 and has repealed the *Threatened Species Conservation Act 1995*. The BC Act aims to conserve biodiversity at a bioregional and state scale and lists a number of threatened species, populations and ecological communities to be considered in deciding whether there is likely to

be a significant impact on threatened biota, or their habitats. The project would be unlikely to have a significant impact on any threatened species, populations or ecological communities listed under the Biodiversity Conservation Act, however a biodiversity development assessment report will be undertaken as part of the EIS in accordance with section 7.9 of the BC Act.

4.3.6 Biosecurity Act 2015

The *Biosecurity Act 2015* (Biosecurity Act) repealed the *Noxious Weeds Act 1993* on 1 July 2017. The Biosecurity Act specifies the duties of public and private landholders as to the control of priority weeds. Under this Act, priority weeds have been identified for Local Government Areas and assigned duties for control. Part 3 provides that any person who deals with biosecurity matter (ie weeds) and who knows, or ought reasonably to know, the biosecurity risk posed or likely to be posed by the biosecurity matter has a duty to ensure that, so far as is reasonably practicable, the biosecurity risk is prevented, eliminated or minimised.

As such, if present, priority weeds located on the project site should be assessed and controlled.

4.3.7 Heritage Act 1977

The *Heritage Act* 1977 (Heritage Act) is concerned with all aspects of heritage conservation ranging from basic protection against indiscriminate damage and demolition of buildings and sites, through to restoration and enhancement.

Heritage places and items of particular importance to the people of NSW are listed on the State Heritage Register. Approval under section 60 of the Heritage Act is required for any direct impacts on a state listed heritage item. Approval from the NSW Heritage Council under section 139 of the Heritage Act is required prior to the activities likely to disturb a relic while section 140 of the Heritage Act provides for the application for a permit.

The project is anticipated to have a low potential to impact upon any identified heritage item or relic protected under the Heritage Act. Approval under Part 4 or an excavation permit under section 139 of the Heritage Act is also not required for an approved SSI.

4.3.8 National Parks and Wildlife Act 1974

The National Parks and Wildlife Act 1974 (NPW Act) provides for the protection of Aboriginal objects (sites, objects and cultural material) and Aboriginal places. Under the NPW Act, an Aboriginal object is defined as: any deposit, object or material evidence (not being a handicraft for sale) relating to indigenous and non-European habitation of the area that comprises New South Wales, being habitation both prior to and concurrent with the occupation of that area by persons of European extraction, and includes Aboriginal remains.

An Aboriginal place is defined under the NPW Act as an area which has been declared by the Minister administering the Act as a place of special significance for Aboriginal culture. It may or may not contain physical Aboriginal objects.

It is an offence under Section 86 of the NPW Act to 'harm or desecrate an object the person knows is an Aboriginal object'. It is also a strict liability offence to 'harm an Aboriginal object' or to 'harm or desecrate an Aboriginal place', whether knowingly or unknowingly. Section 87 of the NPW Act provides a series of defences against the offences listed in Section 86 which includes if the harm was authorised by and conducted in accordance with the requirements of an Aboriginal Heritage Impact Permit (AHIP) under Section 90 of the NPW Act.

The project footprint will be restricted to a highly disturbed industrial precinct primarily within reclaimed land within the Port Kembla land application area. It is proposed that the potential for impacts upon Aboriginal cultural heritage will be considered through a due diligence process in

the EIS. It is also noted that an AHIP permit under Section 90 of the NPW Act is not required for approved SSI in accordance with Section 5.23 of the EP&A Act.

4.3.9 Roads Act 1993

Section 138 of the *NSW Roads Act 1993* (the Roads Act) requires applicants to obtain consent from the relevant roads authority for the erection of a structure, or the carrying out of work in, on or over a public road, or the digging up or disturbance of the surface of a road.

The project will require installation of a pipeline to connect the LNG import terminal with the existing gas metering station at Cringila. The pipeline will likely be installed through a combination of traditional trenching methods and directional drilling within the Port Kembla industrial precinct. The pipeline will pass along the edge of a number of road verges and directional drilling would be adopted to minimise disruption to traffic for major road crossings. A section 138 consent is likely to be required for the project.

4.4 Commonwealth Legislation

4.4.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the Australian Government's central piece of environmental legislation that provides a legal framework to protect and manage environmental values considered to be of national environmental significance.

The EPBC Act requires approval from the Commonwealth Minister for the Environment and Resources for actions that may have a significant impact on listed matters of national environmental significance (MNES).

The project is considered an "action" which is broadly defined under the EPBC Act to include a project, development, undertaking, activity or series of activities. It is the responsibility of the applicant proposing to undertake an action to initially consider whether the proposal is likely to have a significant impact on any MNES. If the applicant considers there is potential for significant impacts upon any matters protected under the EPBC Act, then a referral is required to be submitted to the Minister for the Environment. Developments considered likely to result in significant impacts are defined as "controlled actions" and require assessment and approval under the EPBC Act.

Consideration of potential impacts upon listed threatened species and communities and any other MNES potentially impacted by the project will be undertaken as part of the EIS.

A referral will be submitted to the Minister for the Environment if any unexpected impacts are identified through the EIS assessment process, which potentially constitute a controlled action.

4.4.2 Environment Protection (Sea Dumping) Act 1981

The loading and dumping of waste at sea is regulated under the Environment Protection (Sea Dumping) Act 1981 (the Sea Dumping Act). Permits are required for all sea dumping operations with Commonwealth waters.

The project includes the excavation and dredging of about 620,000 cubic metres of material and transportation and placement of the excavated and dredged material within the Outer Harbour of Port Kembla. The final disposal location will be subject to a review of the capacity to receive material as part of the outer harbour reclamation works.

If ocean disposal of the dredged material is determined to be required as part of the project, then a sea dumping permit would be prepared and lodged with the Department of the Environment and Energy (DoEE).

5. Key Environmental issues

5.1 Identification

The key project-related issues warranting detailed assessment in the EIS will be identified through:

- The existing environmental context and surrounding locality.
- The legislative framework applicable to the project.
- The preliminary environmental risk screening undertaken as a part of this PEA.
- The outcomes of consultation to be undertaken with government agencies and other relevant stakeholders.

5.2 Environmental risk analysis

A preliminary environmental risk screening was undertaken to identify potential environmental impacts that may arise as a result of the proposed project.

The preliminary environmental risk screening was undertaken in the form of a preliminary, desktop-level risk assessment, to broadly assess the potential environmental risks that may arise as a result of the construction and operation of the project to identify key areas for the assessment.

The environmental risk screening involved:

- Identifying environmental aspects
- Identifying the source of potential risks associated with each of these aspects
- Identifying the potential impact associated with each risk
- Identifying priority issues for each aspect assessment as an aggregate of the constituent risks and impacts.

Table 5-1 provides the environmental risk analysis for the Project, it includes:

- A summary of the potential key impacts/risks
- Consideration of the priority for the assessment
- A discussion regarding the findings of the preliminary risk screening.

Table 5-1 Preliminary environmental risk screening results

| Environmental Aspect | Source Of Risk | Potential Impact | Priority Of Assessment | Discussion |
|-----------------------------|---|--|---------------------------|--|
| Hazard and Risk | Construction and operation of LNG import terminal and gas pipeline | Project safety hazards and associated risks to project personnel, members of the public, surrounding property (industrial, residential, commercial) and the biophysical environment. | High | The project will represent a new industrial land use at Port Kembla and will introduce a range of potential hazards to the locality. These include construction hazards, operational hazards, process hazards such as fire or explosion and marine specific hazards such as loss of control of LNG tankers while turning and berthing, vessel strike from nearby operating vessels, LNG spills, working in proximity to water. |
| | | | | A hazard and risk assessment will be completed as part of the EIS including modelling of worst case LNG loss of containment events that may lead to potential for fire or explosion. The assessment will be undertaken in accordance with SEPP 33 and the NSW Department of Planning Hazardous Industry Planning Advisory Papers. |
| Marine Ecology | Dredging and excavation of berth, sediment disposal in outer harbour, spills during construction and operation | Impacts upon listed marine biota associated with noise impacts from machinery, reduced water quality during dredging, light impacts from artificial lighting | Medium | A Preliminary review of existing studies indicate that marine values within the port environment are expected to be limited. An aquatic ecology survey was undertaken by Worley Parsons in May 2011 to support the Port Kembla Coal Terminal Berth 101 Upgrade Project and numerous marine investigations have been undertaken in the inner and outer harbours. |
| | | | | It is considered that the project area is unlikely to contain seagrass vegetation and would likely only support limited algae vegetation. It is also considered unlikely that the project area would provide suitable habitat for endangered or threatened species listed under the FM Act. |
| | | | | A marine ecology assessment will be undertaken as part of the EIS to validate the results of desktop searches and literature review and consider the impact of the project on marine biota. |
| Terrestrial Biodiversity | Construction and installation of berth and gas pipeline | Potential impacts upon threatened flora and fauna species, populations and ecological communities | Medium | The project site is located within a highly modified industrial setting and retains limited biodiversity values. The import facility will be located with a completely cleared area previously used as part of the coal terminal. The preferred pipeline alignment passes through an industrial setting and may result in minor disturbance to predominantly planted vegetation such as landscaping on road verges within the industrial precinct. |
| | | | | The potential pipeline alignments are proximate to known sensitive areas including potential habitat for a local population of Green and Golden Bell Frogs. |
| | | | | Selection of the potential pipeline alignments has been undertaken to avoid impacts upon known sensitive areas and a biodiversity assessment will be undertaken as part of the EIS in accordance with the Biodiversity Conservation Act and the EPBC Act. |

| Environmental Aspect | Source Of Risk | Potential Impact | Priority Of Assessment | Discussion |
|-----------------------------|---|--|---------------------------|--|
| Aboriginal heritage | Excavation and ground disturbance during construction of the LNG terminal and pipeline installation | Impacts upon previously undisturbed Aboriginal objects or cultural material | | Aboriginal shell middens and artefact scatter sites have been recorded nearby on coastal margins around Port Kembla. MM Beach and Hill 60, south of the project area, are also known to have historical associations as a camping area for Aboriginal people post European settlement. A local Aboriginal commercial fishing industry was also present nearby at Hill 60 and Fisherman's Beach between 1876 and World War II. |
| | | | Low | However, the disturbance footprint associated with the project has been heavily industrialised and subject to significant port development. These developments have resulted in considerable alteration to the existing land surfaces that are likely to have limited the potential survival of Aboriginal cultural material in these areas. |
| | | | | A due diligence assessment is proposed to be prepared in accordance with the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (OEH 2010). The Code, will assist in documenting the history of disturbance and assess Aboriginal heritage risk for the project. |
| Built and historic heritage | Excavation and ground disturbance during construction of the LNG terminal and pipeline installation | Impacts upon known heritage values or relics within the development footprint | | Searches of heritage listings for Port Kembla show a range of built or historic heritage values. There is a listing on the State Heritage Register (SHR) for the former World War II defences associated with Hill 60 and MM Beach, located south of the Breakwater Battery Museum. A range of industrial, domestic and commercial buildings are listed on the Wollongong Local Environmental Plan (LEP) 2009 and State Environmental Planning Policy (Three Ports) 2013 heritage mapping. |
| | | | Low | It is unlikely that any heritage values currently listed on any heritage mapping will be directly impacted by the proposed development. However there may be potential for historical heritage values to be present, either built or archaeological, particularly in regards to historical industrial uses surrounding Port Kembla's Inner Harbour. |
| | | | | Given the amount of dredging that has occurred throughout Port Kembla, movement of sediment caused by intensive shipping in addition to natural tidal movement, it is considered highly unlikely that any historic shipwreck material would be located and consequently there would be an extremely low risk of impact to historic shipwreck material. |
| | | | | A desktop assessment is proposed to be undertaken as part of the EIS to assist in to developing an understanding of the existing heritage values and identify the potential for further unrecorded heritage values. |

| Environmental Aspect | Source Of Risk | Potential Impact | Priority Of Assessment | Discussion |
|--------------------------|---|--|---------------------------|---|
| Air Quality | Construction activities of the berth and pipeline and emissions during operation of the LNG import terminal | Dust from demolition and earthworks and vehicle emissions during construction Operational emissions during LNG unloading and operation of the FSRU | Medium | Potential emissions during the construction and operation of the project are anticipated to have minimal potential to impact upon the surrounding locality due to the distance to the nearest sensitive receivers of around two kilometres. Any identified impacts are anticipated to be adequately managed through appropriate construction site management and environmental controls included in the design of the FSRU. An air quality assessment will be undertaken as part of the EIS in accordance with the NSW EPA Approved Methods for the Modelling and Assessment of Air Pollutants in NSW, the Technical Framework for the Assessment and Management of Odour from Stationary Sources in NSW and the PoEO Regulation 2010. |
| Noise and vibration | Construction activities of the berth and pipeline and emissions during operation of the LNG import terminal | Noise and vibration during construction Underwater noise from dredging and piling Operation noise during LNG unloading and operation of the FSRU | Medium | Background noise levels surrounding the site are elevated as a result of the existing industry at Port Kembla. Operational noise emissions are not anticipated to be significant and will be located around two kilometres from the nearest sensitive receivers. Construction activities have potential to impact upon the surrounding community, particularly for sections of the pipeline alignment traversing in proximity to residential properties. Road traffic noise is not anticipated to be significant during either construction or operation. A noise impact assessment will be undertaken as part of the EIS in accordance with the EPA's Interim Construction Noise Guideline, the NSW Road Noise Policy and the Noise Policy for Industry. Construction vibration impacts associated with human comfort would be assessed against Assessing Vibration: A Technical Guideline and the effect of vibration on structures would be assessed to the criteria in German Standard DIN 4150. |
| Traffic and transport | Additional vehicle movements during construction and operation of the facility | Impacts upon the safety or capacity of the road network | Medium | Springhill Road and Masters Road carry a high level of heavy vehicle traffic and provide a direct connection to the regional road network. Additional vehicle movements during construction and operation of the project are not anticipated to result in a significant impact upon the local or regional road network. Inclusion of a pipeline connection to the EGP will eliminate the need for ongoing vehicle movements for the transport of LNG and impacts during construction will be limited to the immediate road network surrounding the site. A traffic and transport assessment will be undertaken as part of the EIS in accordance with the RMS Guide to Traffic Generating Development and Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development. |

| Environmental Aspect | Source Of Risk | Potential Impact | Priority Of Assessment | Discussion |
|-------------------------|---|---|---------------------------|---|
| Water quality | Dredging, excavation and placement of dredged materials | Impacts to water quality including sedimentation and turbidity within harbour | | The proposed berth and sediment placement area are located within the disturbed environments of the Inner and Outer Harbour where existing water quality has been impacted by historical and ongoing industrial and port operations. |
| | during construction Trenching and directional drilling | Alteration of harbour hydrodynamics | | Given the disturbed existing environment and nature of the proposed activities, the project is expected have a low to medium risk of adverse impacts to water quality. |
| | during pipeline installation Shipping and return of cool sea water to harbour following use | | | The removal, handling and placement of dredged sediments is proposed to be undertaken in accordance with the management framework of the existing approvals for the dredging and reclamation activities associated with the Outer Harbour Development. Nevertheless an assessment will be undertaken to characterise the potential impacts associated with dredging and sediment placement activities, general land based construction works including berth construction and pipeline installation. |
| | in FSRU unit | | High | In accordance with the previous approval for the Outer Harbour Development, a conceptual assessment of plume dispersion and contaminant transport would be developed to allow consideration of the potential impact to water quality. Hydrodynamic modelling and field data validation was previously undertaken for the Outer Harbour Development in order to assess potential impacts to wave penetration, seiching and tidal discharge. Given that the proposed dredging works represent a minor change to the alignment of the harbour foreshore and the proposed sediment disposal represents approximately 10% of the volume and will be located within the approved footprint of the reclamation area, it is not considered necessary to undertake further numerical modelling or field trials. Following construction of the proposed berth the main impacts to water quality would be associated with shipping and FSRU operations. An assessment of risks during |

| Environmental Aspect | Source Of Risk | Potential Impact | Priority Of Assessment | Discussion |
|-------------------------|---|--|---------------------------|--|
| Site contamination | Dredging and excavation during construction Trenching and directional drilling during pipeline installation | Potential impacts to water quality associated with the mobilisation of contaminated sediments Potential impacts to the health of construction personnel and the surrounding environment | High | Port Kembla has a long history of industrial use, including land reclamation and filling, which has resulted in legacy contamination both within the land footprint and offshore areas. In addition to soil and sediment contamination, leaching of contamination from overlying fill materials and migration from up-gradient industrial sources, has resulted in contamination impact to groundwater beneath Port Kembla. Inner Harbour seabed materials comprise soft silty clay. Previous investigations have identified the presence of contaminated sediments including heavy metals, tributyltin (TBT) and polycyclic aromatic hydrocarbons (PAH) at concentrations above the nominated sediment quality guidelines. Sediments within the dredge footprint and soils to be excavated from the existing landside area adjacent to Berth 101 also have potential to include natural potential acid sulphate soils (PASS). A contaminated land assessment will be undertaken as part of the EIS to assess the presence and extent of contaminated sediments and groundwater and to determine treatment and disposal options and inform the excavation and dredge process. The assessment will be undertaken in accordance with SEPP 55 and EPA contaminated land guidance. |
| Visual | Construction activities Topside port infrastructure Berthing of FSRU and LNG carriers | Alteration to the landscape character of the Inner Harbour | Medium | The project represents a new land-use within the Inner Harbour of Port Kembla. The LNG import terminal will be visually integrated with the existing industrial setting and is not anticipated to result in significant visual impacts to surrounding sensitive receivers. A landscape character and visual impact assessment will be undertaken that considers the project from potentially sensitive visual points both in the immediate vicinity and the wider region. The assessment will examine the sensitivity of the landscape and the capacity to incorporate the project within the existing landscape setting. |
| Greenhouse gas | Fuel and energy consumption during construction and operation Emissions during LNG unloading and FSRU operation | Contribution to regional greenhouse emissions | Medium | Understanding the greenhouse gas emissions impact of the proposed LNG facility is important in assessing its ongoing viability in an increasingly uncertain domestic emissions policy environment. LNG Carriers and FSRU's are designed to minimise the potential for fugitive emissions and to utilise LNG as a fuel source where possible for on-board operations to minimise consumption of other fuels. A greenhouse gas assessment will be undertaken as part of the EIS to quantify the greenhouse gas emissions associated with the project. |

| Environmental Aspect | Source Of Risk | Potential Impact | Priority Of Assessment | Discussion |
|-------------------------|--|--|---------------------------|---|
| Socio-economic | Construction and operation of LNG import terminal | Regional and local economic benefits Impacts upon local amenity during construction and demand for community facilities | Medium | The Port Kembla site is highly developed with existing port and intermodal facilities. It is close to urban areas and local communities within the Wollongong LGA, including residents, businesses, community facilities and recreational areas. There may be community misconceptions or fears related to the proposal and transportation of liquefied natural gas. The socio-economic impact assessment will identify and assess the potential benefits and impacts of the proposal, and make recommendations to enhance benefits or reduce potential socio-economic issues and risks. |
| Waste | Waste handling and management during construction and operation | Waste generation including potentially contaminated soil and sediments during establishment of the berth | Medium | Sediments from the excavation and dredging area are proposed to primarily reused as part of the Outer Harbour reclamation. A contaminated land assessment will be undertaken as part of the EIS to assess the presence and extent of contaminated sediments and determine treatment and disposal options as described above. A waste management assessment will be undertaken as part of the EIS and will involve preliminary waste classification of likely waste streams and a description of the proposed management, recycling, recovery and disposal options for waste streams generated during construction and operation. |

6. Stakeholder engagement

AIE is committed to continuing stakeholder engagement during the approval process for the Port Kembla Gas Terminal, including during the preparation of the EIS. Stakeholder groups likely to have an interest in the project include:

- State government agencies, including DP&E, Department of Premier and Cabinet (DPC) - Office of Regional Development, Office of Environment and Heritage (OEH), Roads and Maritime Services (RMS) and EPA.
- NSW Ports, the Port Authority and other Port Kembla tenants
- Local Members of Parliament
- Wollongong City Council
- Port Kembla Harbour Environment Group
- Port Kembla Pollution Meeting
- Neighbourhood Forum 5 and 7
- Port Kembla Chamber of Commerce and Industry

- AdvantageWollongong, including
 University of Wollongong
- Illawarra Business Chamber (IBC)
- Illawarra Local Aboriginal Land Council
- i3net Illawarra Innovation Industry Network
- Australian Industry Group Illawarra (AiGroup)
- AusIndustry Illawarra and South Coast
- Regional Development Australia Illawarra
- local businesses
- general public
- media
- utility providers

Stakeholder engagement formally commenced with the introduction of the AIE project and its possible location to business stakeholders in late March 2018. The first roundtable event was held on the 27th of March, attended by a range of Port tenants, local gas exposed businesses and peak industry bodies.

Since then a further stakeholder event was held, co-hosted by AIE, i3net, IBC, AiGroup and AdvantageWollongong on the 16th of April. This was attended by a range of local government agencies, including Councils from further afield, such as the Shoalhaven Council, peak industry bodies and local businesses.

The announcement on the 4th of June selecting Port Kembla as the site for the LNG terminal over other Ports under consideration was attended by all of the peak industry bodies listed about, as well as the Lord Mayor of Wollongong and local and State media.

Since the site announcement of Port Kembla, the following activities have been undertaken:

- AIE website launched www.ausindenergy.com
- Factsheets produced printed and available on the website
- Email enquiry available on the website
- Ability to subscribe to forthcoming updates available in the website
- 1800 community enquiries number established
- preliminary response to community / stakeholder enquiries received via email

Additional activities planned include:

face-to-face briefings for all stakeholder groups, as regularly as required

- quarterly newsletter
- 2 or 3 broader Community Information sessions, the first anticipated by mid-August
- Frequently Asked Questions and additional Fact Sheets, as required
- on-going engagement with local media

Stakeholder consultation will continue throughout the planning approvals process and will include a range of formal and informal stakeholder engagement tools according to the particular needs of individual stakeholders. These will include phone calls, briefing sessions, meetings, community or drop-in sessions, newsletters and targeted stakeholder surveys.

Information will continue to be made available on AIE's website and will be regularly updated. Outcomes of engagement activities will be addressed in the EIS.

7. Conclusion

AlE proposes to develop the Port Kembla Gas Terminal, which involves the development of a LNG import terminal at Port Kembla. The project will have capacity to deliver 100 petajoules of natural gas, with LNG sourced from worldwide suppliers and transported by LNG carriers to the gas terminal at Port Kembla. The LNG will then be re-gasified for input into the NSW gas transmission network.

The project has been declared critical state significant infrastructure in accordance with Section 5.13 of the Environmental Planning and Assessment Act, 1979 (EP&A Act) and Schedule 5 of the State Environmental Planning Policy (SEPP) State and Regional Development. An Environmental Impact Statement (EIS) is required to support the application for approval for determination by the NSW Minister for Planning.

This PEA has been prepared to provide an overview of the Project and enable the DP&E to issue the SEARs for the preparation of the EIS.

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| Revision | Author | Reviewer | | Approved for Issue | | |
|----------|------------|----------|-----------|--------------------|-----------|------------|
| | | Name | Signature | Name | Signature | Date |
| 1 | D. Stewart | K Rosen | On file | K Rosen | On file | 10/07/2018 |
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