

Director-General's Requirements

Section 75F of the *Environmental Planning and Assessment Act 1979*

Project	MP10_0201 - Construction and operation of an approximately 280 kilometre length high pressure gas pipeline between Coolah and Newcastle. The pipeline would tie-in to the Proponent's proposed Narrabri to Wellington gas pipeline at Coolah and travel south east to connect with the Proponent's proposed liquefied natural gas (LNG) facility at Kooragang Island in Newcastle. The proposal also includes options for the development of short laterals to the Bayswater Power Station (to supply that power station with natural gas) and to the meter station at Hexham (to supply the domestic market with natural gas), which are also under consideration.
Site	Land between Coolah and Newcastle within the Maitland, Muswellbrook, Newcastle, Port Stephens, Singleton, Upper Hunter and Warrumbungle Local Government Areas.
Proponent	Eastern Star Gas Pipeline Pty Ltd
Date of Issue	10 February 2011
Date of Expiration	10 February 2013
General Requirements	<p>The Environmental Assessment (EA) must include:</p> <ul style="list-style-type: none"> • an executive summary; • a detailed description of the project including: proposed route and proposed connection points, including indicative details of the proposed LNG facility at Kooragang Island; details of construction and operation that clearly define the proposal corridor (including construction corridor width and final operational corridor width that will require ongoing maintenance) and ancillary infrastructure. The description should include watercourse crossing and infrastructure crossing methodology (including a list of each watercourse and infrastructure to be crossed by the pipeline), details of any upgrades to infrastructure (e.g. road or access improvements), and identify the need for and location of construction camps and other temporary construction facilities. Details of corridor rehabilitation and decommissioning must also be included. • consideration of any relevant statutory provisions including the consistency of the project with the objects of the <i>Environmental Planning and Assessment Act 1979</i> and relevant environmental planning instruments, plans and guidelines. • an assessment of the key issues outlined below, during construction, operation and decommissioning (as relevant). The EA must assess the worst case as well as representative impact for all key issues taking into account cumulative impacts from surrounding development (such as the proposed Narrabri to Wellington gas pipeline and proposed LNG facility at Kooragang Island), as relevant; • a draft Statement of Commitments detailing measures for environmental mitigation, management and monitoring for the project; • a conclusion justifying the project taking into consideration the environmental, social and economic impacts of the project; the suitability of the site; and the public interest; and • certification by the author of the Environmental Assessment that the information contained in the Assessment is neither false nor misleading.
Key Assessment Requirements	<p>The EA must include assessment of the following key issues:</p> <ul style="list-style-type: none"> • Strategic Planning and Project Justification – the EA must: <ul style="list-style-type: none"> → provide a strategic assessment (including justification) of the need, scale, scope and location of the project, in relation to capacity constraints within the existing Australian gas pipeline network, the location of gas reserves (including Narrabri Coal Seam Gas Project), and areas of gas demand and expected demand growth including the Bayswater Power Station and other potential users, and the strategic direction of the region and the State in relation to gas supply and demand, and greenhouse gas emission priorities and targets, and export demand; → include an analysis of the required capacity of the project, having regard to existing gas supplies and the potential for additional known reserves to be connected into the project;

- reflect a design philosophy to support the potential for domestic, commercial and industrial connection to gas supplies in major centres where feasible and appropriate in future; and
- identify the strategic and local benefits of the project.

- **Land Use, Socio-Economic and Alternatives** – The EA must:

- provide an analysis of the suitability of the gas pipeline corridor and alignment with respect to potential land use conflicts (including access) with existing and future surrounding land uses (including rural and/ or residential development, identified future urban release/growth areas, identified future subdivisions, land of significant scenic or visual value, land of high agricultural value, mineral reserves, forestry, conservation areas, crown land) and existing or identified future infrastructure corridors or upgrade requirements (including roads, rail, communications, electricity, gas and water supply infrastructure). The analysis must take into account local and strategic landuse objectives;
- assess the potential socio-economic impacts of the project including the potential for the project to influence the socio-economic profile of major centres and regions along the project route and the potential for economic impacts to properties directly traversed by the pipeline (through impacts such as disruption to agri-business and agricultural practices, impacts on future development potential, impacts to existing infrastructure (e.g. dams/ irrigation systems) and issues of liability and compensation). The EA must also include an assessment of the socio-economic impacts of any proposed construction camps (including the ability of existing services and infrastructure to cope with the influx of people and potential for social problems such as anti-social behaviour); and
- detail all alternatives considered, both in terms of corridor selection, and alignment within the identified corridor. Clear reasons and justification for the selected corridor/alignment must be presented, demonstrating how landuse conflicts and associated environmental, social and economic issues have been considered in this process.

- **Ecological Impacts** – the EA must include an ecological assessment considering terrestrial, aquatic and groundwater dependent ecosystems (as relevant) consistent with *Guidelines for Threatened Species Assessment* (DEC & DPI, July 2005). The EA must:

- identify bioregions that would be traversed by the project and threatened species, populations and communities listed under both State and Commonwealth legislation that have the potential to occur within each bioregion;
- for each bioregion, map existing vegetation by vegetation/ community type and include details on existing site conditions, including whether the vegetation comprises a highly modified or over-cleared landscape and the types and quality of habitat resources available;
- provide details of the survey methodology employed including survey effort and representativeness for each species targeted and clear justification for species that were discounted for field surveys (or further assessment);
- demonstrate a design philosophy of impact avoidance on ecological values, and in particular, ecological values of high significance;
- provide a worst case estimate of vegetation to be cleared (in hectares), including quantifying impacts (in hectares) by vegetation type and threatened species habitat (as relevant);
- assess the significance of impacts to native vegetation/biodiversity, listed threatened species, populations and communities and their habitats with consideration to region-based ecological implications, including habitat connectivity and distribution of species. The assessment must consider impacts to aquatic, riparian and wetland ecology from works close to waterways and wetlands and waterway crossings (including indirect impacts such as acid sulphate soil exposure), and impacts to groundwater-dependent species from pipeline trenching works which have the potential to encounter

	<p>groundwater;</p> <ul style="list-style-type: none"> → include details of how flora and fauna impacts would be managed during construction and operation including adaptive management (such as fauna management during trenching), rehabilitation/ regeneration measures of the pipeline corridor following construction and maintenance protocols for the final operational corridor; → demonstrate how the project (with the incorporation of all proposed measures to avoid, mitigate and/ or offset impacts) achieves a biodiversity outcome consistent with “maintain or improve” principles. Sufficient details must be provided to demonstrate the availability of viable and achievable options to offset the impacts of the project and to secure these measures in perpetuity; → identify all lands with a conservation covenant, including all lands that include a property vegetation plan; and → include details on the direct and indirect impacts of the proposal on adjoining reserved land. <ul style="list-style-type: none"> • Heritage Impacts – the EA must include an assessment of impacts on Aboriginal and historic heritage. The EA must: <ul style="list-style-type: none"> → include sufficient information to demonstrate the likely impacts of the project on Aboriginal heritage values/items (archaeological and cultural) and outline proposed mitigation measures (including consideration of the effectiveness and reliability of the measures) in accordance with the Draft <i>Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation</i> (DEC, 2005). The assessment must be undertaken by suitably qualified heritage consultants and demonstrate effective consultation with Aboriginal communities in determining and assessing impacts, developing options and selecting options and mitigation measures (including the final proposed measures); and → provide sufficient information to demonstrate the likely impacts of the project on historic heritage values (including heritage vistas) and, where impacts to State or local historic heritage items are proposed, outline proposed mitigation and management measures (including consideration of the effectiveness and reliability of the measures) generally consistent with the guidelines in the NSW Heritage Manual. Where impacts to State or local historic heritage items are proposed, a statement of heritage significance must be included. • Hazards and Risk Impacts – the EA must include an assessment of potential hazards and risk likely to be associated with the proposal to determine the potential for off site impacts and any requirement for a Preliminary Hazard Analysis (PHA), consistent with the approach outlined in Department’s <i>Hazardous Industry Planning Advisory Paper No. 3, Hazardous Industry Planning Advisory Paper No. 6</i> and <i>Multi-level Risk Assessment</i>, and with reference to applicable Australian Standards (including <i>AS2885 Pipelines - Gas and Liquid Petroleum – Operation and Maintenance</i>). Risk impacts associated with the transport of dangerous goods and hazardous materials must be documented with reference to the Department's draft <i>Route Selection</i> guideline. The EA must specifically consider on-going maintenance and safety management of the proposal, including of bush fire risk. • Surface and Groundwater Impacts – the EA must: <ul style="list-style-type: none"> → include an assessment of watercourse crossings (including any temporary and permanent vehicle crossings) along the length of the project, incorporating a risk assessment justifying the proposed crossing method for each watercourse and wetland based on the habitat sensitivity and significance of each waterway, assessment of the hydrologic and hydraulic characteristics, the geomorphic stability and the sensitivity of the watercourse and water body and its riparian zone; → demonstrate what measures will be implemented to manage soil erosion, particularly where the proposed route will traverse areas of steep land; → include an assessment of the risks of groundwater interference (during pipeline trenching and works close to waterways/ wetlands inclusive of predicted
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	<p>dewatering volumes, the time period of dewatering, water quality and disposal/retention methods) and potential water quality impacts to surface and groundwater from acid sulphate soil exposure and soil erosion/sedimentation risks;</p> <ul style="list-style-type: none"> → identify water demands during construction and operation (including hydro-testing) and demonstrate the availability of adequate and secure water supplies to meet project requirements. The assessment must take into account the statutory (licensing) context of the water supply sources, impact on existing users, and provide a general risk assessment of potential environmental impacts associated with the identified sources. The assessment must also detail options for the safe disposal of water from hydro testing; and → where the pipeline traverses flood prone land, provide an assessment of likely flood risks and associated management during construction and operation and how flood design consideration have been considered in the project design and location. <ul style="list-style-type: none"> • Human Amenity Impacts – the EA must include an impact assessment on human amenity, including noise and vibration, air quality (dust, odour and fugitive gasses)), visual amenity and traffic and transport impacts during construction and operation of the project. The EA must: <ul style="list-style-type: none"> → identify human receptors that have the potential to be impacted by the project, including characterising the type of receptors (e.g. isolated receptors, receptor areas (such as residential zones) and sensitive receptors (such as schools, hospitals etc)) and their distance to the project; → identify those receptors and receptor types likely to be impacted by the project including clear description of the nature of impacts (e.g. in the case of noise whether exceedence of noise criteria is expected and if so by how much and for how long); → include a framework for the mitigation, management and monitoring of noise and vibration, air quality (dust, odour and fugitive gasses), visual amenity and traffic impacts during construction and operation of the project, with respect to receptors and receptor types likely to be impacted by the project and with specific reference to high noise and vibration-intensive construction works/activities (drilling, blasting, bulk excavation, heavy vehicle movements, etc) around receptors and major centres and in relation to operational noise impacts from compressor stations; → with respect to traffic impacts, include details of construction traffic volumes, transport routes demonstrating that disruption to local roads and built up areas have been minimised as far as possible (including where the proposed pipeline will cross classified (State) roads, with specific consideration to the crossing of the proposed extension of the F3 freeway to Heatherbrae), and an assessment of potential traffic impacts on road network function (including intersection level of service, anticipated additional vehicular traffic generation inclusive of cumulative traffic impacts of other proposed developments in the area) and safety and associated mitigation measures (including details of upgrades to roads to accommodate proposed traffic volumes, where proposed). <p>The noise and vibration assessment must be undertaken consistent with the following guidelines:</p> <ul style="list-style-type: none"> → Operation stage – <i>NSW Industrial Noise Policy</i> (EPA, 2000); → Site Establishment and Construction – <i>Interim Construction Noise Guidelines</i> (DECC, 2009); → Traffic Noise – <i>Environmental Criteria for Road Traffic Noise</i> (NSW EPA, 1999); → Vibration – <i>Assessing Vibration: A Technical Guideline</i> (DECC, 2006); and → Blasting – <i>Technical Basis for Guidelines to Minimise Annoyance Due to Blasting Overpressure and Ground Vibration</i> (ANZECC 1990). <ul style="list-style-type: none"> • Greenhouse Gas Emissions – The EA should include a comprehensive assessment of, and report on, the projects predicted greenhouse gas emissions
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	<p>(tCO₂e) in accordance with NSW, Australian and international guidelines, inclusive of measures to reduce greenhouse gas emissions and consideration of energy efficiency opportunities.</p> <ul style="list-style-type: none"> • Chemical and Waste Management – The EA should identify all chemicals and the wastes likely to be generated through the installation of the pipeline inclusive of: <ul style="list-style-type: none"> → their storage locations; → the spill management infrastructure and procedures; → the management strategies for the treatment and disposal/utilisation of all liquid and solid wastes generated; and → the management of effluent and waste from the camp sites. • General Environmental Risk Analysis – notwithstanding the above key assessment requirements, the EA must include an environmental risk analysis to identify potential environmental impacts associated with the project (construction and operation), an outline of the proposed mitigation measures and potentially significant residual environmental impacts after the application of proposed mitigation measures. Where additional key environmental impacts are identified through this environmental risk analysis, a framework for the consideration of the additional key environmental impact(s) must be included in the EA.
Consultation Requirements	<p>You must undertake an appropriate and justified level of consultation with the following parties during the preparation of the EA:</p> <ul style="list-style-type: none"> • NSW Department of Environment, Climate Change and Water; • NSW Office of Water; • Industry and Investment NSW; • NSW Rural Fire Service; • relevant Catchment Management Authorities; • NSW Roads and Traffic Authority; • Australian Rail Track Corporation; • relevant service providers; • Land and Property Management Authority; • relevant Livestock Health and Pest Authorities and Landcare Groups; • relevant local aboriginal communities and Local Aboriginal Land Councils; • local councils of Maitland, Muswellbrook, Newcastle, Port Stephens, Singleton, Upper Hunter and Warrumbungle; • relevant minerals stakeholders (including exploration and mining title holders); and • the local community and affected landholders. <p>The consultation process shall include measures for disseminating information to increase awareness of the project as well as methods for actively engaging stakeholders on issues that would be of interest/concern to them. The EA must:</p> <ul style="list-style-type: none"> → demonstrate effective consultation with stakeholders, and that the level of consultation with each stakeholder is commensurate with their degree of interest/concern or likely impact; → clearly describe the consultation process undertaken for each stakeholder/group including details of the dates of consultation and copies of any information disseminated as part of the consultation process (subject to confidentiality); and → describe the issues raised during consultation and how and where these have been addressed in the EA.
Deemed refusal period	60 days