NSW GOVERNMENT
Department of Planning

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Our ref: 06_0238, S06/00712
Your ref:

Mr Frank Mieszala
Manager Special Projects
Eraring Energy
PO Box 5044
DORA CREEK NSW 2264

Dear Mr Mieszala

Eraring Power Station Capacity Increase and Performance Improvements, and New Cooling Water Attemperation Reservoir and Associated Infrastructure, Lake Macquarie Local Government Area (Application: 06_0238)

I refer to your request for Director-General's requirements for the abovementioned proposal. The Director-General's Environmental Assessment Requirements for the abovementioned project are attached, pursuant to section 75F(2) of the *Environmental Planning and Assessment Act 1979*.

Under section 75F(3) of the Act, the Director-General may alter or supplement these requirements if necessary in light of any additional information that may be provided prior to the proponent seeking approval for the proposal.

The Environmental Assessment should be prepared using valid and accepted technical and scientific tools and methodologies, focussing on key environmental impacts and robust mitigation measures to address potential impacts from the project. You should also ensure that you consult with the Department prior to submission of a draft Environmental Assessment to determine:

- fees applicable to the application;
- consultation and public exhibition arrangements that will apply; and
- number and format (hard-copy and/or CD-ROM) of the Environmental Assessments that will be required.

Once you have lodged the Environmental Assessment, the Department will consult with the relevant authorities to determine the adequacy of the Environmental Assessment. Following this review period the Environmental Assessment will be made publicly available for a minimum period of 30 days.

You should keep the contact officer for this project, Scott Jeffries ((02) 9228 6426 or scott.jeffries@planning.nsw.gov.au), up to date with the progress of preparation of the Environmental Assessment, and seek clarification of any issues that may be unclear or may arise during this process.

Yours sincerely

10.10.06

Chris Wilson
Executive Director
As delegate for the Director-General

ERARING POWER STATION CAPACITY INCREASE AND PERFORMANCE IMPROVEMENTS, AND NEW COOLING WATER ATTEMPERATION RESERVOIR AND ASSOCIATED INFRASTRUCTURE, LAKE MACQUARIE LOCAL GOVERNMENT AREA

ENVIRONMENTAL ASSESSMENT REQUIREMENTS UNDER PART 3A OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

Project	Capacity increase and performance improvements at the existing Eraring power station, comprising replacement/ upgrade of plant components, renewal of aged components of plant, and construction of a new cooling water attemperation reservoir with associated infrastructure.
Site	Lot 11 DP 1050120, Lots 301 and 302 DP 806475, Lot 3/8 Section L DP 6747, Lots 13/16 Section O and Part Lot 13/16 Section U DP 6747, Lot 7/16 DO 262501, Lot 19 DP 262501, Lot 1 DP 817425, Lots 100 and 101 DP 828283, Lot 211 DP 840670, Lots 50 and 51 DP 840671, Lots 1, 2 and 3 DP 621697, Lot 1 DP 81674, Lots 20 and 21 DP 734860 and Crown Land adjoining the northern boundary of Lot 11 DP 1050120 to the ridge line, Lake Macquarie local government area.
Proponent	Eraring Energy
Date of Issue	10 October 2006
Date of Expiration	10 October 2008
General Requirements	The Environmental Assessment must be prepared to a high technical and scientific standard and must include: • an executive summary; • a description of the proposal, including construction, operation, and staging; • an assessment of the environmental impacts of the project, with particular focus on the key assessment requirements specified below; • justification for undertaking the project with consideration of the benefits and impacts of the proposal; • a draft Statement of Commitments detailing measures for environmental mitigation, management and monitoring for the project; and • certification by the author of the Environment Assessment that the information contained in the Assessment is neither false nor misleading.
Key Assessment Requirements	The Environmental Assessment must include assessment of the following key issues: • **Strategic Planning** – the Environmental Assessment must provide a strategic assessment of the proposal, including a strategic justification of the need, scale, scope and location for the project in relation to the strategic direction of the region and the State regarding electricity generation, likely electricity demand and any predicted transmission constraints; and strategic planning and analysis of the suitability of the proposed site regarding potential land use conflicts with existing and future surrounding land users. • **Greenhouse Gases** – the Environmental Assessment must include a comprehensive greenhouse gas assessment, incorporating a quantitative model showing the tonnages of each greenhouse gas produced per year. These figures must be expressed as a percentage of the total national greenhouse gases produced per year over the life of the project. If a greenhouse gas offset is proposed, full details of this offset(s) must be included in the Environmental Assessment. The Environmental Assessment must clearly indicate how the total volumes of greenhouse gases emitted, and the greenhouse gas intensity (as tonnes of carbon dioxide (equivalent) per unit of power produced) of the power station will change as a result of the project. • **Air Quality Impacts** – the Environmental Assessment must include a comprehensive air quality impact assessment prepared in accordance with *Approved Methods for Modelling and Assessment of Air Pollutants in NSW* (DEC, 2005), with particular reference to: cumulative air emissions from the project at a local, regional and interregional level; and emissions of pollutants that contribute to photochemical smog formation. The Environmental Assessment must consider emissions including particulates (TSP and PM_{10}), sulfur dioxide, fluoride and oxides of nitrogen, with specific reference to how the volumes and impacts of these pollutants will change as a result of the project.

The Environmental Assessment must also demonstrate that the upgraded power station will meet regulated discharge limits under the *Protection of the Environment Operations (Clean Air) Regulation 2002*, including, where relevant, application of any new or altered emissions limits for the upgrade project under that Regulation.

With respect to the construction of the cooling water attemperation reservoir and associated infrastructure, the Environmental Assessment must include assessment of potential construction dust generation and impacts, and clearly demonstrate how dust impacts will be mitigated, monitored and managed.

- **Noise and Vibration Impacts** – the Environmental Assessment must include an assessment of the noise impacts of the project in accordance with the *NSW Industrial Noise Policy* (EPA 2000) and noise control guidelines *Construction Site Noise* (previously Chapter 171 of the Environmental Noise Control Manual, 1994). With respect to potential vibration impacts, the Environmental Assessment must include consideration in accordance with the DEC's Environmental *Noise Management – Assessing Vibration: a Technical Guideline*. The Environmental Assessment must consider noise and vibration impacts during construction and operation, and in a cumulative context with existing developments.
- **Groundwater Impacts** – the Environmental Assessment must include a detailed consideration of the potential for the project, particularly the proposed cooling water attemperation reservoir to intercept and/ or otherwise impact on groundwater hydrology and quality. The Environmental Assessment must include:
  - details of the groundwater system(s) that will be or may be impacted by the project, including details of the predicted highest groundwater table underlying the proposed attemperation reservoir site, direction and rate of groundwater flow through the site (considered in relation to existing vegetation), physico-chemical characteristics of the groundwater, assessment of groundwater quality, identification of existing groundwater users and groundwater-dependent ecosystems;
  - details of the project and how it will or may impact on groundwater, including any proposed works likely to intercept groundwater, any proposed groundwater extraction works, how extracted water will be managed and disposed, the intended final landform and how it will impact on groundwater flows and quality, demonstration that the project has been designed to prevent short term and long reductions in groundwater quality and demonstration that the project has been designed to prevent groundwater pollution;
  - details of how groundwater and impacts on groundwater will be mitigated, monitored and managed in accordance with best environmental practice; and
  - assessment of the potential impacts of the project on groundwater users and groundwater-dependent ecosystems, either directly or indirectly, and how these impacts will be mitigated.
- **Surface Water Impacts** – the Environmental Assessment must include an assessment of water quality and quantity impacts associated with the project, including details of the expected water balance for the site. The Environmental Assessment must presented expected range and average flows and storage volumes for all relevant water management infrastructure included in the project or affected by the implementation of the project. The Environmental Assessment must also characterise process waters in terms of relevant physico-chemical parameters, including temperature and salinity/ total dissolved solids, in accordance with *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZECC, 2000). Any change in the quantity or quality (including temperature) of water discharged from the site to Lake Macquarie, or any other water body, must be assessed in the Environmental Assessment with respect to environmental water quality impacts and impacts on ecology.

  The Environmental Assessment must include details of how surface waters and process waters will be managed and monitored during construction and operation, and how operational performance including the formation of foam on the cooling water outlet will be affected, and mitigated/ managed, as part of the project.

  The Environmental Assessment must demonstrate a design philosophy reflecting

	minimisation of additional water consumption, and maximisation of water reuse and recycling. • **Ecological Impacts** - the Environmental Assessment must include an ecological impact assessment, including in relation to both terrestrial and aquatic ecosystems, in accordance with the DEC's *Guidelines for Threatened Species Assessment* and the DPI's *Fish Habitat Protection Plan No. 2: Seagrasses*. The assessment must consider direct impacts on ecological values, as well as indirect impacts that may be associated with changes in water quality conditions and flow characteristics in the vicinity of intake/ discharge infrastructure. The Environmental Assessment must clearly indicate what design and operational measures have been or will be applied to the project to minimise potential ecological impacts, and details of any compensatory measures to off-set unavoidable impacts. • **Aboriginal Heritage Impacts** - the Environmental Assessment must include an assessment of impacts on Aboriginal heritage, in accordance with draft *Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation* (DEC, 2005). The Environmental Assessment must include an assessment of the potential for the project to impact on known items of non-Aboriginal heritage significance, and include a management framework for management of any additional heritage items that may be uncovered during construction of the project, particularly the cooling water attemperation reservoir and associated infrastructure. • **Traffic and Transport Impacts** – the Environmental Assessment must include an assessment of the traffic implications of the proposal, both at a local and regional level, in accordance with the RTA's publication *Guide to Traffic Generating Developments*. The Assessment must specifically include consideration of the likely changes in traffic associated with the haulage of coal to the site, and assessment of impacts of this increase in traffic. • **Waste Generation and Impacts** – the Environmental Assessment must include details of the likely waste generation associated with the project, with specific reference to the generation of spoil from the construction of the cooling water attemperation reservoir and increases in ash generation from the power station capacity increase. The Environmental Assessment must include a waste management framework, demonstrating a design and operational philosophy of waste reduction, reuse and recycling. • **General Environmental Risk Analysis** – notwithstanding the above key assessment requirements, the Environmental Assessment must include an environmental risk analysis to identify potential environmental impacts associated with the project (construction and operation), 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, an appropriately detailed impact assessment of the additional key environmental impact(s) must be included in the Environmental Assessment.
Consultation Requirements	You must undertake an appropriate and justified level of consultation with the following parties during the preparation of the Environmental Assessment: • NSW Department of Environment and Conservation; • NSW Department of Natural Resources; • Hunter-Central Rivers Catchment Management Authority; • Lake Macquarie Council; and • the local community. The Environmental Assessment must clearly indicate issues raised by stakeholders during consultation, and how those matters have been addressed in the Environmental Assessment.
Deemed refusal period	Under clause 8E(2) of the *Environmental Planning and Assessment Regulation 2000*, the applicable deemed refusal period is 60 days from the end of the proponent's environmental assessment period for the project.