



NSW GOVERNMENT
Department of Planning

Contact: Swati Sharma
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Fax: (02) 9228 6355
Email: swati.sharma@planning.nsw.gov.au

Mr Rodney Ward
General Manager, Development
Delta Electricity
PO Box Q863
QVB NSW 1230

Our ref: S09/01053
Your ref:

Dear Mr Ward

Mount Piper Power Station Extension Project (Concept Plan Application: 09_0119) – Director-General's Requirements

I refer to your concept plan application for the proposed Mount Piper Power Station Extension Project (MP 09_0119), which comprises the development of a new base-load power station with the generating capacity of up to 2000 megawatts adjacent to the existing Mount Piper Power station to be powered by either coal or natural gas.

I wish to advise that on 19 June 2009 under delegation from the Minister for Planning, I:

- formed the opinion pursuant to clause 6 of the *State Environmental Planning Policy (Major Projects) 2005* (Major Project SEPP) that the project is development of a kind described in Schedule 1 of the Major Project SEPP and is therefore a project to which Part 3A of the *Environmental Planning and Assessment Act 1979* applies. Consequently, the Minister for Planning is the approval authority for the project; and
- authorised the submission of a concept plan for the project pursuant to section 75M(1) of the *Environmental Planning and Assessment Act 1979*.

A copy of the record of my opinion and of the concept plan authorisation is enclosed for your information and reference.

The project is also a 'critical infrastructure project' by virtue of a declaration made by the Minister for Planning on 26 February 2008, with respect to energy generating facilities with the capacity to generate at least 250 MW and for which an application is made prior to 1 January 2013.

I have also attached a copy of my requirements as Director-General (DGRs) for the preparation of an Environmental Assessment for the concept plan. These requirements have been prepared following the Planning Focus Meeting held on 19 June 2009 and in consultation with the relevant government agencies.

The Environmental Assessment prepared for the concept plan must give equal consideration to the coal fired and natural gas option.

It should be noted that the Director-General's requirements have been prepared based on the information provided to date. Under section 75F(3) of the Act, the Director-General may alter or supplement these requirements if necessary and in light of any additional information that may be provided prior to the Proponent seeking approval for the project.

I would appreciate it if you could contact the Department at least two weeks before you propose to submit the Environmental Assessment for the project to determine:

- the fees applicable to the application;

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Telephone (02) 9228 6111 Facsimile (02) 9228 6191 DX 10181 Sydney Stock Exchange
Website planning.nsw.gov.au

- relevant land owner notification requirements;
- consultation and public exhibition arrangements that will apply;
- options available in publishing the Environmental Assessment via the Internet; and
- number and format (hard-copy or CD-ROM) of the Environmental Assessment that will be required.

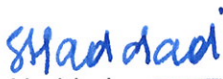
Prior to exhibiting the Environmental Assessment, the Department will review the document to determine if it adequately addresses the DGRs. The Department may consult with other relevant government agencies in making this decision. If I consider that the Environmental Assessment does not adequately address the DGRs, I may require the Proponent to revise the Environmental Assessment to address the matters notified to the Proponent. Following this review period the Environmental Assessment will be made publicly available for a minimum period of 30 days.

If your project includes any actions that could have a significant impact on matters of National Environmental Significance, it will require an additional approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This approval would be in addition to any approvals required under NSW legislation and it is your responsibility to contact the Department of the Environment, Heritage, Water and the Arts to determine if an approval under the EPBC Act is required for your project (6274 1111 or <http://www.environment.gov.au>).

Please note that the Commonwealth Government has accredited the NSW environmental assessment process for assessing impacts on matters of National Environmental Significance. As a result, if it is determined that an approval is required under the EPBC Act, please contact the Department immediately as supplementary Director-General's requirements will need to be issued.

If you have any enquiries about these requirements, please contact Ms Swati Sharma, Environmental Planning Officer, Major Infrastructure Assessments on 02 9228 6221 or via email (swati.sharma@planning.nsw.gov.au).

Yours sincerely


Sam Haddad
Director-General

4/7/2009

Director-General's Requirements

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

Project	Mount Piper Power Station Extension Project, comprising the construction and operation of a new base-load power station and associated infrastructure with a maximum generating capacity of 2000 megawatts, fuelled by either coal (using ultra-supercritical generation technology) or natural gas (using combined cycle generation technology). The proposal would utilise some infrastructure of the existing Mount Piper Power Station.
Site	The power station site will be located on 350 Boulder Road, Portland, in Central West NSW, approximately 17 kilometres north-west of Lithgow.
Proponent	Delta Electricity
Date of Issue	4 July 2009
Date of Expiration	4 July 2011
General Requirements	The Environmental Assessment must include: • an executive summary; • a description of the proposal including: ➢ details of project construction, operation, decommissioning, staging and key ancillary infrastructure (e.g. ash disposal, fuel delivery and storage) under both coal fired and gas generation scenarios including identification of likely worst case development footprint; ➢ details of the extent to which existing infrastructure and facilities (including water sourcing and ash disposal) would be used for the project; ➢ identification of fuel source options for the project and feasibility of those options; ➢ supporting maps/plans clearly identifying existing environmental features (e.g. watercourses, vegetation), infrastructure and landuse (including nearby residences and any approved sensitive landuse) and the siting of the project in the context of this existing environment; • 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>; • an assessment of the key issues outlined below, during construction, operation and decommissioning (as relevant). The Environmental Assessment must assess the worst case as well as representative impact for all key issues considering cumulative impacts, as applicable, from surrounding power stations (including Mount Piper and Wallerawang) considering both coal fired and gas generation scenarios including associated key ancillary components (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	The Environmental Assessment must include assessment of the following key issues: • Strategic Planning and Justification – the Environmental Assessment must: → include a strategic assessment of the need, scale, scope and location for the project in relation to predicted electricity demand, transmission constraints and the strategic direction of the region and the State in relation to electricity supply, demand and electricity generation technologies; → include an analysis of site suitability with respect to potential land use conflicts with existing and future land uses (including existing and approved residential development and mineral reserves) taking into account local and strategic landuse objectives; and → describe alternatives considered for the project in particular technology and

configuration including fuel source, air emission, water use and options for waste disposal/ beneficial reuse and provide justification for the project demonstrating its benefits at a local and strategic scale in comparison to alternatives considered, including the do nothing option.

- **Greenhouse Gases** – the Environmental Assessment must include a comprehensive greenhouse gas assessment undertaken in accordance with the methodology specified in the *National Greenhouse Accounts (NGA) Factors* (Department of Climate Change, November 2008) including:
 - quantification of emissions (in tonnes of carbon dioxide equivalent) in accordance with the *Greenhouse Gas Protocol: Corporate Standard* (World Council for Sustainable Business Development & World Resources Institute) including: direct emissions (Scope 1), indirect emissions from electricity (Scope 2) and any significant up or down stream emissions (Scope 3) considering all stages of the project (construction, operation and decommissioning);
 - comparison of predicted emissions intensity and thermal efficiency against best achievable practice and current NSW averages for the activity, and of predicted emissions against total annual national emissions (expressed as a percentage of total national greenhouse gases production per year over the life of the project);
 - evaluation of the availability and feasibility of measures to reduce and/ or offset the greenhouse emissions of the project including options for carbon capture and storage. Where current available mitigation technology is not technically or economically feasible, the Environmental Assessment must demonstrate that the proposal will use best available technology, including carbon capture readiness, and identify options for triggers that would require staged implementation of emerging mitigation technologies; and
 - evaluation of the project in the light of carbon emission prices of \$10, \$25 and \$50 per tonne under the proposed Commonwealth Carbon Pollution Reduction Scheme, both with and without proposed mitigation measures.
- **Air Quality Impacts** – the Environmental Assessment must include a comprehensive air quality impact assessment prepared in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (DECC, 2005) (Approved Methods) considering worst case operating scenarios and meteorological conditions, representative monitoring and receiver locations and cumulative impacts, as applicable, from the nearby Mount Piper and Wallerawang Power Stations. The Environmental Assessment must address air quality impacts at a local, regional and interregional level and the potential impacts of emissions on photochemical smog formation in the Sydney basin. The assessment must demonstrate that the project would meet the impact assessment criteria in Section 7 of the Approved Methods and the requirements of the *Protection of the Environment Operations (Clean Air) Regulation 2002*. The Environmental Assessment must clearly demonstrate that the project has been designed to include the application of Best Available Control Technology (BACT) in relation to air emissions. The assessment must include a framework for the mitigation, management and monitoring of air quality impacts, particularly with respect to sensitive receptors likely to be significantly impacted by cumulative air quality impacts in the local area.
- **Water Cycle Management** — the Environmental Assessment must:
 - include a integrated water balance for the operation of the project considering water sharing requirements with the existing Mount Piper and Wallerawang Power Stations, identifying indicative water use, wastewater generation and disposal requirements;
 - demonstrate the availability of viable water sources to sustainably meet the water requirements of the project for the life of the project. Consideration shall be given to water reuse and recycling options (including use of treated effluent, rainwater, on site treatment and use of mine waste water), the security of supply, current and future water demand in the region and potential impacts on other users; and
 - reflect a design philosophy of zero water discharge from the site, except for natural surface water flows and provide an assessment of the likely risks to

water quality associated with the project including to drinking water catchments consistent with the heads of consideration provided in *Drinking Water Catchments Regional Environmental Plan No. 1*, considering key ancillary components (such as ash disposal).

- **Noise Impacts** - the Environmental Assessment must include a comprehensive operational noise impact assessment for the project, prepared in accordance with *NSW Industrial Noise Policy* (EPA, 2000) considering worst case operating scenarios and meteorological conditions, representative monitoring and receiver locations, and cumulative impacts from surrounding power stations (including Mount Piper and Wallerawang) and the Western Rail Coal Unloader. The assessment must consider the potential for low frequency noise generation and peak noise events with the potential to cause sleep disturbance. The Environmental Assessment must also consider the potential for:
 - construction noise impacts considering potential cumulative impacts from concurrent construction works (e.g. the Western Rail Coal Unloader) consistent with the DECC's "construction noise - existing guidelines" available electronically at <http://www.environment.nsw.gov.au/noise/constructnoise.htm>
 - vibration impacts during construction and operation consistent with *Assessing Vibration: A Technical Guideline* (DECC, 2006); and
 - traffic generated noise during construction and operation consistent with *Environmental Criteria for Road Traffic Noise* (EPA, 1999).

The Environmental Assessment must include a framework for the mitigation, management and monitoring of noise impacts, particularly with respect to sensitive receptors likely to be significantly impacted by cumulative noise impacts in the local area.

- **Ecological Impacts** – the Environmental Assessment must include an assessment of the impacts on native vegetation, threatened species, populations, ecological communities and their habitats (both terrestrial and aquatic as relevant). The Environmental Assessment must include a screening of species, populations, ecological communities and habitats based on ecological significance and the potential for impact as a consequence of the project. For species, populations, ecological communities and habitats with high ecological significance and significant potential for impact, include sufficient information to demonstrate the likely impacts, consistent with *Guidelines for Threatened Species Assessment* (DEC & DPI, July 2005). The assessment must demonstrate a design philosophy of impact avoidance on ecological values, and in particular, ecological values of high significance and include a framework for the further consideration of ecological impacts at the project approval stage, and during detailed design of the project, including options for mitigation and/ or offset consistent with "improve or maintain" principles. Sufficient details must be provided to demonstrate the availability of viable and achievable options to offset the impacts of the project.
- **Heritage Impacts** – the Environmental Assessment must include sufficient information to demonstrate the likely impacts on Aboriginal heritage values/items (archaeological and cultural) and proposed mitigation measures consistent with the Draft *Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation* (DEC, 2005). The Environmental Assessment must demonstrate effective consultation with Aboriginal communities has been undertaken in determining and assessing impacts and mitigation measures.
- **Visual Impacts** – the Environmental Assessment must include an assessment of the visual impact of the project from representative viewing points including residential receivers, settlements and significant public view points and include a framework for the mitigation and management of visual amenity impacts on affected receivers. An overview of the effectiveness and reliability of the measures and any residual impacts after the implementation of such measures must be included.
- **Hazards and Risk Impacts** – the Environmental Assessment must include a screening of potential hazards on site to determine the potential for off site impacts

	and any requirement for a Preliminary Hazard Analysis (PHA). The Environmental Assessment must also provide a preliminary screening of potential risks to aviation safety associated with the exhaust plumes from the operation of the project with consideration to the Commonwealth Civil Aviation Safety Authority's Advisory Circular <i>Guidelines for Conducting Plume Rise Assessments</i> (June 2004). • Waste Management – identification of the major waste streams to be generated by the proposal (including waste from water treatment and coal ash) and measures for its management and disposal including options for recycling and reuse where reasonable and feasible. • 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: • Commonwealth Department of Climate Change; • NSW Department of Environment and Climate Change; • NSW Department of Water and Energy; • NSW Department of Primary Industries; • Sydney Catchment Authority; • Lithgow City Council; and • the local community. The Environmental Assessment must clearly describe the consultation process and indicate the issues raised by stakeholders during consultation and how these matters have been addressed.

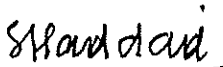


Record of Minister's opinion for the purposes of Clause 6(1) of the State Environmental Planning Policy (Major Projects) 2005

I, the Director-General of the Department of Planning, as delegate of the Minister for Planning under delegation executed on 4 March 2009, have formed the opinion that the development described in the Schedule below, is development of a kind that is described in Schedule 1, clause 24 of *State Environmental Planning Policy (Major Projects) 2005* namely development for the purpose of a gas or coal fired generation facility that has a capital investment value of more than \$30 million. It is therefore declared to be a project to which Part 3A of the *Environmental Planning and Assessment Act 1979* applies for the purpose of section 75B of that Act.

Schedule

A proposal by Delta Electricity for the construction of a gas or coal-fired electricity generating facility that has a generating capacity of up to 2000 megawatts and associated infrastructure (the Mount Piper Power Station Extension project), located in the Lithgow local government area, as generally described in the document titled "Mt Piper Power Station Extension Project Description and Preliminary Environmental Assessment" prepared by Sinclair Knight Merz and dated June 2009.


Director-General
Department of Planning

Date: 19 June 2009.



NSW GOVERNMENT

Department of Planning

**Record of Minister's authorisation of a Concept Plan under section 75M(1) of the
Environmental Planning and Assessment Act 1979**

I, the Director-General of the Department of Planning, as delegate of the Minister for Planning under delegation executed on 4 March 2009, authorise the submission of a concept plan for the development described in the Schedule below.

Schedule

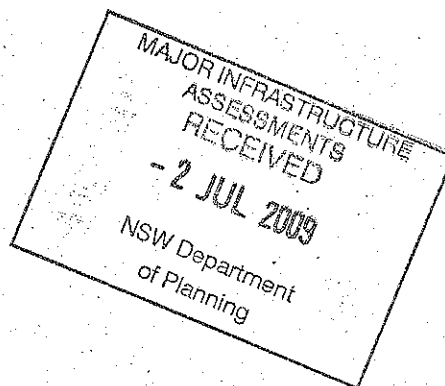
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S Haddawi

Director-General
Department of Planning

Date: 19th June 2009.

Your reference: S09/01052; S09/01053; S09/01051
Our reference: DOC09/30449, LIC09/664
Contact: Mark Evans, 4908 6824



Department of Planning
GPO Box 39
SYDNEY NSW 2300

Attention: Mr Scott Jeffries

29/6/09

Dear Mr Jeffries

I refer to your letters dated 18 June 2009 requesting the Department of Environment and Climate Change's (DECC's) input to Director-General's Requirements for the preparation of an Environmental Assessment for the following proposals:

- Proposed Bayswater B Power Station (Ref: 09_0118)
- Proposed Munmorah Power Station Refurbishment (Ref: 09_0117)
- Proposed Mt Piper Power Station Extension (Ref: 09_0119)

I also refer to the Planning Focus Group meeting held at the Department of Planning in Sydney on 19 June 2009.

DECC has reviewed the information submitted in relation to these proposals¹ and has identified the information it requires to assess the proposals. DECC considers the key environmental issues to be:

- impacts on air quality, including greenhouse gas emissions and cumulative impacts;
- impacts on water quality; and
- impacts on noise amenity, including cumulative impacts.

DECC has identified the information it requires to assess the proposals in Attachments A, B and C. In carrying out the assessment, the applicant should refer to the guidelines in Attachment D and any relevant industry codes of practice and best practice management guidelines. For ease of reference, DECC also recommends that the Department of Planning request proponents to adopt a consistent format in the presentation of the Environmental Assessment for each proposal.

Proponents should ensure that Environmental Assessments are sufficiently comprehensive and detailed to allow DECC to determine the extent of the impacts of the proposals. In particular, the

¹ "Project Description and Preliminary Environmental Assessment, Mt Piper Power Station, prepared by Sinclair Knight Merz, dated June 2009;
"Preliminary Environmental Assessment Proposed Power Station Bayswater Liddell Power Generation Complex", prepared by AECOM, dated 17 June 2009; and
"Preliminary Environmental Assessment Munmorah Power Station Rehabilitation", prepared by Aurecon, dated 5 June 2009.

requirements of Section 45 of the *Protection of the Environment Operations Act 1997* should be addressed.

Proponents should also be aware that any commitments made in the Environmental Assessments may be formalised as licence or approval conditions. Consequently pollution control measures should not be proposed if they are impractical, unrealistic or beyond the financial viability of the development. It is important that all conclusions are supported by adequate data.

DECC requests that five (5) hard copies and one (1) electronic copy of each Environmental Assessment be provided for review. These documents should be lodged with the Regional Manager – Hunter, Department of Environment and Climate Change, PO Box 488G, Newcastle NSW 2300.

If you require any further information regarding this matter please contact Mark Evans on (02) 4908 6824.

Yours sincerely



JOE WOODWARD
Deputy Director General
Environment Protection and Regulation

Enclosure:

- Attachment A – DECC's Environmental Assessment Requirements – Proposed Mt Piper Power Station
- Attachment B – DECC's Environmental Assessment Requirements – Proposed Bayswater B Power Station
- Attachment C - DECC's Environmental Assessment Requirements – Munmorah Power Station Rehabilitation
- Attachment D – Guidance Material

DECC'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

PROPOSED MT PIPER POWER STATION EXTENSION

Environmental Impacts of the Project

DECC requires the following information to determine the extent of environmental impacts of the proposal. Impacts should be assessed in accordance with the relevant legislative requirements and guidelines listed in **Attachment D**.

Environmental Assessments should be carried out for each operating scenario (i.e. coal fired and/or gas fired generation).

In addition, the EA should assess compliance against existing planning documents and guidelines relevant to the project.

1. The Proposal

The objectives of the proposal should be clearly stated and refer to:

- the size and type of the operation;
- the anticipated level of performance in meeting required environmental standards and cleaner production principles;
- the staging and timing of the proposal; and
- the proposal's relationship to any other industry or facility.

2. The Premises

The EA should fully identify all of the processes and activities intended for the site over the life of the development. This should include details of:

- the location of the proposed facility and details of the surrounding environment;
- the proposed layout of the site;
- appropriate land use zoning;
- ownership details of any residence and/or land likely to be affected by the proposed facility;
- maps/diagrams showing the location of residences and properties likely to be affected and other industrial developments, conservation areas, wetlands, etc in the locality that may be affected by the facility;
- all equipment proposed for use at the site;
- all chemicals, including fuel, used on the project site, the maximum quantity of each chemical, proposed methods for their transportation, storage, use and emergency management;
- waste generation and disposal; and
- methods to mitigate any expected environmental impacts of the development.

3. Air

The EA should include a comprehensive air quality impact assessment prepared in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (the *Approved Methods*) for each operating scenario. The air quality impact assessment should consider worst case operating scenarios and meteorological conditions, and cumulative impacts from the adjacent Mount Piper, Wallerawang power stations.

The air quality impact assessment should address impacts at a local, regional and interregional level and assess the impacts of emissions on photochemical smog formation in the Sydney basin. Recognising the need for future economic growth and the ongoing protection of population health, the EA should demonstrate that sufficient mitigation is proposed for ozone precursors to ensure ongoing compliance with the *National Environment Protection Measure for Ambient Air Quality* ozone goals while providing capacity for future industrial growth in the air-shed.

The air quality impact assessment should demonstrate the proposal will cause no extra exceedences of the relevant impact assessment criteria in Section 7 of the *Approved Methods*.

The EA should demonstrate that emissions of fine particles and heavy metals will be minimised to the maximum extent practicable through the application of best practice process design and/or emissions controls. Practicability includes a consideration of technical, logistical and financial considerations. It is not expected that reductions in emissions should be pursued at any cost, nor will the preferred option necessarily be the lowest cost option. However, the preferred option should be cost effective.

The EA should demonstrate how proposed operating scenarios will comply with the requirements of the *Protection of the Environment Operations (Clean Air) Regulation 2002*. The EA should also propose an air quality monitoring program to monitor emissions, to assess compliance with the requirements of Schedule 4 of the *Protection of the Environment Operations (Clean Air) Regulation 2002* and verify model predictions.

The EA should include a review of the location of ambient air monitoring stations and the need for additional monitoring stations to reflect highest ground level concentration locations, and locations representative of residential and public receptors.

4. Greenhouse Gas Emissions

The following requirements are provided on the basis that the proposed national Carbon Pollution Reduction Scheme (CPRS) will be the primary regulatory instrument for greenhouse gas (GHG) emissions.

The EA should comprehensively assess and report on the project's predicted greenhouse gas (GHG) emissions in tonnes of carbon dioxide equivalent (tCO₂-e) undertaken in accordance with the methodology specified in the *National Greenhouse Accounts (NGA) Factors* (Department of Climate Change, November 2008) including:

- quantification of emissions in accordance with the *Greenhouse Gas Protocol: Corporate Standard* (World Council for Sustainable Business Development & World Resources Institute) including direct emissions (Scope 1), indirect emissions from electricity (Scope 2), and upstream and downstream emissions (Scope 3) both before and after implementation of the project, including annual emissions for each year of the project (i.e. during construction, operation and decommissioning of the project);
- identification of which emissions will be covered by the proposed CPRS (*Carbon Pollution Reduction Scheme Bill 2009*) and analysis of the expected carbon costs for the proposal including at prices of \$10, \$25 and \$50 per tonne of CO₂e. Analysis is to be presented showing how, at these prices, the project will be prepared to operate successfully within the CPRS;

- evaluation of the availability and feasibility of measures to reduce and/or offset greenhouse gas emissions including investigation of currently available greenhouse gas mitigation technology, such as Carbon Capture and Storage (CCS).

When assessing CCS technology, the proponent should investigate and report on:

- a) potential storage options;
- b) feasibility of transport to storage options;
- c) other environmental issues relating to CCS such as gas leakage, and
- d) any foreseeable barriers to implementing CCS.

If installation of currently available technology is not practical, then the proponent should continually assess the feasibility of incorporating new greenhouse gas mitigation technologies, such as CCS, as those new technologies are developed and become available and incorporate in the project design provision for either:

- a) suitable technology, such as CCS, to be implemented;
 - b) project emissions to be offset using a method acceptable to DECC;
to be implemented from 2020 in the event that no national cap and emissions reduction legislation or scheme is in operation by that date;
- evaluation of the feasibility of measures to reduce greenhouse gas emissions associated with the project, concentrating on emissions not covered by the CPRS; and
 - evaluation of emissions intensity and thermal efficiency of the new facility against current best available technology and against current NSW averages.

5. Noise

The EA should include a comprehensive noise impact assessment for each operating scenario as follows:

- Construction noise should be assessed using DECC's "Existing Guidelines" available electronically at <http://www.environment.nsw.gov.au/noise/constructnoise.htm>
- Operational noise from all activities to be undertaken on the premises should be assessed using the guidelines contained in the *NSW Industrial Noise Policy (EPA, 2000)* and *Industrial Noise Policy Application Notes*.
- Operational vibration from all activities to be undertaken on the premises should be assessed using the guidelines contained in the *DECC Environmental Noise Management – Assessing Vibration: a technical guideline (DEC, 2006)*.
- Noise from increased traffic resulting from the operation of the premises on public roads should be assessed using the guidelines contained in the *Environmental Criteria for Road Traffic Noise (EPA, 1999)*.
- If blasting is required for any reasons, blast impacts should be demonstrated to be capable of complying with the guidelines contained in "Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration" (ANZEC 1990).

Assessment requirements for potential noise from increased rail movements on the NSW Rail Network can be provided if rail transport is proposed as part of the application.

Note that:

- levels of operational noise and vibration from any existing power station on the licensed premises needs to be presented, together with predicted levels for any new power station; and,
- the combined operational noise and vibration from both existing and proposed power stations on the licensed premises, not just solely from the proposed power stations alone, needs to be compared against the relevant criteria.

- cumulative noise and vibration impacts are to be assessed by consideration of noise from other premises.

6. Water

The EA should include a comprehensive assessment of both construction site water management and operational site water management, which includes:

Process water

- a water balance for the project identifying the maximum water use, wastewater generation and wastewater disposal requirements for the operation of the project, in support of the design philosophy of a zero water discharge from the site;
- where possible, the water balance should not only consider volumes of source water and its utilisation, but also quality of source water and the impact of process on the quality of wastewater generated at various stages of the project, including wastewater disposal; and
- options for water reuse and recycling such as treated effluent.

Stormwater

- concept designs for stormwater management during construction and operation that demonstrate that stormwater associated with a significant rainfall event will be managed in a way to ensure:
 - appropriate runoff and erosion control, and
 - that any discharge of stormwater from the site will comply with the appropriate water quality objectives for the Cox's river catchment.

7. Waste and Chemicals

The EA should include an assessment of all likely waste streams associated with the project both during construction and operation, and how waste would be managed by the project in line with the principles of waste avoidance, reuse, and recycling. The EA should include information to ensure:

- waste is managed in accordance with the principles of the waste Hierarchy, NSW Waste Avoidance and Resource Recovery Strategy and cleaner production concepts;
- the handling, processing and storage of all waste materials used at the premises does not have a negative environmental or amenity impact; and
- the beneficial reuse of all waste generated at the premises is maximised where it is safe, practical and lawful to do so both during the construction and ongoing operational phase of the proposed development.

Specific information on waste management should include:

- An assessment and quantification of the types of waste which will be generated, reused, and recycled during the construction and ongoing operational phase of the proposed development, for example;
 - fly and bottom ash residues from the burning of coal and other non-standard fuels,
 - residues from the treatment of water in filters, screens, softeners, reverse osmosis units and brine concentrators,
 - liquid wastes including cooling or boiler water 'blowdown', reagents used to regenerate de-mineralisers or operate closed cooling water systems,
 - irregularly generated liquid cleaning solutions or other materials generated during maintenance turnarounds,
 - construction waste and fill materials,
 - all waste derived non-standard fuels, and
 - any other residue or waste.

- Proposed disposal options for the waste generated on-site.
- An assessment of whether any proposed on-site waste management options will require an Environment Protection Licence under Schedule 1 of the *Protection of the Environment Operations Act 1997*.

In addition, with respect to operational waste generation and management, the EA should describe the impacts of ash waste generated by the project, including:

- the impact of the project on the volumes of ash and brine waste generated, with particular reference to the impact on the management of existing ash and brine emplacement activities;
- the impact of the project on the life of the existing Mt Piper ash emplacement area;
- the intended ongoing management of ash waste beyond the life of the existing Mt Piper ash emplacement; and
- consideration of options/strategies for beneficial re-use of operational (ash) waste.

The EA should also include an investigation into alternative ash management measures aimed at maximising the re-use of ash. A cost / benefit analysis on the feasibility of each re-use option, or a combination of re-use options to achieve this goal, should be carried out.

The EA should provide details of chemicals to be stored in bulk on the site, and the expected maximum storage volume for each. A commitment should also be made to construct, operate and maintain all storages in compliance with recognised standards and all applicable legislation.

8. Contaminated Land

The mechanisms for the management of any known, or discovered, contaminated land on the site should be detailed in the EA.

9. Threatened Species and their Habitat

The EA should consider any threatened species which may be impacted by the proposed Mt Piper Power Station Extension. This assessment should include the proposed power station site and any areas required for, and potentially impacted by, the development of associated infrastructure offsite (e.g. switch yards, ash dam expansion etc).

In this regard, DECC notes that the Preliminary Environmental Assessment (**PEA**) states that the proposed extension may comprise additional coal fire steam turbine generators or new combined cycle gas turbines. However, approval for gas pipeline infrastructure is not being sought as part of the project application (refer page 11 of the PEA). DECC advises that should approval be sought for a pipeline to deliver gas to the site, the EA would need to consider impacts of this infrastructure on threatened species.

There are two assessment tools that can be used by proponents for this purpose:

- the factors identified in the *Threatened Species Assessment Guidelines – The Assessment of Significance* (DECC 2007 and NSW DPI 2008); or
- the BioBanking Assessment Methodology. Further information can be found on the DECC website at: <http://www.environment.nsw.gov.au/biobanking/assessmethodology.htm>.

Any offsets proposed should comply with DECC's 'Principles for the use of Biodiversity Offsets in NSW' identified in **Attachment D**. Justification for any area(s) proposed as compensatory habitat should include an assessment of the threatened species values impacted on by the proposed works and whether the proposed area(s) provides equivalent values.

The EA should:

- document all known and likely threatened species, their habitats, population and ecological communities of the site (including any adjacent areas that may be indirectly impacted upon by the proposal). The EA should provide details of survey methodologies and / or techniques utilised;
- provide a detailed assessment of the impacts on such species, habitats, population and ecological communities; and
- detail the actions that will be taken to avoid or mitigate impacts, or to compensate or offset unavoidable impacts of the project on threatened species, populations, ecological communities and their habitat.

10. Aboriginal Cultural Heritage

The EA should identify the nature and extent of any impacts on Aboriginal Cultural Heritage values across the project area and the strategies proposed to avoid / minimise these impacts. If impacts are proposed as part of the final development, clear justification for such impacts should be provided with evidence of local Aboriginal community consultation.

If any new sites or objects are located, they should be recorded on NPWS site cards and registered on DECC's Aboriginal Heritage Information Management System (AHIMS). AHIMS contact details: Phone: (02) 9585 6470, address: Lvl 6, 43 Bridge Street, Hurstville, NSW, 2220, e-mail: ahims@environment.nsw.gov.au.

End

26 June 2009

GENERAL GUIDANCE MATERIAL

Assessing Environmental Impacts

Information requirements described in **Attachment A** should be assessed in accordance with the following legislative requirements and guidelines. In particular the requirements of Section 45 of the *Protection of the Environment Operations Act 1997* should be addressed.

Air Quality

- Protection of the Environment Operations (Clean Air) Regulation 2002.
- Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (2006).
- Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (2005).
- Assessment and Management of Odour from Stationery Sources in NSW (November, 2006).

Impacts on Greenhouse Gas Emissions

- The Greenhouse Gas Protocol: Corporate Standard, World Council for Sustainable Business Development & World Resources Institute.
<http://www.ghgprotocol.org/standards/corporate-standard>
- National Greenhouse Accounts (NGA) Factors, Australian Department of Climate Change, 2008.
<http://climatechange.gov.au/workbook/index.html>
- Australia's Low Pollution Future: The Economics of Climate Change Mitigation, Australian Treasury, 2008.
<http://www.treasury.gov.au/lowpollutionfuture/>
- Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, White Paper, Australian Department of Climate Change, 2008, Chapter 12: Assistance to emissions-intensive trade-exposed industries.
<http://www.climatechange.gov.au/whitepaper/report/index.html>

Noise and Vibration

- Construction noise should be assessed using DECC's "Existing Guidelines" available electronically at <http://www.environment.nsw.gov.au/noise/constructnoise.htm>
- Operational noise should be assessed in accordance with the *NSW Industrial Noise Policy* (EPA, 2000) and *Industrial Noise Policy Application Notes*.
<http://www.environment.nsw.gov.au/noise/industrial.htm>
- Operational vibration should be assessed in accordance with *DECC's Environmental Noise Management – Assessing Vibration: a technical guideline* (DEC, 2006).
<http://www.environment.nsw.gov.au/noise/vibrationguide.htm>
- Traffic noise should be assessed using the *Environmental Criteria for Road Traffic Noise* (EPA, 1999) <http://www.environment.nsw.gov.au/noise/traffic.htm>
- If blasting is required for any reasons, blast impacts should be demonstrated to be capable of complying with the guidelines contained in "*Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration*" (ANZEC 1990).
<http://www.environment.nsw.gov.au/noise/blasting.htm>

Water

Water Quality

- National Water Quality Management Strategy: Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC 2000).
- NWQMS Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC 2000).

Stormwater

- Managing Urban Stormwater: Soils and Construction (Landcom, 2004).
- Managing Urban Stormwater: Source Control (EPA 1998).
- Managing Urban Stormwater: Treatment Techniques (EPA 1998).

Groundwater

- State Groundwater Policy Framework Document (DLWC 1997).
- NSW State Groundwater Quality Protection Policy (DLWC 1998).
- (Draft) NSW State Groundwater Quantity Management Policy.
- NSW State Groundwater Dependent Ecosystems Policy (DLWC, 2002).
- National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ & ANZECC, 1995).

Waste and Chemicals

- Waste Classification Guidelines, Part 1: Classification of Waste (DECC, 2008)
- Environmental Compliance Report: Liquid Chemical Storage, Handling and Spill Management Part B Review of Best Practice and Regulation (DEC, 2005)
<http://www.environment.nsw.gov.au/resources/licensing/ecrchemicalsb05590.pdf>
- Storing and Handling Liquids: Environmental Protection Participants Manual (DECC, 2007)
<http://www.environment.nsw.gov.au/resources/sustainbus/2007210liquidsManual.pdf>
- Waste Exemption Guidelines <http://www.environment.nsw.gov.au/waste/RegulateWaste.htm>

Aboriginal Cultural Heritage Impacts

- Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation – (DEC, 2005) Available from the Department of Planning website.
- Part 3A EP&A Act Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation' (Department of Planning and DEC 2007). Available from DECC and Department of Planning on request.
- Interim Community Consultation Requirements for Applicants (DECC 2005)

Threatened Species Impacts

- Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities (DEC November 2004)
<http://www.environment.nsw.gov.au/resources/nature/TBSAGuidelinesDraft.pdf>.

(Note: Section 6.1 *Assessment of Significance* has now been amended by DECC 2007 and NSW DPI 2008)

- Threatened species survey and assessment guidelines: field survey methods for fauna – Amphibians (DECC April 2009)
<http://www.environment.nsw.gov.au/resources/threatenedspecies/09213amphibians.pdf>

(Note: DECC has recently produced new survey guidelines to cover Amphibians (frogs), which replaces the amphibian section in the DEC (2004) guidelines. However, the survey requirements for all other species (flora and fauna) are still found in the DEC (2004) guidelines).

- Threatened Species Assessment Guidelines – The Assessment of Significance (DECC 2007 and NSW DPI 2008)
- Principles for the use of Biodiversity Offsets in NSW (DECC October 2008). <http://www.environment.nsw.gov.au/biocertification/offsets.htm>
- The BioBanking Assessment Methodology. Further information can be found on the DECC website at: <http://www.environment.nsw.gov.au/biobanking/assessmethodology.htm>.
- Consideration for assessment of the proposal through the NSW Government's Biodiversity Banking and Offset Scheme (BioBanking). BioBanking is a voluntary process which provides a systematic and consistent framework for counterbalancing (offsetting) the impacts of development to achieve an improve or maintain outcome for biodiversity values. Further information is available at: <http://www.environment.nsw.gov.au/biobanking/index.htm>



NSW Government
Department of Water & Energy

Scott Jeffries
Director Major Development Assessment
Department of Planning
GPO Box 39
Sydney NSW 2001

File ref: MP ER20656

Attention: Dinuka MacKenzie

Dear Ms MacKenzie

**Subject: Delta Electricity Mt Piper power station extension Project Application
No 09_0119**

Thank you for your letter of 18 June 2009 concerning the invitation for written submissions on the Delta Electricity Mt Piper project proposal under Part 3A of the *Environmental Planning and Assessment Act 1979*.

DWE requires the Environmental Assessment (EA) for the proposal demonstrate that the proposed mining operation will achieve the following:

1. compliance with rules, limitations and operational constraints set within Delta Electricity Part 9 licence under the *Water Act 1912* (WA)
2. no impact on adjacent licensed water users, basic landholder rights, or minimum base flows in the Coxs river, or surface or ground water-dependent ecosystems

The information provided in the Preliminary Environmental Assessment does not explain the delineation of increased water supply required to the operation, nor how the project may achieve the above outcomes. The conceptual statements made in the Preliminary Environmental Assessment (PEA) do not convey understanding of the risks associated with any increased extraction from the Coxs River or Fish River water sources, nor how the above will be achieved. This must be explained in detail in the Environmental Assessment, and justification of the proposal provided in terms of protection to the two water source

Should you have any further enquiries about this matter, please contact Mr Fergus Hancock, Major Projects Assessments in relation to operational requirements which must be explained in the Environmental Assessment. He may be contacted at the Department's Newcastle Office on telephone number (02) 4904 2532. Should you require any clarification regarding Delta Electricity's licence arrangements, please contact Mr Salim Vhora, manager, Corporate Licensing on (02) 4729 8128.

Yours sincerely

Jeff Hunt

A/Manager, Major Projects Assessments 30/06/09.

State Government Technical and Policy Documents**Water Management**

Delta Electricity Part 9 licence 10WM00002

Surface water

NSW Rivers and Estuaries Policy 1994

Groundwater

NSW State Groundwater Policy Framework Document (1997)

NSW State Groundwater Quantity Management Policy (1998)

NSW State Groundwater Quality Protection Policy (1998)

NSW State Groundwater Dependent Ecosystems Policy (2002)

Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000)

Australian and New Zealand Guidelines for Water Quality Monitoring and Reporting (2000)

Guidelines for the Assessment and Management of Groundwater Contamination (2007)

Guidelines for Groundwater Protection in Australia (1995)



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Email info@sca.nsw.gov.au
Website www.sca.nsw.gov.au

Ref: D2009/04365

Your Ref: ENO1942_SCA_040809

Mr Kenneth Robinson
Sinclair Knights Merz
PO Box 164
St Leonards NSW 1590

Dear Mr Robinson

Proposed Mt Piper Power Station Extension – Consultation Referral

I refer to your letter dated 4 August 2009 regarding the above and your request for the Sydney Catchment Authority's (SCA) input to the preparation of the Environmental Assessment (EA).

The project is located within the Upper Cocks River sub-catchment that is part of the Sydney Drinking Water Catchment. As the project has been classified a Major Project to be assessed and determined under Part 3A of the *Environmental Planning and Assessment Act*, it is not formally subject to the requirements of the *Drinking Water Catchments Regional Environmental Plan No 1*. Nevertheless, the SCA considers water quality issues should be comprehensively considered in the assessment process and that this planning instrument establishes appropriate assessment criteria. The SCA considers that the environmental assessment of the proposal should include an assessment of whether the proposal will have a 'neutral or beneficial effect on water quality' both during the construction and operation stages. The SCA considers the project should be constructed and operated in a manner which does not adversely affect the quality of surface and ground waters beyond the boundaries of the site.

The SCA has reviewed the information in the Preliminary Environmental Assessment (PEA) and notes that it identifies water management as a key issue during the construction and operation phases of the project. The SCA also notes that the PEA identifies the proposed extension is expected to generate similar water discharge quality and quantity to the existing power station during the operational phases of the project.

The SCA has reviewed the Director-General's Requirements and notes that water cycle management is a key assessment requirement. The SCA endorses these water cycle management assessment requirements.

The SCA requests that the EA address the following as they relate to water management within the Sydney Drinking Water Catchment – in addition to that specified in the PEA and Director-General's Requirements:

1. Description of the Project. The description of the project needs to clearly identify the relationship between the project and the existing power station. Clarity is required on which existing water quality management measures (including infrastructure and facilities) would be used for the project and whether any of these measures would need to be augmented or otherwise amended. Details should also be provided on the arrangements for management of flyash.
2. Cumulative Impacts. The SCA considers the cumulative impact assessment specified in the Director-General's Requirements should in addition consider cumulative impacts associated with other past, present and reasonably foreseeable land uses in the catchment of Neubecks Creek.
3. Water Cycle Management. The SCA considers the water cycle management assessment should address the following:
 - a. It is important the water cycle management assessment consider potential implications of the project on the quality and quantity of groundwater (in addition to implications for surface waters). In this regard a focus should be on the groundwater implications of management of the flyash.
 - b. The assessment of the project to determine its consistency with the neutral or beneficial effect on water quality test should address the following:
 - i. Likely pollutants of concern during the construction and operational stages;
 - ii. For each pollutant, list the on-ground water quality protection measures that will be needed during construction and operation, along with the performance criteria for each measure;
 - iii. For each water quality protection measure identify the period for which they are expected to be in place and consider the sustainability of the measure;
 - iv. For each pollutant, describe the expected load & concentration post-construction/during operation compared to pre-construction levels;
 - v. State whether the project will have a neutral or beneficial effect on water quality in both the short and long term.

The on-ground protection measures and management practices considered should be based on SCA endorsed *Current Recommended Practices (CRPs) and Standards* (listed on the SCA website www.sca.nsw.gov.au & available for inspection at the SCA Head Office at 2-6 Station Street Penrith). Justification for measures proposed based on considerations other than SCA endorsed *CRPs and Standards* should be provided.

 - c. In considering the water reuse and recycling options an assessment should be made of using wastewater currently discharged downstream from Lake Wallace from the Wallerawang Power Station.
 - d. The site currently has an Environment Protection Licence (NO 13007). The water cycle management assessment should identify any

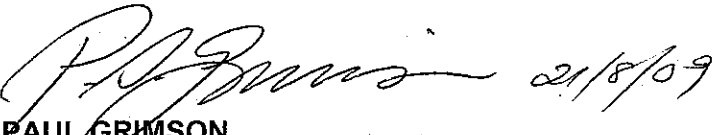
anticipated changes to the licence with respect to discharges to water, limit conditions and monitoring requirements.

- e. The site currently has a Water Management Licence. The water cycle management assessment should identify any anticipated changes to the licence with respect to entitlements, efficiencies, flow releases, and water quality and river health monitoring.

The SCA would appreciate being involved in the further assessment of the project. In this regard the SCA would appreciate the opportunity to meet you on site to discuss the above.

If you wish to discuss any matter raised in this letter, please do not hesitate to contact Malcolm Hughes on 4724 2452 or Malcolm.hughes@sca.nsw.gov.au

Yours sincerely

 21/8/09
PAUL GRIMSON
Manager Planning & Assessments

Cc: DoP

Mt Piper Power Station Extension Project - Consultation Referral

From: Andrew Muir [andrew.muir@lithgow.nsw.gov.au]

Fri 18/09/2009 6:57 AM

To: Robinson, Kenneth IM (SKM)

Ken, please find the following comments that Council would request be specifically considered as part of the Environmental Assessment:

Gas Powered

- Can the extension of gas to Mt Piper be routed to also pick up nearby villages, particularly Portland, and the off take facility installed?
- Impact on housing and services of construction workforce.
- Impact on infrastructure, community facilities and services of upgraded power station.
- Water requirements for cooling (if any), sources and resultant impacts.

Coal Powered

- Coal transportation to site. Council's strong preferences would be off road transportation with supply from collieries within the Lithgow Local Government Area. (If coal supply is proposed to be sourced from outside the LGA then the economic, employment and social impact on the Lithgow LGA would need to be considered)
- Ash disposal strategy in a manner that mitigates visual, environmental, dust and amenity impacts. This would require special consideration if disposal is continued in proximity of nearby villages.
- Possibilities of utilising ash as a resource (eg construction material) rather than a waste product.
- Water requirements for cooling (if any), sources and resultant impacts.
- Impact on housing and services of construction workforce.
- Water requirements for cooling (if any), sources and resultant impacts.
- Environmental impacts of emissions.

Whilst this may not be an exhaustive list it should assist in identifying a number of key local issues. Naturally, Council reserves the right to make submissions at the appropriate time in the assessment process.

Andrew Muir
Group Manager Regional Services
Lithgow City Council
PO Box 19 Lithgow NSW 2790
Ph 63549999 Fax 63514259

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