

Concept Approval

Section 750 of the *Environmental Planning and Assessment Act 1979*

I, the Minister for Planning, under the *Environmental Planning and Assessment Act 1979* determine:

- a) to approve the concept plan referred to in Schedule 1, subject to the modifications in Schedule 2; and
- b) pursuant to section 75P(1)(a) of the *Environmental Planning and Assessment Act 1979*, the further environmental assessment requirements for approval to carry out the preferred option (either coal- or gas-fired power station), as detailed in Schedule 2.



The Hon Tony Kelly MLC
Minister for Planning

12 JAN 2010

Sydney

2009

File No: S09/01053

SCHEDULE 1

Application No:	09_0119
Proponent:	Delta Electricity
Approval Authority:	Minister for Planning
Land:	Land the subject of Major Project Application 09_0119
Proposal:	Mount Piper Power Station Extension, comprising: • Pulverised Coal Fired Ultra Supercritical Thermal Plant and associated infrastructure; or • Gas Fired Combined Cycle Gas Turbine Plant and associated infrastructure.
Major Project:	The proposal is declared a Major Project under section 75B(1)(a) of the <i>Environmental Planning and Assessment Act 1979</i>, because it is a project of a kind described in Group 8, clause 24 of Schedule 1 to <i>State Environmental Planning Policy (Major Projects) 2005</i>.
Concept Plan Authorisation:	On 19 June 2009, the Director-General, as delegate for the Minister for Planning, authorised the submission of a concept plan for the proposal.
Critical Infrastructure:	The proposal is classified as critical infrastructure within the meaning of section 75C of the <i>Environmental Planning and Assessment Act</i> as it meets the definition of development for the purposes of a facility for the generation of electricity that has a capacity to generate at least 250 megawatts and is the subject of an application lodged pursuant to Section 75E or 75M of the Act prior to 1 January 2013, pursuant to the

KEY TO CONDITIONS

1. ADMINISTRATIVE CONDITIONS	5
Terms of Concept Approval	5
Limits of Approval	5
2. PROJECT APPLICATION REQUIREMENTS	5
Greenhouse Gas Minimisation	8
3. PROJECT SPECIFIC LIMITS	8
Air Quality	8
Noise	9
Water Supply	10
4. COMPLIANCE MONITORING AND TRACKING	10
Compliance Tracking Program	10
5. COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT	11
Provision of Electronic Information	11

SCHEDULE 2

Act, the	<i>Environmental Planning and Assessment Act, 1979</i>
Committed Projects	Those projects which have been approved for electricity generation and have either been commissioned or where construction has commenced.
Conditions of Approval	The Minister's conditions of approval for the concept plan.
Council	Lithgow City Council
DECCW	Department of Environment, Climate Change and Water
Department, the	Department of Planning
Director-General, the	Director-General of the Department of Planning (or nominee).
Director-General's Approval	A written approval from the Director-General (or nominee). Where the Director-General's Approval is required under a condition the Director-General will endeavour to provide a response within one month of receiving an approval request. The Director-General may ask for additional information if the approval request is considered incomplete. When further information is requested the time taken for the Proponent to respond in writing will be added to the one month period.
Director-General's Report	The report provided to the Minister by the Director-General of the Department under section 75I of the EP&A Act.
EA	<i>Mt Piper Power Station Extension: Environmental Assessment</i> , prepared by Sinclair Knight Merz for Delta Electricity and dated September 2009.
Minister, the	Minister for Planning
Proponent	Delta Electricity (or any party entitled to act on the approval)
Proposal	Mount Piper Power Station Extension Concept Plan Application
Publicly Available	Available for inspection by a member of the general public (for example available on an internet site or at a display centre).
Site	Land to which Major Project Application 09_0119 applies.
Submissions Report	<i>Mt Piper Power Station Extension: Submissions Report</i> , prepared by Sinclair Knight Merz for Delta Electricity and dated November 2009.

1. ADMINISTRATIVE CONDITIONS

Terms of Concept Approval

- 1.1 The Proponent shall carry out the concept plan and all related projects generally in accordance with the:
 - a) Major Project Application 09_0119;
 - b) *Mt Piper Power Station Extension Environmental Assessment*, prepared by Sinclair Knight Merz and dated September 2009;
 - c) *Mt Piper Power Station Extension Submissions Report* prepared by Sinclair Knight Merz and dated November 2009 including final Statement of Commitments; and
 - d) the requirements of this approval.
- 1.2 In the event of an inconsistency between:
 - a) the conditions of this approval and any document listed from condition 1.1a) and 1.1c) inclusive, the conditions of this approval shall prevail to the extent of the inconsistency; and
 - b) any document listed from condition 1.1a) and 1.1d) inclusive, the most recent document shall prevail to the extent of the inconsistency.
- 1.3 If there is any inconsistency between this concept approval and any project approval granted for the project, this concept approval shall prevail to the extent of the inconsistency.
- 1.4 The Proponent shall comply with any reasonable requirement(s) of the Director-General arising from the Department of Planning's assessment of:
 - a) any reports, plans or correspondence that are submitted in accordance with this concept plan approval or any related project approvals; and
 - b) the implementation of any actions or measures contained in these reports, plans or correspondence.

Limits of Approval

- 1.5 This concept approval shall lapse ten years after the date of its approval by the Minister, unless works the subject of any related project approval are physically commenced on or before that date.
- 1.6 To avoid any doubt, this concept plan approval does not permit the construction or operation of any projects associated with the Mount Piper Power Station Extension. Construction cannot commence on any projects associated with this concept plan unless a separate project approval has been granted in relation to that project.

2. PROJECT APPLICATION REQUIREMENTS

- 2.1 The Proponent's preferred option (coal- or gas-fired power station) requires further environmental assessment and the submission of a separate project application in accordance with condition 2.2. The requirements outlined in condition 2.2 include the development of any ancillary infrastructure offsite not otherwise covered by a separate approval, as applicable to the preferred option.
- 2.2 The following environmental assessment requirements apply with respect to a project application (coal-fired or gas-fired power station):
 - a) General Requirements:
 - i) a demonstration that the project is consistent with the requirements of this approval and generally consistent with the scope and intent of the concept outlined in the documents under condition 1.1 of this approval;
 - ii) detailed description and location of all project components, including ancillary facilities. The Environmental Assessment shall identify likely environmental constraints and potential land use conflicts taking into account existing receptors and future development potential;
 - iii) consideration of relevant statutory context including consistency with the objects of the *Environmental Planning and Assessment Act 1979* and interaction with any other approvals required to be obtained to enable development of the project (including ash disposal areas and gas pipeline as relevant); and

- iv) a detailed project-specific Statement of Commitments, consistent with the Statement of Commitments prepared for the concept plan, with a clear indication of any new or amended commitments relating to the project.
- b) an updated **Greenhouse Gas Assessment** shall be undertaken in consultation with DECCW and in accordance with the methodologies specified in the Australian Government's National Greenhouse and Energy Reporting Scheme Technical Guidelines and the NSW National Greenhouse Accounts Factors, or any other reference document relevant at the time of preparing the project application, and as agreed by the Director-General, including, but not limited to:
 - i) a refinement of the greenhouse gas assessment presented in the documents referred to under condition 1.1, having regard to advancements, if any, that may occur in relation to fuel, generating technology and/ or assessment methodologies;
 - ii) confirmation of emissions (in tonnes of carbon dioxide equivalent) based on detailed project design including ancillary infrastructure and mitigation measures. The Environmental Assessment shall quantify direct emissions (Scope 1), indirect emissions (Scope 2) and any significant up or down stream emissions (Scope 3) of the final project design considering all stages of the project (construction, operation and decommissioning), including detailed information on methodologies applied and derived calculations. The calculations shall be based on worst-case and representative operating conditions;
 - iii) demonstration that the plant has been designed to incorporate best commercially available technology and mitigation measures to maximise thermal efficiency within water availability constraints and minimise and/or offset greenhouse gas emissions consistent with the outcomes of the greenhouse gas minimisation strategy identified in condition 2.3; and
 - iv) demonstration that the project can be designed to be retro-fitted to implement carbon capture technology or future technically and economically feasible mitigation measures to continually improve and/or reduce greenhouse gas emissions consistent with the outcomes of the greenhouse gas minimisation strategy identified in condition 2.3.
- c) an updated **Air Quality Assessment** shall be developed in consultation with DECCW and NSW Health and in accordance with Approved Methods for Modelling and Assessment of Air Pollutants in NSW (DEC, 2005) (or its later version) confirming the air quality emissions associated with the final project design with consideration to worst-case meteorological and operating conditions and cumulative impacts from contemporaneous operations of the existing Mount Piper and Wallerawang Power Stations and other relevant surrounding land uses. Particular consideration shall be given to:
 - i) cumulative air impacts at a local, regional and inter-regional level;
 - ii) relevant operational scenarios for the project including start-up, shut-down and partial load operations;
 - iii) if coal is selected as the fuel for the project, determination of in-stack emission concentration limits (in mgm^{-3} at reference conditions: dry, 273K, 101.3 kPa and 7% oxygen (O_2), unless otherwise agreed by DECCW) for the following pollutants: cadmium; chlorine; fluorine (F_2) and any compound containing fluorine as total fluoride (HF equivalent); hydrogen chloride; mercury; sulfuric acid mist and sulfur trioxide (as SO_3); sulfur dioxide; Type 1 and Type 2 substances in aggregate; and volatile organic compounds as n-propane equivalent;
 - iv) the potential for acid deposition, its impacts and the mitigation measures that would be implemented to reduce any identified impacts;
 - v) if coal is selected as the fuel for the project, potential hydrogen fluoride impacts to specialised land uses, demonstrating that impacts have been minimised as far as practicable and can comply with specialised land use criteria for hydrogen fluoride concentrations;
 - vi) a demonstration that the project has incorporated best commercially available technology for the minimisation of all air emissions;
 - vii) the mitigation and management measures that will be implemented to reduce the emission of all air pollutants including (as applicable) SO_2 , NO_2 , NO_x , hydrogen

- fluoride, solid particles and other air toxics. The assessment shall demonstrate that the project can meet the NO_x limits specified in this approval; and
- viii) a description of measures proposed to manage and monitor the efficiency and performance of air pollution control techniques which have been developed in consultation with the DECCW.
 - d) an updated cumulative **Noise and Vibration Impact Assessment** shall be conducted in accordance with the NSW Industrial Noise Policy (EPA, 2000) to demonstrate that the final project design can meet the noise limits specified in this approval under normal operating conditions. The Environmental Assessment shall also include an assessment of the construction noise impacts of the project, against the Interim Construction Noise Guidelines (DECC, 2009). The Environmental Assessment shall include a Noise and Vibration Management Protocol to demonstrate how noise and vibration (inclusive of related traffic noise impacts) will be mitigated and managed for the project.
 - e) an updated **Water Assessment** shall be developed in consultation with the Office of Water and Sydney Catchment Authority, to confirm the operational water requirements of the final project design taking into account the identification of available water supply and any existing water entitlements and contemporaneous requirements of the existing Mount Piper and Wallerawang Power Stations. The information shall include:
 - i) identification of specific activities (both construction and operation) that have the potential to cause adverse impacts to local water quality and measures to manage and mitigate these impacts demonstrating a neutral or beneficial effect on water quality and the drinking water catchment;
 - ii) a Water Supply Contingency Plan to address operational water availability during periods of drought taking into account any relevant water entitlements; and
 - iii) a water cycle balance for the operation of the project including:
 - capacity of the water treatment facility of the existing Mt Piper Power Station Units 1 and 2 (if that water treatment facility is proposed to be utilised for the project) to cater for the treatment of contaminated water to be produced by the project. Accordingly, a description of the total water treatment infrastructure required (existing and/or proposed) shall be identified;
 - details on a reuse water program, including proposed operational recycling practices with consideration to interactions with contemporaneous practices at the Mt Piper Power Station, with the aim of enhancing water re-use potential. Limiting factors relevant to the proposal's re-use potential of water shall be discussed.
 - f) if coal is selected as the preferred fuel, and if ash management is not already the subject of a separate project approval, an **Ash Management Strategy** shall be provided in the Environmental Assessment including an assessment of the cumulative amenity impacts on the residences of Blackmans Flat as a result of ash placement activities occurring or proposed to occur, in close proximity to these residences. The interaction of any third party approvals shall also be addressed;
 - g) an updated **Heritage Impact Assessment** shall be prepared in accordance with the DECCW's Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation. The Environmental Assessment shall include an assessment of the final project design to impact on known items of Aboriginal and non-Aboriginal heritage significance, and include a management framework for management of any additional items that may be uncovered during construction of the project. The assessment shall also document the mitigation and management measures that will be incorporated as part of the final project design to minimise impacts to heritage.
 - h) an updated **Traffic and Transport Assessment** shall be prepared which includes predicted volumes of traffic associated with the final project design and the impact of these on the performance of key intersections in the vicinity of the project. Measures to manage or mitigate traffic impacts are required to be addressed.
 - i) an updated screening of potential hazards on site (including new gas supply infrastructure where relevant) shall be undertaken to determine the potential for offsite impacts and the any requirement for a **Preliminary Hazard Analysis (PHA)**. If potential site impacts are identified, the PHA shall be prepared in accordance with the

Department's *Hazardous Industry Planning Advisory Paper No. 3, Hazardous Industry Planning Advisory Paper No. 6 and Multi-level Risk Assessment*. Risk impacts associated with the transport of dangerous goods or hazardous materials shall be documented with reference to the Department's draft Route Selection Guideline.

- j) notwithstanding the above key assessment requirements, the Environmental Assessment shall include an environmental risk analysis to identify potential environmental impacts associated with the final project design (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 these shall be included in the Environmental Assessment.
- k) an appropriate and justified level of consultation with the following parties during the preparation of the Environmental Assessment, including but not limited to:
 - i) NSW Department of Environment, Climate Change and Water;
 - ii) Lithgow City Council;
 - iii) Sydney Catchment Authority;
 - iv) NSW Office of Water;
 - v) NSW Health;
 - vi) the local community, including but not limited to the Local Aboriginal Land Council.
 The Environmental Assessment shall clearly indicate issues raised by stakeholders during consultation, and how those matters have been addressed in the Environmental Assessment.

Greenhouse Gas Minimisation

2.3 The Proponent shall, on a triennial basis from the date of this concept plan approval, evaluate and report on the availability of viable greenhouse gas reduction, mitigation and/or offset options for incorporation into the final project design taking into consideration relevant contemporaneous economic drivers including applicable legislative framework (such as an emissions trading scheme) and electricity demand and supply projections. Unless otherwise agreed to by the Director-General, a report outlining the outcomes of this evaluation shall be submitted to the Director-General and DECCW on a triennial basis and made publicly available on the website required to be established under condition 5.2 (with the exception of commercial-in-confidence material) no later than six weeks from the date of the report being lodged with the Director-General and DECCW. The report shall evaluate the viability of greenhouse gas reduction, mitigation and/or offset options (including but not necessarily limited to carbon capture and storage, solar augmentation and biomass fuel taking into account relevant externalities such as fuel sourcing, delivery and storage and captured emission storage and transport) on the basis of Long Run Marginal Cost, unless an alternative methodology is agreed to by the Director-General in consultation with DECCW.

2.4 In the event that a project application is submitted prior to the lodgement of the first triennial report required under condition 2.3, the Environmental Assessment shall include the information required by that condition.

3. PROJECT SPECIFIC LIMITS

Air Quality

3.1 Should the Proponent select natural gas as the preferred fuel for the project, the Proponent shall design and operate the plant to meet the emission concentration limit outlined in Table 1 under normal operating conditions (not including start-up, shut-down or emergency situations).

Table 1 – Maximum Allowable Discharge Concentration Limits (Air)

Emission Point	Pollutant	Units of measure	100 percentile concentration limit	Reference conditions
each stack	Nitrogen dioxide (NO ₂) or nitric oxide (NO), or both as NO ₂ equivalent	milligrams per cubic metre	52	dry, 273 K, 101.3 kPa, and 15 % oxygen (O ₂)

- 3.2 Should the Proponent select coal as the preferred fuel for the project, the Proponent shall **design** the plant to meet the emission concentration design criteria outlined in Table 2 under normal operating conditions (not including start-up, shut-down or emergency situations).

Table 2 – Design Criteria (Air)

Emission Point	Pollutant	Units of measure	100 percentile concentration limit	Reference conditions
each stack	Nitrogen dioxide (NO ₂) or nitric oxide (NO), or both as NO ₂ equivalent	milligrams per cubic metre	500	dry, 273 K, 101.3 kPa, and 7 % oxygen (O ₂)
each stack	Solid particulates (total), measured as a 24-hour average	milligrams per cubic metre	30	dry, 273 K, 101.3 kPa, and 7 % oxygen (O ₂)
each stack	Solid particulates (total), measured as a 1-hour average	milligrams per cubic metre	50	dry, 273 K, 101.3 kPa, and 7 % oxygen (O ₂)

- 3.3 Should the Proponent select coal as the preferred fuel for the project, the Proponent shall **design** to operate the plant to meet the emission concentration limits outlined in Table 3 under normal operating conditions (not including start-up, shut-down or emergency situations).

Table 3 – Maximum Allowable Discharge Concentration Limits (Air)

Emission Point	Pollutant	Units of measure	100 percentile concentration limit	Reference conditions
each stack	Nitrogen dioxide (NO ₂) or nitric oxide (NO), or both as NO ₂ equivalent	milligrams per cubic metre	500	dry, 273 K, 101.3 kPa, and 7 % oxygen (O ₂)
each stack	Solid particulates (total), measured as a 1-hour average	milligrams per cubic metre	50	dry, 273 K, 101.3 kPa, and 7 % oxygen (O ₂)

- 3.4 For the purpose of this approval, measurement of pollutant concentrations shall be undertaken in accordance with reference sample methods specified in *Approved Methods for Sampling and Analysis of Pollutants in NSW* at a frequency specified in an applicable Environment Protection Licence issued under the *Protection of the Environment Operations Act 1997*.
- 3.5 The Proponent shall **design** the project to install emissions monitoring equipment capable of monitoring and reporting solid particulate emissions on a continuous basis, as approved by the Director-General in consultation with DECCW.
- 3.6 Should the Proponent select coal as the preferred fuel for the project, after two years of operation, the Proponent shall submit a Proof of Performance Report to the Director-General and DECCW, outlining:
- the operational performance of the continuous monitoring equipment for air emissions; and
 - the capability of the project to meet solid particulates (total) emission concentration design limit of 30 mgm⁻³ (24-hour average) specified under condition 3.2.

Note: a discharge limit for solids particulates (total) measured as a 24-hour average will be added to the Environment Protection Licence for the project based on the findings of the Proof of Performance Report.

- 3.7 Should the Proponent select coal as the preferred fuel for the project, the Proponent shall design the project so as not to preclude retro-fitting, if necessary, of flue gas desulfurisation technology.

Noise

- 3.8 The Proponent shall design the project to ensure that the noise contributions from the project to the background acoustic environment do not exceed the maximum allowable noise contributions specified in Table 4, at the locations and during the periods indicated. This condition only applies to the project operating under normal operating conditions and does

not include start-up, shut-down or emergency situations. The noise limits outlined in Table 4 apply under all meteorological conditions, with the exception of any one of the following:

- a) wind speeds greater than 3 metres/second at 10 metres above ground level;
- b) stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or
- c) stability category G temperature inversion conditions.

Table 4 – Maximum Allowable Noise Contribution*

Locality	Noise Assessment Location	Day 7:00am to 6:00pm Mondays to Saturdays 8:00am to 6:00pm Sundays and public holidays	Evening 6:00pm to 10:00pm on any day	Night 10:00pm to 7:00am Mondays to Saturdays 10:00pm to 8:00am Sundays and public holidays	
		L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{A1} (1 minute)
Portland	Location A – Back Cullen Road, Portland	36	36	36	45
	Location B – Humphrey Street Portland	35	35	35	45
Pipers Flat	Location C – Iron Road, Piper Flat	35	35	35	45
Blackmans Flat	Location D – Noon Street Blackmans Flat	36	36	36	45
Any other residential premises not nominated above, at the time of project approval.		35	35	35	45

*The above maximum allowable noise contributions apply to the whole project (i.e. existing Mount Piper Units 1 and 2 and proposed Mount Piper Power Station Extension)

- 3.9 For the purposes of condition 3.8, the meteorological data to be used in determining meteorological conditions is the data recorded by the meteorological weather station identified as Mount Piper Power Station Weather Station in Environment Protection Licence 13007. Stability category temperature inversion conditions shall be determined by the sigma-theta method referred to in Part E4 of Appendix E to the *NSW Industrial Noise Policy*.

Water Supply

- 3.10 The Proponent shall design the project to ensure that sufficient water is available for all stages of the project, and if necessary, adjust the scale of operations to match available water supply.

4. COMPLIANCE MONITORING AND TRACKING

Compliance Tracking Program

- 4.1 The Proponent shall develop and implement a **Compliance Tracking Program** to track compliance with the requirements of this concept approval and all related project approvals. The Program shall include, but not necessarily limited to:
- a) provisions for periodic review of the compliance status of the development and each of its project components;
 - b) provisions for periodic reporting of compliance status to the relevant approval authority;
 - c) a program for independent environmental auditing of the development, in accordance with *ISO 19011:2002 - Guidelines for Quality and/ or Environmental Management Systems Auditing*; and
 - d) mechanisms for rectifying any non-compliance identified during environmental auditing or review of compliance.

5. COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT

- 5.1 Subject to confidentiality, the Proponent shall make all documents required under this concept approval and any relevant project approval available for public inspection on request.

Provision of Electronic Information

- 5.2 The Proponent shall establish and maintain a new website, or dedicated pages within its existing website for the provision of electronic information associated with the development. The Proponent shall publish and maintain up-to-date information on this website or dedicated pages including, but not necessarily limited to:
- a) information on the development, each of its project components and the current implementation status of each;
 - b) a copy of this concept approval and all related project approvals;
 - c) a copy of each relevant environmental approval, licence or permit required and obtained in relation to the development;
 - d) a copy of each monitoring program and each environmental management required under this concept approval or under each relevant project approval;
 - e) details of the outcomes of reviews and audits of the development and each of its project components undertaken in accordance with the Compliance Tracking Program referred to under condition 4.1; and
 - f) details of a contact point(s) to which community complaints or inquiries may be directed, including a telephone number, a postal address and an email address.
-