

Appendix A Authority Consultation



NSW GOVERNMENT

Department of Planning

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

Our ref: 9039738
Your ref:

Dear Mr Ward

Bamarang Gas Fired Power Station – Modification to Concept Plan and Stage 1 (06_0029_MOD 1) – Environmental Assessment Requirements

I refer to your correspondence dated 23 March 2009 seeking a modification to the Bamarang Gas Fired Power Station Concept Plan and Stage 1 approval (MP06_0029) to pursue the option of developing a 330 kilovolt transmission line between the approved facilities site and the existing TransGrid 330 kilovolt transmission network approximately five kilometres to the west, to connect the electricity generated at the power station to the grid.

The Department understands that Delta Electricity (the Proponent) seeks to retain the already approved option of constructing and operating a 132 kilovolt transmission line between the approved facilities site and the existing Integral Energy electricity grid to the east of the site, should the 330 kilovolt option not transpire. Whichever option is ultimately chosen by the Proponent during detailed design, only one transmission line will be built to connect the electricity generated at the power station to the grid.

In accordance with section 75W(3) of the *Environmental Planning and Assessment Act 1979*, the Director-General requires that the Proponent address (but not necessarily be limited to) the following matters in its modification assessment:

- need and justification for the proposed 330kv transmission line, including cost and benefits compared to the approved 132 kilovolt transmission line and alternatives considered;
- description of the proposed modification including clear and legible maps of the site;
- assessment of key issues associated with the modification, clearly identifying any new impacts or changes to impact associated with the project as modified and any new measures to minimise, manage, mitigate, monitor and/ or off-set impacts, including how these relate to the requirements of the concept plan/ project approval (MP06_0029) and the Statement of Commitments. The following key issues must be addressed:
 - **flora and fauna** – a worst case biodiversity assessment of the project as modified consistent with *Guidelines for Threatened Species Assessment* (DEC, July 2005), specifically considering impacts to threatened species and communities listed under both State and Commonwealth legislation and fragmentation impacts, and demonstrating how the modified project would achieve neutral or beneficial biodiversity outcomes. The assessment must identify any additional clearing at the facilities site to locate the proposed sub station and provide a general comparison of biodiversity impacts of the project with the 330kv transmission line versus the approved project with the 132kv transmission line. If biodiversity offset measures are proposed, sufficient information must be presented in the assessment to demonstrate that these measures are viable and available;

- **indigenous heritage** - an assessment of the impacts of the project as modified on indigenous heritage values (archaeological and cultural), consistent with *Guidelines for Aboriginal Cultural Impact Assessment and Community Consultation* (DEC, July 2005) identifying measures to avoid, minimise, manage and/ or offset impacts;
- **visual impacts** - an assessment of the visual impacts of the project as modified, identifying measures to avoid, minimise, manage and/ or offset impacts;
- **hazards and risk** - including bushfire, electromagnetic fields and aviation safety;
- an appropriate and justified level of consultation with relevant public authorities, including the Department of Defence, Civil Aviation Safety Authority, Department of Environment and Climate Change, Department of Water and Energy, TransGrid, Shoalhaven City Council, landowners and the community. The modification assessment must clearly identify the issues raised and how these have been addressed.

I would appreciate it if you could contact the Department at least two weeks prior to the lodgement of the modification assessment to confirm:

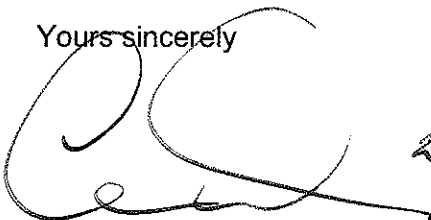
- modification fee arrangements;
- the number and format (hard-copy or CD-ROM) of the modification assessment that will be required; and
- arrangements for the exhibition of the modification assessment and for making the assessment publicly available on the Department's website.

If your proposal 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 proposal (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.

Should you have any enquiries on this matter, please do not hesitate to contact Ms Dinuka McKenzie, Senior Environmental Planning Officer, Major Infrastructure Assessments on 02 9228 6348 or via email (dinuka.mckenzie@planning.nsw.gov.au).

Yours sincerely



22.1.09

Chris Wilson
Executive Director
Major Project Assessments
as delegate for the Director-General

Your Reference : HA01132
Our Reference : DOC09/17743 – FIL07/4424
Contact : Craig Jones

Mr Kenneth Robinson
Project Director
Sinclair Knight Merz
PO Box 164
ST LEONARDS NSW 1590

Dear Mr Robinson

RE: Proposed Modification – Bamarang Gas-Fired Power Station – 330kV Transmission Line

I refer to your correspondence dated 14 April 2009 in relation to a proposed modification to the development consent for the Bamarang Gas-Fired Power Station. The Department of Environment and Climate Change (DECC) understands that the modification relates to the construction of a 5.2km 330kV transmission line requiring a 60 metre wide easement.

DECC's role in the assessment of developments modifications considered under Part 3A of the *Environmental Planning and Assessment Act 1979* is to provide advice to the Department of Planning on the impacts of those proposals upon the environment and Aboriginal cultural heritage.

DECC has considered the outline of the proposal and has identified the information it requires to assess the impacts of the project in Attachment A. You should ensure that the Environmental Assessment is sufficiently comprehensive and detailed to allow DECC to determine the extent of the impacts of the proposal. In summary, the DECC's key information requirements for the project are:

- the environmental impacts of the project;
- the impacts of the project on threatened species and their habitat;
- the impacts of the project on Aboriginal cultural heritage values;
- development adjoining National Park Estate
- the actions that will be taken to avoid or mitigate impacts or compensate to prevent unavoidable impacts identified above;

In carrying out the assessment the applicant should refer to the relevant guidelines as described in Attachment B.

An assessment must also be conducted of the potential impacts on land managed by DECC including land reserved or dedicated under the *National Parks and Wildlife Act 1974*. Guidelines for the assessment of those impacts are provided in Attachment C.

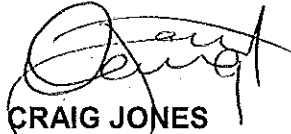


DECC notes the proposed transmission line route identified in Figure 1 of your correspondence is likely to require the clearing of approximately 30 hectares of native vegetation. Delta Electricity is encouraged to ensure that any required biodiversity offset for the impacts of the proposal that cannot be avoided or mitigated are factored into the final route selection process.

DECC requests that 3 hard copies and 1 CD of the EA are provided for assessment. These documents should be lodged at the DECC's South East Regional Office, PO Box 622, Queanbeyan, NSW 2620.

Please contact me at the DECC's Queanbeyan office on 02 6229 7002 if you require any further information.

Yours sincerely,



CRAIG JONES
Acting Head of Operations - South East Region
Environment Protection and Regulation

16 April 2009

Attachment A – Department of Environment and Conservation's Environmental Assessment Requirements

Environmental impacts of the project

The following environmental impacts of the project need to be assessed, quantified and reported on:

- Air
- Water quality
- Contaminated land
- Noise
- Threatened species
- Aboriginal cultural heritage

These should be assessed in accordance with the relevant guidelines listed in Attachment B.

Details are required on the location of the proposed development, including the affected environment, to place the proposal in its local and regional environmental context including surrounding land uses, planning zonings and potential sensitive receptors.

Describe mitigation and management options that will be used to prevent, control, abate or mitigate identified environmental impacts associated with the project and to reduce risks to human health and prevent the degradation of the environment. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.

Air Issues

Dust generation during the construction phase of the transmission line is the primary air quality concern. Potential emission sources include open exposed areas, material processing and handling, loading and un-loading, stockpiles and haulage activities. Details must be provided on proposed dust management strategies for all potential sources of dust.

The environmental assessment must be conducted in accordance with the DECC publication *"Approved Methods for Modelling and Assessment of Pollutants in New South Wales"*. The environmental assessment must assess PM10 (24-hour and annual average), total suspended particulates and deposited dust impacts.

The environmental assessment must include a cumulative assessment that examines the impacts of the proposal combined with all existing and approved dust generating activities in the area.

Water quality

The environmental outcomes for the project in relation to water should be:

- There is no pollution of waters (including surface and groundwater) during construction or occupation of the site by the final users;
- There is no inconsistency with any relevant Statement of Joint Intent established by the Healthy Rivers Commission; and
- It is acceptable in terms of the achievement or protection of the River Flow Objectives and Water Quality Objectives.

The EA should document the measures that will achieve the above outcomes. In addition, the EA must:

- Take into account and complement Shoalhaven City Council's Integrated Water Cycle Management Plan which is currently being developed.

Contaminated Land

The EA must document the assessment and management of any land contamination to ensure that the land is not allowed to be put to a use that is inappropriate because of the presence of contamination. Under the Contaminated Land Management Act there is a responsibility to notify the DECC of sites that pose a significant risk of harm to human health or the environment.

Noise

The proposal must be designed, constructed, operated and maintained so that there are no adverse impacts from noise (including traffic noise).

Impacts of the project on threatened species and their habitat

The site may support Endangered Ecological Communities associated with coastal floodplains. Accordingly, impact abatement and management planning will form an important part of the EA for the proposal.

Not all areas of the proposed site may be suitable for development and any development will need to avoid Endangered Ecological Communities and provide an appropriate buffer and asset protection zone.

Threatened species that could potentially occur onsite and should be considered include:

- Gang-gang Cockatoo;
- Large forest owls ;
- Glossy Black cockatoo;
- Yellow-bellied Glider;
- All Microchiropterean bats
- Square Tailed Kite
- Grey headed Flying Fox
- Green and Golden Bell Frog

This list is not exhaustive and there is potential for a number of other threatened species to occur at the site.

All survey work for these species must be undertaken at the appropriate time of year for each species to maximise the survey results.

In addition to these survey requirements all hollow bearing trees on site should be identified and marked on a map to be supplied within the Environmental Assessment. Sizes of the hollows must be recorded to determine suitability for threatened species. These hollow bearing trees should also be targeted for stag watches to indicate the presence or absence of hollow dependent fauna in particular micro bats, yellow bellied glider, squirrel gliders, Glossy black and Gang Gang cockatoos. All of these species will require an assessment of the use of the hollow bearing trees during the breeding period for each species.

The EA must describe what actions will be undertaken to avoid or mitigate impacts caused by the development on all threatened species described at the site

Impacts of the project on Aboriginal cultural heritage values

The EA should address and document the information requirements set out in the draft "Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation" involving surveys and consultation with the Aboriginal community.

The EA must identify the nature and extent of impacts on Aboriginal cultural heritage values across the project area.

Should the site be found to have significant Aboriginal cultural heritage values, the EA must describe the actions that will be taken to avoid or mitigate impacts or compensate to prevent unavoidable impacts of the project on Aboriginal cultural heritage values. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.

The EA needs to clearly demonstrate that effective community consultation with Aboriginal communities has been undertaken in determining and assessing impacts, developing options and making final recommendations.

Attachment B - Guidance Material Assessing Environmental Impacts

Air quality

- Protection of the Environment Operations (Clean Air) Regulation 2002
- Approved Methods for the Sampling and Analysis of Air Pollutants in NSW
- Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in New South Wales

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)
- Healthy Rivers Commission Report into Coastal Lakes and Statement of Joint Intent
- NSW Government Water Quality and River Flow Environmental Objectives for Clyde River and Jervis Bay
- The relevant targets within the State Water Management Outcomes Plan
- *NSW Guidelines for Urban & Residential Use of Reclaimed Water* (NSW Water Recycling Coordination Committee, 1993).

Stormwater

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

Contaminated Land

- Managing Land Contamination: Planning Guidelines - SEPP55 - Remediation of Land, Department of Urban Affairs and Planning and NSW EPA, 1998:
- Contaminated Sites – Guidelines for Consultants Reporting on Contaminated Sites (Environment Protection Authority (EPA) 1997);
- Contaminated Sites – Guidelines on Significant Risk of Harm and Duty to Report (EPA, 1999).

Noise and vibration

- NSW Industrial Noise Policy (EPA, 1999)
- NSW Environmental Criteria for Road Traffic Noise (EPA, 1999)
- Technical Basis for Guidelines to Minimise Annoyance Due to Blasting Overpressure and Ground Vibration (ANZECC 1990)
- Environmental Noise Control Manual (EPA 1994)
- Section 19.3 Sleep Arousal Criteria
- Section 171 Construction Noise Guideline.
- Environmental Noise Management Manual (RTA, 2001)
- Chapter 171 Noise Control Guideline, *Construction Site Noise, Environmental Noise Control Manual, 1994.*

Assessing Threatened Species Impacts

- Draft Guidelines for Threatened Species Assessment - Available from Department of Planning.

Assessing Aboriginal Cultural Heritage Impacts

- Draft Guidelines For Aboriginal Cultural Heritage Impact Assessment and Community Consultation - Available from Dept of Planning
- Interim Community Consultation Requirements for Applicants
- <http://www3.environment.nsw.gov.au/npws.nsf/Content/Protecting+Aboriginal+objects+and+places>
- Aboriginal Cultural Heritage Standards and Guidelines Kit - Available shortly on-line through DECC's webpage.

Attachment C:

Guidelines for Developments adjoining National Parks lands.

This guideline has been prepared by the NSW Department of Environment and Climate Change (DECC) for the use by consent authorities when assessing development and/or building applications on land which adjoins or impacts on land managed by the DECC including land reserved or dedicated under the *National Parks and Wildlife Act 1974* and includes areas such as National Parks, Historic Sites, Wilderness areas, Nature Reserves, Regional Parks and State Recreation Areas.

Consent Authority should consider the following issues when assessing proposals adjoining DECC land:

- Corridor Values,
- Erosion and Sedimentation,
- Stormwater Runoff to DECC Land,
- Management Implications and Impacts,
- Fire,
- Boundary Encroachments, and
- Visual Impact.

The potential for cumulative impacts from developments along DECC boundaries should be considered in addition to the case by case considerations.

Corridor Values

Vegetated areas adjoining DECC land play a complimentary role in providing essential linkages for the maintenance of biodiversity and minimise potential edge effects in DECC land. The vegetated areas may have a role in maintaining the viability of local populations and species as DECC as provide valuable wildlife refuge areas.

It is recommended that the corridor values or connective importance of any vegetation on the subject land be considered. Development in areas of native vegetation adjoining DECC land can often result in fragmentation of habitat corridors or isolation with other areas of native vegetation in the locality.

The DECC prefers that vegetation on adjoining land that exhibits these corridor values should be retained and, where necessary, rehabilitated.

Erosion and Sedimentation

Removal of vegetation and disturbance of groundcover from construction activities will expose the soil and increase the risk of erosion. Erosion of sediments may subsequently be transported downstream into DECC land and deposited into creeks, rivers, wetlands and other aquatic habitats.

Changes to the hydrological behaviour of streams outside the reserve system can impact on lands managed by DECC. Developments may change the hydrology by increasing the intensity and frequency of flows as a result of clearing vegetation and increasing the area of impermeable surfaces. This can result in damage to the downstream aquatic habitat by scouring the bed and banks of watercourses. Developments may also cause a concentration of flows thereby increasing the erosion potential downstream.

Accordingly, appropriate erosion and sedimentation control measures should be implemented prior to construction and be maintained for the duration of construction. In some cases, it will be

necessary to prepare detailed sediment and erosion control plans (soil and water management plans) for the proposed development.

The DECC suggest that clearance of native vegetation be kept to a minimum, areas of vegetation be fenced off during construction and disturbed areas be rehabilitated and stabilised as soon as possible following construction.

Runoff to DECC Land

Where adjacent to urban areas the DECC considers the discharge of stormwater to areas of DECC land poses a threat to downstream environments by dispersing weed propagules, altering the nutrient composition and pollutant levels and potentially causing erosion and sedimentation within watercourses. The discharge of stormwater may also impact on Aboriginal sites, which are frequently located in close proximity to water courses. These potential impacts from stormwater have a range of implications for management of DECC land including weed eradication and site rehabilitation.

The DECC considers that The consent authority should assess alternatives to discharging polluted stormwater to DECC lands. Where stormwater does enter DECC lands 'best practice' stormwater treatment measures should be utilised to maximise:

- on-site pollutant retention and removal, and
- infiltration and sub-surface discharge of stormwater.

The design of the stormwater treatment measures should be based on treatment objectives that are commensurate with the values of the downstream environment. In some cases it may be necessary to prepare a stormwater management plan for the proposed development.

As a general rule, infrastructure associated with stormwater treatment should not be located in DECC land. Such proposals where stormwater treatment measures are proposed within DECC land, they are subject to assessment under Part 5 of the *Environmental Planning and Assessment Act, 1979* and approval by the DECC.

Management Implications and Impacts

Development adjoining DECC land has the potential to affect the operation or management of National Park lands. Adjoining development may place additional pressure on maintenance of access, management of Aboriginal sites, weed management and pest control. These impacts may have significant conservation and resource implications for the management of DECC land.

In assessing proposals, The consent authority should consider the impacts associated with development adjoining DECC land. DECC considers that site layout and design should seek to minimise any adverse environmental impacts on DECC land. Public and DECC staff access to DECC land should not be compromised by adjoining developments.

The DECC recommends consideration of the establishment of an appropriate buffer between any development and DECC land. A buffer, where managed effectively, may minimise the impact to conservation values of DECC land.

Where a buffer is not available, consideration should be given to developing appropriate conditions that minimises the potential edge effects from development or building. This might mean planning the development around a particular stand of vegetation, sitting a building back from the DECC boundary or recommending a suitable type of boundary fencing.

Fire

For any proposals adjoining DECC land, The Consent Authority will need to undertake an assessment of the fire risk and should ensure that the provisions of the DIPNR and RFS guidelines *Planning for Bushfire Protection: A Guide for Councils, Planners, Fire Authorities, Developers and Home Owners* [December 2001] are implemented within the area proposed for development. The assessment should also address appropriate fire management practices for the area.

The DECC does not support the clearing of land within DECC land for the creation of fuel reduced zones to protect adjoining development. Accordingly, appropriately designed fire protection zones and firefighting access tracks should be located on the land proposed to be developed.

Boundary Encroachments

Then Consent Authority should ensure that where a proposal shares a common boundary with DECC land, that the subject boundary has been accurately surveyed to ensure there is no encroachment to DECC land as a result of the proposed development.

Visual Impact

The consent authority should take into account the visual impact of development adjacent to DECC land to ensure that it is sympathetic with the bushland surrounds and does not impact upon the recreational amenity of users. This may include measures such as landscaping with local native plant species, implementing buffer areas and use of appropriate colours and building materials.

Other indirect impacts that should be considered

Often the biggest affects to ecological values of conservation areas are indirect impacts that result over time. Once a rural residential or residential subdivision is established the influence of domestic types uses can be pronounced. Aspects that should be considered are:

- Disturbance from domestic pets;
- Introduction and/or creating conditions favourable to the spread of exotic weeds;
- Creating conditions favourable to the establishment or spread of exotic pathogens and animals, such as Phytophthora or starlings.
- Increased informal and inappropriate access (eg trail bikes);
- Increased pressure on maintenance of access;
- Increased road kills;
- Development may impact on the amenity and recreation value of the neighbouring park estate; and
- Neighbours may utilise adjoining park areas as sources of firewood, bushrock or for dumping building or other materials.