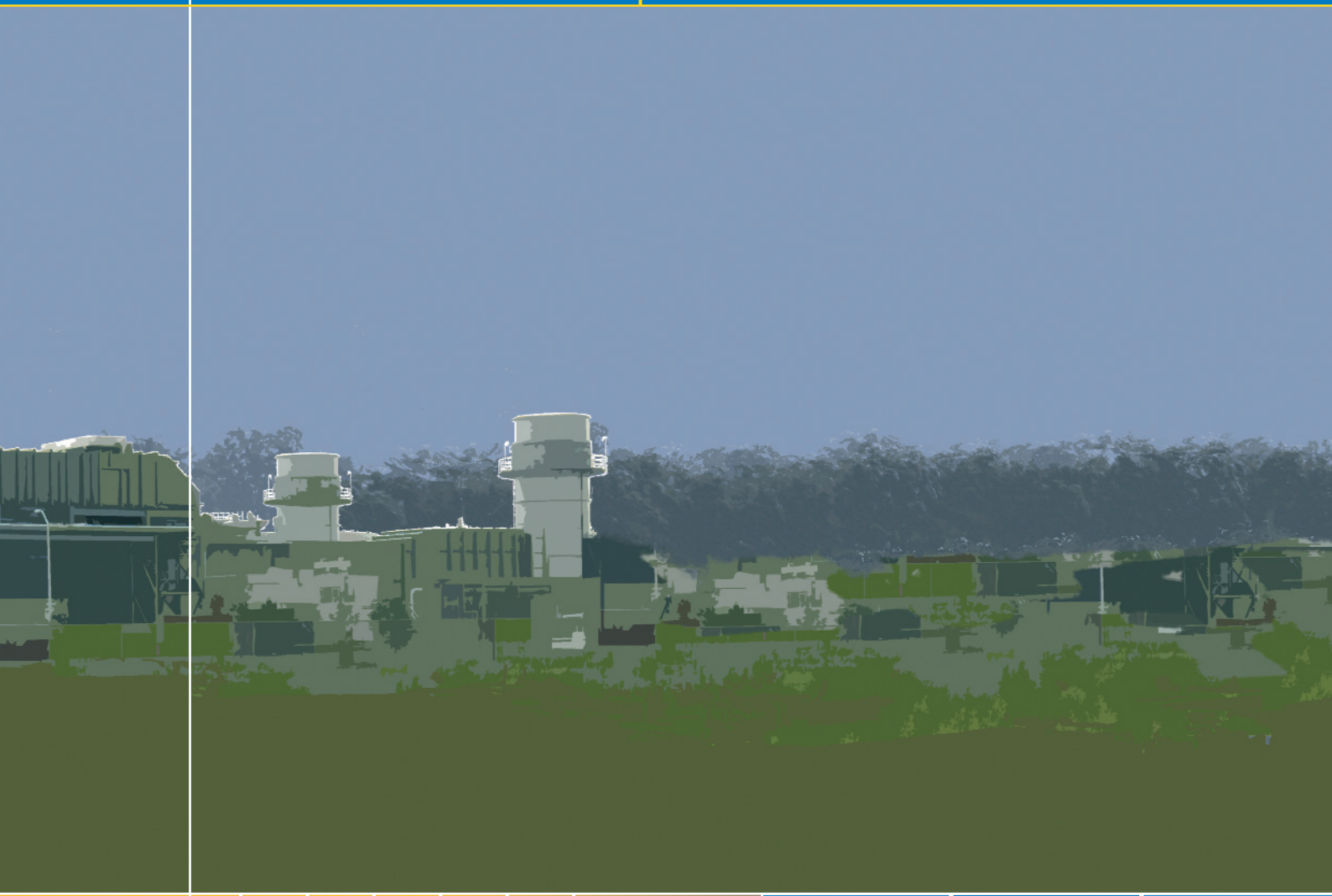
EnergyAustralia

Delta electricity

Marulan Gas Turbine Facilities

Submissions Response & Preferred Project Report



VOLUME 2 | APPENDICES | May 2009

URS

Appendix A
Statutory Authority Responses

MARULAN GAS TURBINE FACILITIES

SUBMISSIONS RESPONSE & PREFERRED PROJECT REPORT

VOLUME 2 | APPENDICES | May 2009

Dinuka McKenzie - DECC submission re Marulan GFPS

From: "Jones Craig" <Craig.Jones@environment.nsw.gov.au>
To: <dinuka.mckenzie@planning.nsw.gov.au>
Date: 17/10/2008 16:50
Subject: DECC submission re Marulan GFPS
Attachments: 20081017 - Exhib. EA submission to DoP minus ACH.pdf; 20081013 - submission on exhib EA.doc

Dinuka,

Pls find attached DECC's submission re Marulan GFPS in word and PDF format.

Please note that I am still awaiting comments in relation to Aboriginal Cultural heritage, and will forward them to you under separate letter.

Thanks

Craig

Craig Jones | Senior Regional Operations Officer | South East Region | Dept. of Environment & Climate Change (NSW) | PO Box 622 Queanbeyan NSW 2620 | p. 02 6229 7002 | f. 02 6229 7006 | e. craig.jones@environment.nsw.gov.au

Your reference : S08/00661
Our reference : DOC08/42935 FIL07/13611
Contact : Craig Jones, 02 6229 7002

Ms Dinuka McKenzie
Senior Planner - Energy and Water
Major Infrastructure Assessments
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Dear Ms McKenzie

RE: Marulan Gas Fired Power Stations – Public Exhibition of Environmental Assessments (MP07_0174, MP07_0175 and MP07_0176)

I refer to your letter of 5 September 2008, seeking comments from the Department of Environment and Climate Change (DECC) in relation to the exhibited Environmental Assessments (EA) for the Marulan Gas-Fired Power Stations proposal.

DECC has reviewed the EA and provides comments in relation to biodiversity and noise impacts of the proposals at ATTACMENT I. Please note that the comments relate to the proposals as a whole unless otherwise stated. DECC also intends to make a separate detailed submission in relation to the proposal's impacts on Aboriginal Cultural heritage.

The currently proposed location of the power station will result in the loss of 22 hectares of high conservation value grassy woodland, including important habitats for threatened species. Accordingly, DECC recommends that the proponents assess how these impacts can be avoided. For example, large areas of cleared land are available in the area that are unlikely to be similarly constrained.

In the event that the proponent concludes that impacts at this location cannot be avoided, DECC advises that a much larger offset than currently proposed would be necessary to maintain or improve biodiversity values. ATTACHMENT II provides guidance on offset principles.

DECC would be pleased to further discuss these comments. Please contact Craig Jones at the DECC's Queanbeyan office on 02 6229 7002 if you require any further information.

Yours sincerely

17/10/08

DAVID WINFIELD
Head of Operations - South East Region
Environment Protection and Regulation

The Department of Environment and Conservation NSW is now known as the Department of Environment and Climate Change NSW

PO Box 622, Queanbeyan NSW 2620
11 Farrer Place, Queanbeyan NSW
Tel: (02) 6229 7002 Fax: (02) 6229 7006
ABN 30 841 387 271
www.environment.nsw.gov.au

ATTACHMENT I – DECC Detailed Submission in relation to exhibited Environmental Assessment for the proposed Marulan Gas Fired Power Stations

1. Noise Impact Assessment

a) Identification of noise sensitive receivers

The Noise Impact Assessment (NIA) identifies potentially most affected noise receivers in the area surrounding the proposed site. The receivers are all rural residential receivers and the NIA lists twelve receivers designated R15 to R26.

b) Existing Ambient Noise Levels

The NIA provides a summary of results of unattended ambient noise monitoring. The unattended monitoring was conducted between Sunday 7th of May 2006 and Thursday 18th of May 2006. DECC notes that periods of inclement weather appear to have been appropriately removed from the data set before the information was processed. Table 1 below reproduces the ambient noise data presented in the NIA.

Table 1: Summary of Ambient Noise Levels

Monitoring Locations	Rating Background Level (RBL)		
	Day	Evening	Night
1. R26	28	30	31
2. MS Site	27	29	29
3. R24, R25	29	42	31
4. R15, R16, R17, R18, R19, R20, R21, R22, R23	27	29	29

The Proponent indicated that the background (RBL) noise level for all the sites should be 30 dB(A) and this approach is consistent with Industrial Noise Policy (INP) 2000.

c) Project Specific Noise Levels

The proponent concluded that the Project Specific Noise level (PSNL) of 35 dB(A) $L_{Aeq,15\ min}$ apply to all affected sites surrounding the proposed facility and that a Sleep disturbance criteria of 45 dB(A) L_{AMax} apply. DECC agrees with these recommended noise levels as they are consistent with the INP 2000.

d) Construction Activity

DECC note that limited construction activity will occur at both the Delta Electricity and Energy Australia sites for construction and set up of turbines and infrastructure. DECC will regulate construction activity through time of use that construction can occur. Details of this are provided in the attached licence limits recommended at the end of this document.

e) Meteorological Conditions

DECC note that the proponent has processed hourly data for an entire year (2006) using CALMET and TAPM using two meteorological stations in the area surrounding Marulan. NAU are unsure of the distances between the site and the met stations and are unsure of the details that have been used to process the measured met data against CALMET and TAPM. NAU will recommend in the attached licence limits that compliance be determined against day time and evening wind speeds of 3m/s taken at 10 metres above the ground surface, and inversion conditions.

f) Predicted Noise Level Impact

Noise levels were predicted by the proponent using the Environmental Noise Model (ENM) applying prevailing meteorological conditions for the scenarios applied to day, evening and night time periods.

No correction has been applied to predicted noise levels regarding modifying factors associated with low frequency noise impacts (Reference Chapter 4 INP 2000). DECC conclude that the proponent will eliminate all low frequency noise impacts from the turbines.

The following table contains predicted noise levels based on Table 12 contained within the NIA in Section 7.1.2.

Table 2. Predicted Noise levels (dBA) for modelled scenarios.

Receiver	Time	EA & DE Cumulative Noise Impact
R15	Day	30
	Evening	32
	Night	31
R16	Day	31
	Evening	33
	Night	32
R17	Day	31
	Evening	34
	Night	32
R18	Day	30
	Evening	32
	Night	31
R19	Day	31
	Evening	32
	Night	32
R20	Day	33
	Evening	35
	Night	35
R21	Day	33
	Evening	35
	Night	35
R22	Day	30
	Evening	34
	Night	32

	Day	*39*
	Evening	**41**
R23	Night	*40*
	Day	*40*
	Evening	**43**
R24	Night	**42**
	Day	27
	Evening	36
R25	Night	34
	Day	37
	Evening	*38*
R26	Night	*38*
Noise Limit dB(A)		**35**

DECC does not normally licence to noise levels more than five decibels above the PSNL. DECC understand the Department of Planning (DoP) would assign acquisition rights to the receivers greater than 5 decibels above the PSNL identified in Table 3 above highlighted in **BOLD**.

DECC understands that DoP would assign architectural treatment rights to the receivers predicted to be affected by noise levels between three and five decibels above the PSNL. The relevant receivers are highlighted above in Table 3 above in *grey shading* and in italics.

DECC recommends that acquisition and architectural treatment rights be granted on the basis of the noise levels predicted in the EA, without the need for noise monitoring to confirm levels. This recommendation is made on the basis that the proponent presents, and the DECC accepts, the modelling as reasonably accurate, and to prevent the potential for lengthy disagreements about monitoring results.

The recommended daytime, evening and night time licence noise limits below apply to any receiver that does not have a negotiated agreement with the proponent including acquisition rights.

g) Road Traffic Noise

The EA indicates that road traffic noise impacts are likely to be limited and NAU accept this conclusion.

h) Vibration

The vibration impacts associated with construction are expected to be minimal as the affected receivers are separated by significant distance. Therefore DECC accept that vibration impacts will not be noticeable.

i) Recommended License Noise Limits.

DECC recommends inclusion of the following conditions in any consent that may be issued to the proposal, and would be mirrored in any Environment Protection Licence issued.

L6.1 Noise from the premises must not exceed the sound pressure level (noise) limits presented in the Table 6.1 below. **The noise limits apply to the cumulative noise impacts of both Delta Electricity and Energy Australia facilities**. Note the limits represent the sound pressure level (noise) contribution, at the nominated receiver locations in the table.

Table 6.1 - Noise Limits (dB(A))

Location	Day	Evening	Night	
	$L_{Aeq(15\ minute)}$	$L_{Aeq(15\ minute)}$	$L_{Aeq(15\ minute)}$	L_{Amax} or $L_{A1(1minute)}$
R15,R16, R17, R18, R19, R20, R21, R22	35	35	35	45
R25	36	36	35	45
R26	38	38	38	45

- DECC recommend that DoP may wish to consider that architectural treatment be applied to receiver R26.
- DECC are unable to recommend licence limits to receiver R23 and R24 and DECC would expect that DoP would require that property acquisition be applied to these receivers.
-

L6.2 For the purpose of Condition 6.1:

- Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays,
- Evening is defined as the period from 6pm to 10pm
- Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays

L6.3 Noise from the premise is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, to determine compliance with the noise level limits in Condition **L6.1.**

Where it can be demonstrated that direct measurement of noise from the premises is impractical, the DECC may accept alternative means of determining compliance. See Chapter 11 of the NSW Industrial Noise Policy.

The modification factors presented in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.

L6.4 The noise emission limits identified in Condition **L6.1** apply under meteorological conditions of wind speed up to 3 metres per second at 10 metres above ground level, and temperature inversion conditions.

Noise Compliance Monitoring

L6.5 A noise compliance assessment for the operations of the facility shall be submitted to the DECC within three (3) months of commencement of Stage 2 operations. The assessment shall be prepared by a suitably qualified and experienced acoustical practitioner and demonstrate compliance and that no low frequency noise emissions shall be emitted from the facility

demonstrating compliance with the New South Wales Government's Industrial Noise Policy (INP 2000) Chapter 4 Modifying factors.

L6.6 All construction work associated with the development must be conducted between 7am and 6pm Monday to Friday and between 8am and 1pm Saturdays and at no time on Sundays and public holidays, unless inaudible at any residential premises. Inaudible means not to be heard at the nearest most affected receiver(s).

Recommended Condition of Consent

The proponent shall implement the commitments made in the Draft Statement of Commitments in the EA in specific relation to noise

2. Biodiversity Impact Assessment

DECC has reviewed the Biodiversity Impact Assessment Report prepared by URS lodged with the Joint Concept Application and wishes to raise the following matters.

a) Impacts on Tree Hollow Resources

The size classes of the hollows and the number of hollows in each of the hollow-bearing trees to be removed and retained have not been provided in the report. This does not allow for adequate comparison of the tree hollow resources to be removed for the proposal with those to be retained.

b) Impacts on Threatened Species

DECC has identified that the key threatened species impacts of the proposal are the loss of habitat for Eastern False Pipistrelle, Hooded Robin and Diamond Firetail and that these impacts have not been appropriately assessed.

Stag-watching surveys do not appear to have achieved the coverage that would discount the use of hollow-bearing trees and stags for breeding by the Eastern False Pipistrelle in the areas to be cleared for the proposal. The stags on the indicative Delta Electricity Facility site do not appear to have been stag-watched and stag-watching location 4 on Figure 3 does not correlate with any locations of hollow-bearing trees or stags on Figure 6. The loss of breeding sites would have significant effects on the viability of the local population of this species and DECC does not support such impacts.

The presence of the Hooded Robin in cleared areas and riparian vegetation adjacent to the Wollondilly River does not rule out its use of the woodland vegetation to be removed by the proposal. The report states that the loss of 22ha of woodland would not have significant detrimental impacts on this species, but various studies have suggested that the species abandons woodland habitats when patch size drops below about 100ha. The lack of other records for this species in the locality and its sedentary habits suggest that the woodland on the Marulan site could be very important for the Hooded Robin. Hence the proposal could have significant effects on the viability of the local population of this species and DECC does not support such impacts.

The Diamond Firetail is likely to be resident on the site as it was recorded in 2006 and 2007. The proposal will reduce foraging habitat for the species and the patch size of the vegetation on the site, which could render the remaining habitat unsuitable. The lack of previous records for the species in the locality suggests that the woodland on the Marulan site could also be very

important for the Diamond Firetail. Hence the proposal could have significant effects on the viability of the local population of this species and DECC does not support such impacts.

c) Impacts on Endangered Ecological Communities

The report states that the Tableland Hills Grassy Woodland contains an area with a small number of scattered individuals of Blakely's Red Gum. The presence of this tree species in conjunction with a grassy groundcover including *Austrostipa scabra* and *Themeda australis* (as stated in the report) indicates to DECC that this part of the site is likely to comprise the White Box, Yellow Box, Blakely's Red Gum Woodland endangered ecological community (EEC). Furthermore, the report has not appropriately considered the potential for cleared areas containing native grasses and isolated paddock trees to comprise part of the EEC and has not identified these tree species. The impacts of the proposal on this EEC have not been assessed and there is no map to indicate where the EEC occurs on the site. These matters require further clarification by the proponent.

d) Habitat Fragmentation and Vegetation Loss

DECC has identified that the Tableland Hills Grassy Woodland to be cleared for the proposal has high conservation values. The proponent has not indicated why this impact cannot be avoided by the use of existing cleared land in the vicinity of the site for the proposal.

The proposed shared infrastructure corridor increases fragmentation of remnant vegetation on the site. The proponent has not indicated why existing cleared areas cannot be used for the corridor to avoid or mitigate vegetation disturbance and fragmentation.

e) Offsets

The offsets proposed for the clearing of 22ha of Tableland Hills Grassy Woodland containing habitats for eight threatened species comprise 32ha of adjoining woodland with similar habitat attributes and 6.8ha of cleared grassland to be revegetated mostly with riparian vegetation. The report does not indicate whether the EEC containing Blakely's Red Gum will be cleared and hence does not provide offsets for it.

DECC has identified that the extent of the proposed offset (1:1.5) is not adequate to meet the improve-or-maintain test. A much higher offset ratio is required. The proponent will also need to factor any clearing of EEC into the offset calculation following further assessment of the impacts of the proposal on the EEC.

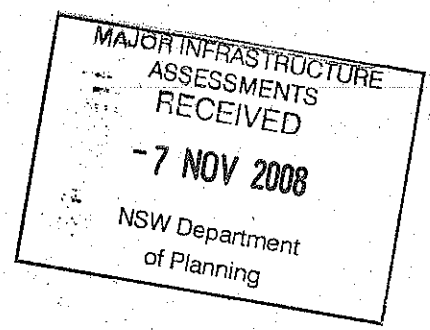
f) Conclusions and Recommendations

DECC does not support the proposal in its current location. The habitats to be affected are of high conservation value and the offsets provided fall well short of improving or maintaining biodiversity values.

DECC concludes that alternative locations on cleared land nearby would avoid or mitigate impacts on biodiversity values for the facilities and recommends that the proponents should investigate these other site options.

If the Minister for Planning were to approve the proposal in its current location, then DECC concludes that an appropriately secured and managed offset much larger than the offset proposed would be required to improve or maintain biodiversity values. In addition DECC recommends that the existing cleared areas on the site be used for the proposed shared infrastructure corridor to minimise fragmentation and disturbances to remnant vegetation. DECC also recommends that the proponent provide a map of the vegetation containing Blakely's Red Gum on the site and areas of cleared grassland with isolated paddock trees likely to comprise the White Box, Yellow Box, Blakely's Red Gum Woodland EEC, an assessment of the impacts of the proposal on this EEC and proposed offsets for any loss of EEC before the application is determined.

Our reference : FIL07/13611
Contact : Craig Jones, 02 6229 7002



Ms Dinuka McKenzie
Senior Planner - Energy and Water
Major Infrastructure Assessments
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Dear Ms McKenzie,

RE: Marulan Gas Fired Power Stations – Public Exhibition of Environmental Assessments (MP07_0174, MP07_0175 and MP07_0176)
Aboriginal Cultural Heritage Assessments

I refer to your letter of 5 September 2008, seeking comments from the Department of Environment and Climate Change (DECC) in relation to the exhibited Environmental Assessments (EA) for the Marulan Gas-Fired Power Stations proposal.

This letter provides DECC's submission in relation to the assessment of Aboriginal heritage impacts of the proposal.

DECC prefers subsurface testing to be carried out prior to consent, in order to assess the impact to Aboriginal heritage. DECC notes the proponent's preference, documented in the Environmental Assessment (EA), that subsurface testing will be carried out prior to construction. This essentially constitutes salvage, since by that time options to avoid impact will be limited or absent. DECC notes that the nearby Lynwood quarry project found high densities of subsurface Aboriginal heritage objects in pre-construction salvage and this may occur for the Marulan Power Station project.

DECC has received the relevant archaeological reports and site cards for the Aboriginal Heritage Management System (AHMS).

DECC is satisfied that adequate Aboriginal community consultation has occurred. DECC supports the recommended Cultural Heritage Assessment and Management Report.

DECC recognises that, given the status of this Major Project as critical infrastructure, the Department of Planning may be inclined to approve the proposal on the basis of salvage prior to construction. In this event, DECC recommends that conditions of consent require an Aboriginal Heritage Management Plan to be prepared to guide salvage and construction. This Plan should include procedures to be followed in the event of identification of potential burials. The Plan should also include procedures to be followed in the event of identification of highly significant

PO Box 622, Queanbeyan NSW 2620
11 Farrer Place, Queanbeyan NSW
Tel: (02) 6229 7002 Fax: (02) 6229 7006
ABN 30 841 387 271
www.environment.nsw.gov.au

Aboriginal heritage objects. DECC recommends that conditions of consent require consultation with the relevant Aboriginal community and community involvement in salvage and relocation of Aboriginal heritage objects.

If you have any questions with respect to these matters, please contact in the first instance Craig Jones on 02 6229 7002.

Yours sincerely

05/11/08

DAVID WINFIELD
Head of Operations - South East Region
Environment Protection and Regulation

Australian Government
Department of Defence
Defence Support Group

Received by email: 13.10.08

2001/34570/2
LPSI/OUT/162/2008

Ms Dinuka McKenzie
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Dear Ms McKenzie

PROPOSED MARULAN GAS FIRED POWER STATIONS NSW

1. I refer to your letter dated 5 September 2008 (Your Ref: S08/00661) advising of a proposal for two gas-fired power stations and associated infrastructure to be constructed near Marulan in NSW. The proposal will include four exhaust stacks up to 40m above ground level (AGL) in height and the above mean sea level elevation of the site is approx 605m AHD. From an aviation safety perspective, it is not only the height of the exhaust stacks which need to be assessed but also the impact of the exhaust plume emanating from the stacks.

2. Defence has assessed the proposal for any possible impact on the safety of military flying operations. The Department advises the proposed power stations will be located outside any areas affected by the Defence (Areas Control) Regulations (DACR). The DACR control the height of objects (both man-made structures and vegetation) and the purpose for which they may be used within approximately 15km radius of Defence airfields.

3. The Civil Aviation Safety Authority (CASA) has published an Advisory Circular AC 139-05(0) - *Guidelines For Conducting Plume Rise Assessments,* dated June 2004. This Circular identifies the need to assess the potential hazards to aviation because the vertical velocity from gas efflux may cause airframe damage and/or affect the handling characteristics of an aircraft in flight. The Advisory Circular defines hazardous gaseous efflux as being the vertical and horizontal limits of the exhaust plume at which the vertical velocity reduces to a value of 4.3 metres/second (m/s).

4. A plume rise assessment has been undertaken for the two power station exhaust stacks and the exhaust plume will rise to a height of approximately 852m AGL with horizontal extent of 262m (where the vertical velocity reduces to 4.3m/s). As the exhaust plume will be higher than 110m AGL the proponent will need to have the proposal assessed by CASA for the potential hazard to aircraft operations.

5. The Department of Defence has no objection to the proposal subject to a hazard assessment being undertaken by CASA. Please direct any questions to Mr Gary Lee on telephone (02) 6266 8187.

Yours sincerely

John Kerwan
Director Land Planning & Spatial Information
BP3-1-A052
Department of Defence
CANBERRA ACT 2600

13 October 2008

For information:
Regional Manager DS-ACT/SNSW

Dinuka McKenzie - Marulan Gas Fired Power Stations

From: Darren Wallett
To: Dinuka McKenzie
Date: 13/10/2008 16:02
Subject: Marulan Gas Fired Power Stations
CC: peter.lansdown@dwe.nsw.gov.au
Attachments: Marulan Gas Fired Power Stations Exhibition Response.pdf

Hi Dinuka,

I have attached DWE's response to the exhibition of the Marulan Gas Fired Power Stations. A hard copy is in the mail.

Regards Darren.

Darren J Wallett

Planning Coordinator-Southern Central
Major Projects, Mine Assessments & Planning
NSW Department of Water and Energy

PO Box 5336
Wagga Wagga NSW 2650
Ph 0269 329119
Mobile 0427 274 283
Email darren.wallett@dnr.nsw.gov.au

NSW Government
Department of Water & Energy

Contact: Darren Wallett
Phone: (02) 6932 9119
Mobile: 0427 274 283
Fax: (02) 6932 9 110
Email: darren.wallett@dnr.nsw.gov.au

Ms Dinuka McKenzie
Senior Planner-Energy and Water
Major Infrastructure Assessment
NSW Department of Planning
GPO Box39
SYDNEY NSW 2001

Our Ref: ER20123
Your Ref: S08/00661

13 October 2008

Dear Ms McKenzie,

RE: Marulan Gas Fired Power Stations-Adequacy Review of Environmental Assessments (MP 07_0174, MP 07_0175 and MP 07_0176)

I refer to your letter of 5th September 2008 inviting the Department of Water and Energy (DWE) to make a submission during the exhibition of the Environmental Assessments (EA) for the Marulan Gas Fired Power Stations (MP 07_0174, MP 07_0175 and MP 07_0176), Goulburn-Mulwaree Local Government Area.

The Department advises that it has reviewed the Joint Concept Application EA, and the two Project Application EA's and it would appear that issues raised during the Test of Adequacy submission relating to the proposed gas pipeline route and water management have not been addressed prior to exhibition.

Consequently, DWE is unable to provide more specific information on relevant aspects of the proposal to assist the Department of Planning (DoP) assess the proposed development, to that which has been detailed below.

Gas Pipe Line Route

In terms of the proposed gas pipeline route, the Joint Concept Application and two Project Application EA's have identified a broad pipeline corridor (with lands specified within that corridor) that outlines two possible options for that route within the corridor. One of those options is indicated as "preferred" and it is stated that "an alignment will be refined during subsequent approvals".

As the pipeline is an essential element of the overall project, it is our contention that one or the other (if not both), of the Project Application EA's should have included a more detailed environmental assessment of the corridor or the preferred route to allow an aderquate assessment of the "entire" project.

Consequently, the only information DWE is able to offer is that the proposed gas pipe line will require a licence under the *Pipelines Act 1967*. This is a statutory process which is not exempt from Part 3A of the *Environmental Planning and Assessment Act 1979*, and until the process is complete, DWE are unable to advise of the likelihood of a licence being granted.

It is recommended that applicant be advised of the requirement for the licence through the conditions of consent.

Water Supply

It should be noted that whilst all three of the EA's have highlighted potential water sources for the projects, there does not appear to be a commitment that any of the sources identified in the EA's have been secured.

Whilst it is recognised that the main water sources for the project identified in the EA's are not administered by DWE, it is the view of the Department that prior to being granted a Ministerial Approval to construct the proposed development, the proponent should be required to demonstrate they have the ability to secure the nominated water supplies.

Consequently, it may be prudent to inform the proponent that should there be any future requirement to obtain water licences from sources administered by DWE due to complications with the nominated water sources, these water licences are outside any approval issued under Part 3A of the *Environmental Planning and Assessment Act 1979*, can not be guaranteed and are subject to commercial risk.

In terms of capturing surface water runoff from the site, the Applicant will require surface water licences should the total water storage on the subject site exceed the Maximum Harvestable Right Dam Capacity (MHRDC) in accordance with section 53 of the *Water Management Act 2000*. However, should water storages be constructed to manage environmental impacts from the disturbance of the site, DWE may exempt these storages from the MHRDC.

DWE requests a condition be included in the development consent that requires the Applicant to formally request an exemption from DWE for any water storages that are required for legitimate environmental management purposes.

Waterway Crossings

Whilst the pipeline route has not been finalised for the project, the proponent has been unable to provide specific information on the requirement for waterway crossings in the Project Application EA's. Instead, the Applicant has nominated that this information would be identified prior to construction.

DWE requests a condition of consent be included which requires the Applicant to identify any watercourse crossings necessary for the project and submit the proposed crossing designs to DWE within a Surface Water Management Plan to ensure they are consistent with NSW Government Policy.

Waste Storage Structures

DWE requests a condition of consent be included which requires the Applicant to identify all waste storages, the proposed construction details, and methodology to demonstrate that all these structures are compacted to an impermeability equal to or greater than $1x10^{-9}$ metres/second to ensure minimal risk of groundwater aquifers being impacted by leachate from the storages.

Groundwater Interception

The Applicant did not demonstrate in the EA's that groundwater would not be intercepted during construction of the proposed power stations, and proposed to undertake more detailed investigations during the pre tender phase of the project.

Consequently, as DWE can not determine if a licence under the *Water Act 1912/Water Management Act 2000* is required for groundwater interception, it is requested a condition of consent be included which requires the Applicant to cease construction and contact DWE should groundwater be intercepted during construction.

Further Information

Should you require further information or clarification of the points raised below, please don't hesitate to contact Darren Wallett, Planning Coordinator-Southern Central, on phone (02) 6932 9119 or 0427 274 283.

Yours sincerely

Darren Wallett
Planning Coordinator-Southern Central
Major Projects and Assessments

Hawkesbury-Nepean CMA CATCHMENT MANAGEMENT AUTHORITY

08-0127

Ms Dinuka McKenzie
Senior Planner
Energy and Water
Major Infrastructure Assessments
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Contact: Robert Adam
Phone: 02 4828 6775
Fax: 02 4828 6750
Email: Robert.Adam@cma.nsw.gov.au
Your ref: S08/00661
Our ref: 08-0127
File: CGO00537

9 October 2008

Dear Ms McKenzie

Subject: Marulan Gas-fired Power Stations - Exhibition of Environmental Assessment (MP 07_0174, MP 07_0175 and MP 07_0176)

I am writing in reference to a letter of 5 September 2008 from Department of Planning inviting comments from Hawkesbury-Nepean Catchment Management Authority (HNCMA) on the Environmental Assessments for the Marulan Gas-fired Power Stations, (MP 07_0174, MP 07_0175 and MP 07_0176).

Catchment Management Authorities are approval authorities for clearing of native vegetation under the *Native Vegetation Act 2003* (NV Act), and are responsible for implementing the objectives of this Act. These include:

- "to prevent broad scale clearing unless it improves or maintains environmental outcomes, and
- to protect native vegetation of high conservation value having regard to its contribution to such matters as water quality, biodiversity, or the prevention of salinity or land degradation"

HNCMA supports activities that achieve the objects of the NV Act, and considers proposed developments should be located and designed to minimise impacts on native vegetation, with any clearing required mitigated by establishing offset areas.

I note that the project is a development to which Part 3A of the *Environmental Planning and Assessment Act 1979* applies and the project will therefore be assessed and determined by the Minister for Planning. An approval under the NV Act for the clearing of native vegetation as part of the proposed development is therefore **not** required (NV Act s25(g)). As such, HNCMA has no approval role for any clearing of native vegetation required for this development.

It is understood that Priority E4 of the NSW State Plan, the Catchment Condition Targets of the Hawkesbury-Nepean Catchment Action Plan, and the objects of the NV Act represent NSW government policy on native vegetation. Collectively, these require a maintenance or increase in the extent of native vegetation, an improvement in native vegetation condition, and the need for clearing of native vegetation to result in an "Improved or Maintained" environmental outcome through the use of secured off-set areas.

Determination of whether a clearing and offset proposal will result in an improved or maintained environmental outcome is made by the *Environmental Outcomes Assessment Methodology*, or the *BioBanking Assessment Methodology*. These have been authorised by the Minister for this purpose, and are used for assessment of clearing proposals under the NV Act, and NSW Biodiversity Banking and Offsets Scheme (i.e. BioBanking) respectively. The Environmental Outcomes Assessment Methodology (EOAM) provides a scientifically recognised and established means of determining vegetation values and the impacts of clearing. The "PVP developer" is the assessment mechanism used to apply the EOAM to specific vegetation clearing proposals requiring approval under the NV Act. The EOAM also provides the basis of the assessment methodology used in the BioBanking Scheme.

My comments are based on the Environmental Assessment (EA) documentation provided for the project applications MP 07_0174, MP 07_0175 and MP 07_0176.

Outline of proposed development

The 117 ha site is located approximately 12 km north of Marulan and 25 km east of Goulburn.

Energy Australia and Delta Electricity each propose the development of an electricity generating facility consisting of open gas turbines and associated infrastructure at a site adjacent to the existing TransGrid Marulan 330 / 132kV Switchyard site. The two separate facilities would be constructed side by side on the site and owned and operated independently. Natural gas for the turbines will be sourced via an underground lateral pipeline from the Moomba to Sydney Gas Pipeline. This is located approx. 5 km south of the development site. The preferred route for the lateral pipeline has not been determined, and no assessment of this part of the proposed development is given in the EA. A corridor for the part of this lateral pipeline within the development site is included in the EA.

Review of Environmental Assessment

The following comments deal with the adequacy of the EA in assessing the environmental significance of the native vegetation in the development areas, the impacts of the proposed development on this vegetation, and the extent to which any mitigation measures proposed are realistic and effective. Recommendations are given on how the proposed development could reasonably reduce the impacts on native vegetation and associated biodiversity. These comments are provided in our capacity as the authority for implementing the *Native Vegetation Act 2003* in the Hawkesbury-Nepean catchment.

The recommendations made are based on application of NSW government policy and NV Act objects and principles to the proposed development.

Native vegetation at the development site

The development site is located within an extensively cleared pastoral landscape, characterised by large areas of cleared grazing land interspersed with remnant patches of native forest. The site itself occupies one of these remnant patches, together with a smaller area of adjacent cleared grazing land.

The general nature and distribution of native vegetation at the development site as described in the EA is as follows:

Approximately 63 ha of the 117 ha development site is covered in a mature and relatively intact eucalypt woodland, classified as Tableland Hills Grassy Woodland. This contains a well developed canopy layer, with a dense groundcover layer comprising native and exotic grasses and herbs. The shrub layer is sparse to absent.

Approximately 46 ha of the development site are covered in grassland with scattered remnant trees, resulting from clearing of the original woodland vegetation.

These areas have been extensively modified by clearing and grazing, and the introduction of exotic pasture species. Patches of native grasses are present but the areas are generally dominated by exotic species. The grassland areas also include 'moderate to severe' infestations of the noxious weed Serrated Tussock.

The riparian zone along both sides of the Wollondilly River for several kilometres in the vicinity of the site is occupied by Riverbank Forest, dominated by mature River She-oaks. In the northern portion of the development site the river features broad (50 – 100m wide) banks with steep levee banks rising to the surrounding cleared farmland.

Approximately 1.5 ha of Snow Gum Woodland is present near the southern end of the corridor of the proposed gas pipeline. The remnant features a moderately dense canopy, no shrubby understorey and either a dense (EA p.11-6) or sparse (EA p.11-10) grassy understorey.

Conservation value of native vegetation

The EA does not adequately identify the conservation values of native vegetation present in the development area. Specifically:

1. The only criteria used in the EA to determine the conservation value of native vegetation is whether the vegetation is an Endangered Ecological Community (EEC) or is a threatened species, listed under the TSC or EPBC Acts. While these are valid criteria, there are many other factors that also determine conservation value. The EA has ignored these, and therefore has underestimated the extent of vegetation of conservation significance. The criteria generally recognised as determining high conservation value native vegetation include:
   - EECs
   - Overcleared vegetation types
   - Vegetation in overcleared Mitchell Landscapes
   - Vegetation in Regional Biodiversity Corridors
   - Riparian vegetation
   - Known habitat for threatened flora or fauna species

2. The Snow Gum Woodland present within the site may be included within the 'Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodlands of south-eastern NSW' association of woodlands which has been nominated for listing as an Endangered Ecological Community in NSW. Although not yet listed by the NSW Scientific Committee, the nomination of this community is nevertheless an indication of its high conservation value. The EA does not recognise the conservation value of this vegetation.

3. Any vegetation type of which more than 70% has been cleared in the Catchment Management Area is listed as an overcleared vegetation type. Riverbank Forest (90% cleared) and Tableland Hills Grassy Woodland (99% cleared) are both listed as overcleared vegetation types. The Snow Gum Woodland present within the site – if included within the 'Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodlands of south-eastern NSW' – may be 95% cleared. All these vegetation types must therefore be considered as having high conservation value. Any overcleared vegetation type can not be approved for clearing under the NV Act, if the vegetation is in moderate to good condition. The EA does not recognise the overcleared status of these vegetation types.

4. The EA does not adequately consider the presence of biodiversity corridors and connectivity of the vegetation at a local or regional scale.

The EA acknowledges that 'the strip of Riparian vegetation (i.e. Riverbank Forest) is significant in a regional context due to the connectivity it provides between other patches of native vegetation along the Wollondilly River' (p. 4-12). However the EA fails to consider that the Wollondilly River also connects the site to the *Abercrombie River to Morton National Park Regional Biodiversity Corridor* approximately 17 km to the south-west and the *Bargo to Morton National Park Regional Biodiversity Corridor* approximately 5 km to the north east. The connectivity of native vegetation is recognised as contributing to conservation value.

The remnant vegetation at the site – including both Riverbank Forest and Tableland Hills Grassy Woodland – is therefore a significant component of regional biodiversity corridors and the impacts of any proposed clearing should be assessed within this context.

The significance of the impact on the removal of remnant vegetation at the site has not been adequately considered.

Impacts of the Proposed Development

The development as proposed will require the removal of approximately 22 ha of the 63 ha of Tableland Hills Grassy Woodland present within the development site. The EA indicates that this community provides a range of habitats suitable for a diversity of fauna species and - given that Tableland Hills Grassy Woodland is listed as an overcleared vegetation type - I consider that the clearing of approximately 30% of this community from the development site to be a significant impact.

The development as proposed will also require the removal of approximately 12.5 ha of the 51 ha of Cleared Grassland present at the site. Although these areas are reported to be dominated by exotic species, the EA notes that grassland areas 'contained isolated hollow-bearing paddock trees and stags'...'which are likely to contain habitat for birds and potentially micro-bats' (p. 4-11). However, the number of hollow-bearing trees to be removed is not indicated.

The EA does not adequately identify the conservation values of native vegetation nor adequately detail the impacts of the proposed development on native vegetation, and therefore does not allow the extent of environmental impacts of the proposal to be determined.

As noted above, the site is of high conservation value as the remnant vegetation:

- includes two vegetation types listed as overcleared and one that is potentially overcleared,
- provides connectivity between two Regional Biodiversity Corridors and
- provides potential habitat for a diversity of fauna species including Threatened Species

I therefore conclude that the impacts of the proposed development are substantially higher than presented in the EA.

The EA does not identify why a remnant area of high conservation value native vegetation was selected for the development, when extensive areas of cleared land exist adjacent to the site, and appear to satisfy the same selection criteria.

I also note that no environmental assessment of the proposed lateral gas pipeline from the turbines to the Moomba to Sydney Gas Pipeline has been undertaken. This part of the proposed development has the potential to substantially increase the impacts of the entire development on native vegetation and associated biodiversity.

As this pipeline is an integral part of the proposed development it is not possible to conclusively assess impacts of the development in their entirety without it. This is a major deficiency in the environmental assessment process and for this reason I consider the EA to be substantially inadequate.

Mitigation of Impacts and Offsets

The EA states that 'a biodiversity offsets package has also been proposed, in consultation with DECC, to compensate for direct permanent loss of biodiversity values' (p. ES-8) and that the proposed strategy 'adopts the DECC principles for offsets' (p. 11-20). The main features of the 'biodiversity offsets package' are:

- Permanent conservation of the 32.3 ha of Tableland Hills Grassy Woodland remaining in the development site after clearing, and
- Rehabilitation of 9 ha of riparian land along a degraded drainage line within the development site.

The two schemes presently administered by DECC that provide for the use of offsets are Property Vegetation Plans (PVPs) under the *Native Vegetation Act 2003* and the *Threatened Species Conservation Amendment (Biodiversity Banking) Act 2006.* The assessment methodologies utilised for both offset and development sites are based on the *BioMetric* and *Threatened Species Tools*. The methodology establishes the principles and circumstances where a development and corresponding offset area/s can be regarded as improving or maintaining biodiversity values. This includes where the impacts of clearing on biodiversity values at the development site are offset by the beneficial impacts of management actions at offset sites.

Although the biodiversity offsets package proposed for the development adopts some DECC principles, it does not satisfy other key criteria for assessing the suitability of offsets.

As noted above, the *Environmental Outcomes Assessment Methodology* (EOAM) provides a scientifically recognised and established means of determining vegetation values and the impacts of clearing. It has been authorised by the Minister for the purpose of determining whether a clearing and offset proposal will result in an improved or maintained environmental outcome. Relevant to this proposed development, the EOAM indicates that:

- 'clearing of native vegetation is not permitted in vegetation types or landscapes that are already overcleared or listed as threatened at the national, regional or landscape scales, unless the vegetation is in low condition',
- 'clearing of overcleared vegetation does not improve or maintain environmental outcomes for biodiversity' and
- 'offsets cannot be used to balance the impacts of clearing in these circumstances.'

The description of the Tableland Hills Grassy Woodland provided in the EA (p. 11-5) indicates that this vegetation is ***not*** in low condition according to the definition of low condition contained in the EOAM. Clearing of this vegetation type would therefore not be approved under the EOAM. Even if clearing could be approved, the proposed offset area would fail to meet the required improve or maintain environmental outcomes for biodiversity due to substantially inadequate size.

Therefore the mitigation package proposed i.e. the 32.3 ha offset area and rehabilitation of 9 ha of riparian area, is not adequate to result in an improved or maintained environmental outcome. As such, the proposed mitigation of impacts is not adequate.

Conclusions
I conclude the following in respect of the likely impacts of the proposed development on native vegetation, and the extent to which the EA addresses these:

1. The Environmental Assessment does not adequately identify the conservation values of native vegetation present in the development area of the two proposed power stations.

2. The Environmental Assessment does not adequately detail the impacts of the proposed development on native vegetation, and therefore does not allow the extent of environmental impacts of the proposal to be determined.

3. The EA does not in any way address the impacts of the gas pipeline between the proposed power stations and the existing Moomba – Sydney gas pipeline, despite this being an essential and integral part of the power station development. It also has the potential to substantially increase the impacts of the entire development on native vegetation and associated biodiversity.

4. The offset package proposed is inadequate to achieve an 'improve or maintain environmental outcome' for the development as proposed.

5. The clearing proposed for the development could not be given approval under the NV Act, because of the intention to clear Tableland Hills Grassy Woodland, an overcleared vegetation type.

Recommendations
If the Minister for Planning is considering giving approval to this proposal, I recommend the following:

1. The proponent undertakes an Environmental Assessment of the proposed gas pipeline corridor before the gas turbine proposal is determined. This is considered essential to allow impacts of the project to be identified and considered in their entirety.

2. The proponent is encouraged to acquire and utilise more of the existing areas of cleared land surrounding the development site, to avoid the need to clear extensive areas of high conservation native vegetation.

In addition, I recommend that the following practises are adopted as conditions of consent for the proposed development:

i. To minimise the impacts of the proposal on native vegetation, all works and structures should be located and designed to prevent or minimise clearing. As an example, this would include locating all works and structures within areas of cleared grassland rather than within a significant remnant of vegetation.

ii. All clearing of native vegetation should be offset. This is intended to provide both a disincentive to unnecessary clearing of native vegetation, and effective mitigation of the impacts of any clearing.

iii. Offsets for the clearing of native vegetation should be determined using either of the two mechanisms established by the NSW Government for this purpose, i.e. the Environmental Outcomes Assessment Methodology of the *Native Vegetation Act 2003*, or the BioBanking Assessment Methodology.

iv. Offsets should be identified, assessed and secured by a legally binding contract in perpetuity that is registered on land title prior to any clearing occurring within each development envelope.

v. Any clearing that can not be offset, due to failing to meet the offset requirements of the EOAM, can not occur. Specifically, Tableland Hills Grassy Woodland cannot be offset due to its overcleared status.

vi. Assessment of offset areas should be done by persons accredited in the use of the methodology.

These measures will ensure that the Proponent's stated objectives of avoiding impacts on biodiversity and areas of high conservation value (p ES-8) are achieved.

My staff are available to discuss offset requirements with the proponent and the Department of Planning, and to assist in developing conditions of consent relating to the management of native vegetation. I have asked Robert Adam, Catchment Coordinator at our Goulburn office to assist you should you require further information on any of the above. Mr Adam may be contacted by telephone on 4828 6775.

Yours sincerely

Bernie Bugden
General Manager

SYDNEY CATCHMENT AUTHORITY

PO Box 323 Penrith NSW 2751
Level 2, 311 High Street
Penrith NSW 2750
Tel 1300 722 468 Fax 02 4732 3666
info@sca.nsw.gov.au
www.sca.nsw.gov.au

Ref: D2008/05987

Dinuka McKenzie
Senior Planner – Energy and Water
Major Infrastructure Assessments
Department of Planning
GPO Box 39
Sydney NSW 2001

Marulan Gas Fired Power Stations – Exhibition of Environmental Assessments (MP 07_0174, MP 07_0175 and MP 07_0176)

Dear Ms. Mckenzie

Thank you for providing the Sydney Catchment Authority (SCA) the opportunity to review the EAs for the above applications.

The SCA has completed its review of the EA documents and is satisfied that issues of concern to the SCA identified in a letter to the Department in January 2008 with regards to Director General's requirements for environmental assessment and in emails dated 12th, 18th and 26th June 2008 with regards to adequacy review of draft EAs have been addressed.

The SCA notes and supports the following proposed in the EAs with regards to addressing water quality impacts:

- The maintenance of a 150 m buffer from the Wollondilly River for the project site facilities including sewage treatment and water treatment facilities;
- No clearing or degradation of watercourses, existing dams or riparian corridors as a result of the project;
- Water management strategies to ensure zero discharge of wastewater or polluted water from the site to Wollondilly River;
- Erosion, sediment and water management controls during the construction stage of the Common Shared Works to be detailed in the construction stage Environmental Management Plan (EMP); and
- Biodiversity offsets including a woodland offset area involving permanent conservation of a 32.3 ha portion of land that contains Tableland Hills Grassy Woodland and a riparian rehabilitation area of 9 ha located along a degraded drainage line draining directly to the Wollondilly River in the northern part of the site.

The SCA is satisfied that the EAs have adequately addressed the requirements of the Drinking Water Catchments Regional Environmental Plan No. 1 with regards to the Neutral or Beneficial Effect Test on water quality during the construction and operation stages of the gas turbine facilities. The SCA considers that if the proposed environmental safeguards and mitigation measures outlined in the EAs are adequately designed, implemented and maintained, the Delta Electricity and Energy Australia gas turbine facilities will have a neutral effect on water quality both during the construction and operation stages.

The SCA notes that the environmental impacts of the proposed gas pipeline are not assessed in the EAs. The SCA understands that these will be subject to a future, separate project application with appropriate environmental assessment of key impacts. The SCA is unable to comment on this part of the proposal at this stage.

The SCA requests the following information to be provided with regards to the environmental assessment:

- Copies of submissions received from other agencies and organisations.
- Copies of the construction and operation EMPs for review and comments.

If you wish to discuss any matter raised in this letter please do not hesitate to contact Ravi Sundaram on 02 47252594.

Yours sincerely

10/10/08

GREG GREENE
A/Manager Statutory Planning

Dinuka McKenzie - Marulan Gas Fired Power Stations

From: "Robert Mowle" <robert@laterals.com.au>
To: <dinuka.govinnage@planning.nsw.gov.au>
Date: 17/10/2008 12:19
Subject: Marulan Gas Fired Power Stations

Hi Dinuka

Applications were considered by Council at its meeting held on 16 October 2008.

Council resolved to support the proposed developments and request the following conditions be imposed on any consent issued by the Department:

- Canyonleigh Road

  The section of Canyonleigh Road located within the Upper Lachlan Council area being reconstructed to Auspec standards providing a bitumen sealed pavement 7.0m wide.

- Financial Contribution to Upper Lachlan Shire Council for Community Enhancement:

  Prior to the commencement of construction, the applicants shall enter into a legally binding agreement with Upper Lachlan Shire Council for a financial contribution to Council being 1.5% of the total capital cost of the development for the purpose of community enhancement to mitigate social, amenity and associated community infrastructure requirements emanating from the operation of the development.

  Will follow with a formal letter next week.

  Thanks

  Robert

Upper Lachlan Shire Council

All correspondence addressed to the General Manager, PO Box 10, Crookwell NSW 2583

Crookwell Office: 44 Spring Street, Crookwell NSW 2583
p: 02 4830 1000 | f: 02 4832 2066 | e: council@crookwell.nsw.gov.au | www.upperlachlan.local-e.nsw.gov.au

Gunning Office: 123 Yass Street, Gunning NSW 2581
p: 02 4845 4100 | f: 02 4845 1426 | e: council@upperlachlan.nsw.gov.au

Taralga Office: Taralga Community Service Centre, Orchard Street, Taralga NSW 2580
p: 02 4840 2099 | f: 4840 2296 | e: taralgacsc@ceinternet.com.au

ABN 81 011 241 552

Please quote when responding: 15.1.37

21 October 2008

M/s Dinuka McKenzie
Senior Planner – Energy and Water
Major Infrastructure Assessments
NSW Department of Planning
GPO Box 39
SYDNEY NSW 2001

Dear M/s ~~McKenzie~~ Dinuka

Re: Marulan Gas Fired Power Stations
Applications MP 07_0174, MP 07_ 0175, MP 07_0176

I refer to my email dated 17 October 2008 and confirm that the development applications were considered by Council at its meeting held on 16 October 2008.

Council resolved to support the proposed developments and request the following conditions be imposed on any consent issued by the Department:

- Canyonleigh Road

  The section of Canyonleigh Road located within the Upper Lachlan Council area being reconstructed to Auspec standards providing a bitumen sealed pavement 7.0m wide.

- Financial Contribution to Upper Lachlan Shire Council for Community Enhancement:

  Prior to the commencement of construction, the applicants shall enter into a legally binding agreement with Upper Lachlan Shire Council for a financial contribution to Council being 1.5% of the total capital cost of the development for the purpose of community enhancement to mitigate social, amenity and associated community infrastructure requirements emanating from the operation of the development.

Please contact me on 48301000 if you require any additional information or clarification.

Yours faithfully

Robert Mowle
Director of Environment and Planning
Upper Lachlan Shire Council

Contact: Development Control
Your Ref: S08/00661

22 October 2008

Dinuka McKenzie
NSW Department of Planning
GPO Box 39
Sydney NSW 2001

Dear Ms McKenzie

Subject: Major Project Applications MP07_0174, MP07_175 & MP07_0176
Location: Canyonleigh Road, Marulan
Proposed: Gas Fired Power Stations

I refer to the above Development Application.

Council considered the proposal at its Meeting on 21 October 2008 and determined that an objection be lodged on the basis that the environmental and amenity impacts of the haulage route have not been adequately addressed.

Council's primary concerns are as follows:

Lack of a suitable water supply

It is acknowledged that there is a moratorium on water extraction licenses along the Wollondilly River. However, the rationale of trucking potable water from the Marulan Water Supply network to Canyonleigh Road seems highly questionable, given that it will ultimately come from the same river, and with a much higher cost to the community by way of road damage, traffic related noise, and general impacts on amenity.

Conversely, if the proponents import treated effluent from either the Moss Vale or Marulan Sewage Treatment Plants, the trucks would need to pass through the village of Marulan, before travelling along the Brayton and Canyonleigh Roads for some 12kms before reaching the site.

Traffic Impacts

The submitted documentation indicates that the proposal will result in a traffic increase of 9 percent. However, this figure may understate the true impacts of the proposal, given that:

- No consideration appears to have been given to the cumulative impact of the development when operating concurrently with the proposed Gunlake Quarry, which is also under assessment by the Minister.
- A considerable proportion of the additional traffic will be generated by large vehicles.
- The submitted documentation does not stipulate the times of day (or night) when traffic movements will occur.

Impacts on the Marulan Village

While a detailed assessment has been undertaken for the impacts along Brayton and Canyonleigh Roads, little or no consideration appears to have been given to the impacts on the Marulan Village. As vehicles must pass through the village in order to reach the site, it forms a key part of the haulage route, and as such, must be given equal consideration.

The “Ardmore Park” decision provides an important precedent in this regard. In this case, the court established that an assessment of a defined haulage route should not only demonstrate compliance with published standards (eg. for noise and vibration) but also consider the potential impacts on all the aspects that contribute to the overall “pleasantness” of the locality. The submitted documentation does not adequately address these requirements.

A full copy of the Council Report is enclosed for your information.

Yours faithfully

Chris Berry
Director Planning & Community Services

Encl.

Item 7 Proposed Gas Turbines, Canyonleigh Road, Marulan (Enclosure)

Reporting Officer

Trainee Town Planner – Lauren Evans

Purpose of Report

To advise of the public exhibition of two proposed gas fired power station facilities on Canyonleigh Road, Marulan.

Report

The Department of Planning is seeking Council's comments in relation to a joint Major Project proposal by Delta Electricity and Energy Australia. The proposal involves the construction of two separate gas turbine facilities adjacent to the existing TransGrid Substation on Canyonleigh Road, Marulan. The development site currently straddles the Local Government boundary, with the proposed turbine sites in the Upper Lachlan LGA, and the common infrastructure falling within Goulburn Mulwaree. A Locality Plan is included in the Enclosure.

The proposal is classified as a Major Project with the Minister for Planning being the Consent Authority not Council.

While Council provides input into the assessment process, the decision to approve or refuse the proposal lies with the Minister not Council. The responsibility for a full assessment of the project and review of all community submissions also lies with the Department.

Proposal

The proposal involves:

- A Concept Application, incorporating both turbine facilities, as well as shared infrastructure, including transmission lines to the TransGrid Substation, access roads, and a pipeline connecting the facilities to the Moomba to Sydney Gas Main located approximately 5km south of the development site.

- A Project Application for the transmission lines, access roads and earthworks. The gas pipeline will be the subject of a future Project Application when the precise route has been determined. At this stage, the proponents have only identified a 'Gas Pipeline Corridor'.

- A Project Application for an Open Cycle Peaking Plant for Energy Australia.

- A Project Application for an Open Cycle Peaking Plant for Delta Electricity. Delta is also seeking conceptual approval for a second stage, involving the establishment of a Combined Cycle Base Load Plant. This will also be the subject of a future Project Application.

Three separate Environmental Assessments have been prepared for the proposal, which include specialised investigation of the following matters:

- Air Quality
- Noise and Vibration
- Traffic Impacts
- Flora and Fauna Impacts
- Visual Amenity
- Soil and Water Management
- Bushfire and Hazard Analysis

The Executive Summary of the Environmental Assessment for the Joint Concept Application is included in the Enclosure.

The public exhibition period for the proposal concludes on 13 October 2008. At the time of compiling this report, it is not known if any submissions have been made by the local community. Details of any such submissions have been requested from the Department.

The key issues for this project from a local perspective are outlined and addressed below.

- **Water Supply**

  While the development site is located adjacent to the Wollondilly River, this has apparently been ruled out as a potential water source due to a moratorium on extraction licences. Similarly, the option of a bore has been eliminated, as preliminary investigations indicate that groundwater is likely to be of unreliable yield and quality. Instead, the proponents intend to utilise a combination of sources, including on-site collection of stormwater, as well as the carting of water/treated effluent from the Marulan water supply network, the Marulan Sewage Treatment Plant or the Moss Vale Sewage Treatment Plant.

  No detail has been provided regarding any discussions or negotiations with respect to the extraction of water from the Wollondilly River. However, the rationale of trucking potable water from the Marulan Water Supply network to Canyonleigh Road seems highly questionable, given that it will ultimately come from the same river, and with a much higher cost to the community by way of road damage, traffic related noise, and general impacts on amenity.

Conversely, if the proponents import treated effluent from either the Moss Vale or Marulan Sewage Treatment Plants, the trucks would need to pass through the village of Marulan, before travelling along the Brayton and Canyonleigh Roads for some 12kms before reaching the site.

- **Traffic Impacts**

Traffic Assessments have been carried out with respect to the potential impacts on Brayton and Canyonleigh Roads both during and after construction. Under the worst case scenario, with both facilities being erected at the same time (over a 12 to 18 month period), there would be traffic increase of 64% during the construction phase.

It is estimated that the Peaking Plants will be operational for 40 days per year, with approximately 24 vehicle trips (using 30,000L tankers) each day of operation to supply the facilities with water. There would also be approximately 16 trips for staff members each day.

The Base Load Plant proposed by Delta Energy in Stage 2 would be operational for approximately 330 days per year, requiring an additional 13 water tanker trips. This stage would also increase the total number of staff trips to 48 vehicle movements per day.

It is estimated that, once operational, this would constitute an overall increase of 9 percent. However, this figure may understate the true impacts of the proposal, given that:

- No consideration appears to have been given to the cumulative impact of the development when operating concurrently with the proposed Gunlake Quarry, which is also under assessment by the Minister.
- A considerable proportion of the additional traffic will be generated by large vehicles.
- The submitted documentation does not stipulate the times of day (or night) when traffic movements will occur.

- **Impacts on Marulan Village**

While a detailed assessment has been undertaken for the impacts along Brayton and Canyonleigh Roads, little or no consideration appears to have been given to the impacts on the Marulan Village. As vehicles must pass through the village in order to reach the site, it forms a key part of the haulage route, and as such, must be given equal consideration.

The “Ardmore Park” decision provides an important precedent in this regard. In this case, the court established that an assessment of a defined haulage route should not only demonstrate compliance with published standards (eg. for noise and vibration) but also consider the potential impacts on all the aspects that

contribute to the overall "pleasantness" of the locality. The submitted documentation does not adequately address these requirements.

- **Noise Impacts**

  Acoustic modelling suggests that the development may produce noise exceeding established thresholds at three separate nearby residences. One of the residences may experience marginal noise exceedance under adverse weather conditions, which may be mitigated by architectural treatments to the existing dwelling. The remaining two residences may experience a significant exceedance of greater than 5dB under adverse weather conditions. The applicants propose to address by negotiating agreements or in the most extreme case acquisition.

  Vibration impacts for the development appear to be minimal.

- **Visual Amenity**

  The EIS concludes that the development will have an overall medium visual impact on the locality with two residences in particular experiencing a high visibility rating. This is due primarily to the proposed exhaust stacks, which stand approximately 30-40m high. A range of mitigation methods are proposed to address this, including screen planting, material selection and lighting design.

Conclusion

While the onsite issues of noise and amenity impacts are of some concern, it is considered that these matters may be mitigated through a range of design measures and operational control. However, the lack of a suitable water supply and the associated impacts on the Marulan village by way of noise, traffic and general amenity, have not been sufficiently addressed.

It is recommended that the application not be supported in its current format. A further assessment should be undertaken with the respect to the potential impact on the Marulan village during both construction and operation of the facilities.

Budget Implications

Nil

Policy Considerations

- Mulwaree LEP
- Mulwaree s94 Development Contribution Plan
- Draft Goulburn Mulwaree LEP
- Draft Goulburn Mulwaree DCP
- Draft s94A Contribution Plan

Recommendation

That an objection be lodged to the proposed Gas Turbine Facilities at Canyonleigh Road, Marulan on the basis that the environmental and amenity impacts of the haulage route have not been adequately addressed.

Our Ref: 185DA109 (08/1637)
Contact: Nicole Stevenson (4221 2523)
Your Ref: MP07_0175

URS Australia Pty Ltd
Level 3, 116 Miller Street
North Sydney NSW 2060

17 DEC 2008

Attention: Nicole Brewer

GOULBURN MULWAREE COUNCIL – DA MP07_0175 – HW2, CANYONLEIGH ROAD, MARULAN GAS TURBINE FACILITIES - CONSTRUCTION AND OPERATION OF A GAS-FIRED POWER STATION AND ASSOCIATED INFRASTRUCTURE, MARULAN

Dear Madam

I refer to your letter dated 27 November regarding the subject development application forwarded to the RTA for consideration.

The RTA has reviewed the submitted information and notes that the Environmental Assessment indicates additional traffic analysis is being undertaken for the subject proposal. Whilst the RTA has no information on the type of additional assessment currently being completed, the RTA's major concern with the subject proposal relates to the impact associated with the proposed heavy vehicle route as well as the additional light vehicle traffic generated during the construction stage of the project.

The RTA therefore requests that the additional traffic analysis identify the proposed heavy vehicle route and consider the suitability of this route to accommodate the turning movements of heavy/oversized vehicles. This will require swept path analysis for key junctions along the identified route as well as details regarding proposed upgrades/changes to existing infrastructure required to ameliorate the potential impact of construction traffic. In determining the proposed heavy vehicle route, the applicant should give consideration to the location of town centres and where possible avoid these areas.

The RTA will recommence its assessment of the subject application once the aforementioned matters are addressed and incorporated into the revised traffic assessment.

Should you require any clarification on the above please contact Nicole Stevenson on 42212523.

Yours faithfully

Trish McClure
Manager, Road Safety and Traffic Management
Southern Operations and Engineering Services

CC- Goulburn Mulwaree Council