

19 July 2012

DETERMINATION OF THE PROPOSED DALTON POWER PROJECT (MP10_0035)

EXECUTIVE SUMMARY

The application to construct and operate a 1500 megawatt (MW) open-cycle gas fired power station near Dalton was referred to the Planning Assessment Commission for determination as it meets Ministerial delegation.

Following careful consideration of the views expressed at the public meeting and the Department's Assessment Report and agency and public submissions, the Commission agrees with the Department's recommendation that the proposal should be approved subject to the recommended conditions as amended by the Commission.

The key amendments include limiting the project's generating capacity to 1000MW and if exceedance of environmental criteria occurs, operation will cease or be limited to a level where it will comply with the approval conditions. Full operation will recommence only when issues are resolved in a manner which can ensure compliance.

The report below provides further detail on the Commission's decision making process, and outlines the reasons for the amendments made to the recommended conditions.

1 PROJECT APPLICATION

AGL Energy Limited (the proponent) proposed to construct and operate a 1500 megawatt open-cycle gas fired power station about 4km north-east of Dalton. The proposed power station is intended to operate as a peaking facility to supply electricity at short notice during periods of peak demand, estimated to be between 2% and 15% of any year. When operational, it may operate 24 hours a day, seven days a week.

The project is to be developed in two stages. Stage 1 comprises 2 to 3 F Class turbines with a nominal maximum capacity of up to 750 megawatts. Stage 2 would increase the generating capacity to 1500 megawatts with a total of 6 turbines. The project also includes the construction of a 3km gas pipeline, a valve station, a communications tower and hut and access road.

2. DELEGATION TO THE COMMISSION

The application was referred to the Commission for determination under Ministerial delegation dated 14 September 2011 as the proponent has made a reportable political donation.

Mr Garry West (chair) and Mr Brian Gilligan were nominated to constitute the Commission to consider and determine the application. They visited the site on 27 June 2012.

3. DEPARTMENT'S ASSESSMENT REPORT

The Director-General's Environmental Assessment Report ('the Assessment Report') considered the proposal, its statutory context, public and agencies submissions, and the proponent's responses to submissions. The report identified the following key issues:

- Noise (both construction and operation);
- Air quality;
- Water demand and supply;
- Traffic and transport;

- Visual amenity; and
- Biodiversity.

The assessment report concludes that the potential impacts could be mitigated to an acceptable level of environmental performance. Some residual impacts may result, but, on balance, the project is assessed to be justified when considering the public benefit of having a reliable source of electricity to the State's energy supply system in times of peak demand. The application is recommended for approval with conditions.

4. MEETING WITH STAKEHOLDERS

4.1 Department of Planning and Infrastructure

The Department briefed the Commission on 20 June 2012. The meeting focused on the issue of noise, particularly tonality and low frequency noise; the operational differences between E and F class turbines and resultant noise impact; and the experience from the Uranquinty power station in relation to noise.

Following the meeting, the Department provided additional information to the Commission in relation to:

- The Uranquinty noise experience and run-time record for the past 2 years; and
- A paper titled *A Simple Criterion for Low Frequency Noise Emission Assessment* by N Broner, which recommended the low frequency noise criteria of 60dBC (night) and 65dBC (day), which have been adopted by the Department as recommended conditions of approval; and
- A correction to the street references in recommended conditions E38 and E46(c)(vi).

The Commission met with the Department again on 17 July 2012 to discuss specific amendments to the recommended conditions of consent.

4.2 Upper Lachlan Shire Council

The Commission met with Upper Lachlan Shire Council on 27 June 2012. Council outlined its response to the Department's recommendation as follows:

- Traffic and transport
 - Council has focused its attention on addressing the local traffic impacts especially during the construction phase of the project;
 - Most of RMS concerns have been considered in the traffic management plan;
 - The issue of over-size vehicles is manageable as they are well controlled and regulated; and
 - Certain local roads and intersection need improvements or widening for everyday traffic and safety.
- The VPA with the proponent is satisfactory and the recommended condition should reflect the signed agreement.
- AGL recently advised that Stage 1 would be for 500 MW, not 750MW. Council's concern is whether Stage 2 would be another 500MW or 1000MW (the balance of the 1500MW).
- Timing of Stage 2 is a concern, particularly in relation to advances in technology and turbine performance. Stage 1 was cited as an example as it has changed from 4 turbines to 2 during the course of the planning approval process.
- Issue of Water
 - Council prefers a pipeline to supply the site, rather than relying on bore water; and
 - The concern is if bore water quantity diminishes, the proponent can truck in water.
- Some of the conditions are open to interpretation.

On 28 June 2012 Council provided comments on the recommended conditions including the need to provide compensatory water supply to any affected landowners and/or operator of a public utility. "The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributed to the project ... by way of the installation of a pipeline and associated infrastructure from Gunning."

4.3 Proponents – AGL Energy Limited

The Commission met with the Proponent on 27 June 2012. The meeting discussed:

- The justification for the project;
- Operation time is expected to be between 2-15% per annum and mostly during the day and evening;
- Stage 1 is for 500MW. Stage 2 could be another 500MW. To develop to full capacity requires an upgrade to the transmission lines, which are not included in the current or the next Transgrid work program;
- The proponent has committed to switch off the plant if it does not comply with the environmental performance criteria;
- The Environmental Assessment was based on a worst case scenario;
- The turbines can run without water. But would produce less electricity. It should be noted that the recommended conditions do not allow water to be brought in to run the turbines.
- The proponent is finalising its purchase of a water access licence. It intends to surrender any excess volume that is not required for the running of the station.
- Council and the Traffic Committee have been involved in the preparation of traffic management plan. A commitment has been made that there will be no construction transport during peak school hours;
- In terms of visual impact, the station's visibility is reduced by the proposed reduction in stack height from 46 metres to 28 metres above ground level. The recommended conditions requiring landscaping working within 5km are considered unreasonable, but the proponent raised no objection;
- 195 hectares of land will be dedicated for conservation in perpetuity. They will be managed in accordance with the Offset Management Plan which is being reviewed by the OEH.
- An air monitoring station is to be located in Dalton Primary School. The station is not a requirement of the OEH/EPA, but agreed to by the proponent to address community concern;
- Reduced stack height will not change the outcome of the noise assessment as the model was based on stack height of 28m; and
- F class turbines are proven machines and 9FA turbines have been in operation in Australia since 1990s. They are not new technology.
- The proposal has been changed to address community concerns. The amendments include:
 - sealing Walshs and Loop Roads;
 - establishing an ambient air quality monitoring station;
 - designing transport routes to minimise impact;
 - making a commitment not to truck-in process water;
 - reducing stack height to 28m;
 - making a contribution to a community fund;
 - providing additional landscaping to minimise visual impact;
 - realigning the gas pipeline to minimise impact; and
 - using the F class turbines to reduce water usage.

4.4 Environment Protection Authority (EPA)

The Commission met with the EPA on 27 June 2012. The EPA considered air emissions would not be an issue. Biodiversity issues have been adequately dealt with. Water usage for this type of turbine is very low. Licence conditions would include a requirement for no discharge. The evaporation pond would be small and is not considered to be a cause for concern.

Noise is the main issue. Residences B, C and D are the closest neighbours. Based on assessment results, they are marginal to meet the noise criteria. Although modelling was based on a worst case scenario, the EPA is not confident that the proposal will meet the noise criteria for residences B and C.

The EPA advised that the noise issue in Uranquinty is different from Dalton. The proponent is confident that it will be able to contractually ensure the turbine manufacturer meets the noise criteria. The EPA also advised that the commissioning period (3 months) is critical as it would be apparent during that period whether the noise criteria could be met. Therefore intensive monitoring during the commissioning period is required.

The EPA also noted that its recommended 65/70dBC criteria for low frequency noise were not adopted by the Department. Instead, more stringent criteria (65dBC for day and 60dBC for night) are included in the recommended conditions.

4.5 Public Meeting

The public meeting was held on 28 June 2012 at the Gunning Shire Hall where 31 people spoke to the Commission. (Appendix 1) The following is a brief summary of the issues raised at the meeting.

- Project justification and capacity
 - There is no strategic justification for the project;
 - Market demand forecasts have been significantly lower than the previous prediction and by 2020 there will be an oversupply of energy;
 - If the project were to be approved, only Stage 1 should be approved. A new environmental assessment for Stage 2 should be required to demonstrate Stage 1 complies with the environmental conditions; and
 - Recommended conditions leave open the potential to extend operation beyond peak periods;
- Noise impact
 - No confidence the Dalton project would be able to comply with the approval conditions given the Uranquinty experience;
 - The assessment underestimated adverse weather conditions;
 - Lack of on-site meteorology data; and
 - Questions on the accuracy of modelling data.
- Impact on air quality
 - Inadequate assessment of issues of air emissions, dust and odour;
 - No on-site meteorology monitoring station; and
 - Potential impact on health.
 - Potential flow on impacts on rainwater tank water quality.
- Impact on water resources
 - Potential to deplete groundwater resources;
 - No safe guard or compensatory measures to protect adjacent landowners' water supply;
 - Impossible to prove that any depletion was caused by the proponent's extraction;
 - Impact on spring fed creeks; and
 - Impact on the interrelated ecosystems.
- Traffic impact
 - Issues concerning construction traffic, traffic route, road conditions, conflict with school traffic.
- Impact on property value and compensation
 - The proposal would significantly devalue surrounding properties as well as those along the traffic route; and
 - Landowners should be compensated for loss of land for landscape treatment to mitigate visual impact.
- Social and economic impacts
 - Cumulative negative impacts on the community's health and well being;
 - Forced acquisition would negatively impact on the community structure and provision of services;
 - Lack of social and economic impacts assessment and no social or economic benefits to the Dalton community. Any community enhancement fund should be spent in Dalton'; and
 - The impact on the tourist industry has not been assessed. Businesses have not been consulted.
- Other issues
 - Visual amenity effect in a rural setting;
 - Inadequate public consultation, particularly with the closest neighbours and Aboriginal community;
 - No assessment on vibration effects;
 - General concern at the erosion of local biodiversity values;
 - Potential hazards including gas leaks, fire or explosion;
 - Lack of response to community concerns caused the community's distrust;
 - Lack of seismology assessment as the proposal would be built on a fault line; and
 - The proponent's commitment to shut down the facility if exceedance occurs should be included in the conditions of approval.

4.6 NSW Office of Water (NOW)

The Commission discussed the water extraction issue with the NSW Office of Water on 4 July 2012 via tele-conference. The discussion focused on:

- The Hydroilex report, the adequacy of 24 hour bore test to confirm potential impact on surrounding bores;
- The issue of connectivity of bores in the area and impact on springs in fractured rock environments;
- The need for contingency conditions in the Department of Planning and Infrastructure's recommended conditions of consent; and
- Whether residual uncertainty can be adequately addressed in the groundwater and water management plans and licence requirements, if the project proceeds.

The Commission's attention was directed to the NOW's response to the Department in relation to groundwater extraction dated 2 March 2012. NOW has reviewed the *Hydrogeological Assessment Incorporating 24Hr Pumping Test (Bore 1 and Bore 2)* dated 22 February 2012 and concluded that:

- The required water supply of 25ML/y can be sourced via groundwater extraction from on site bores provided water quality and quantity remain consistent with results of the Hydroilex 24 hour pumping test;
- The pumping test included water measurements collected from water users within a 4km radius of the site and had not identified impacts to water levels on these bores. Therefore it is not anticipated that other bore owners will be impacted by the proposed pumping at the site; and
- Based on the hydrogeological characteristics at the site and the volume of proposed water to be extracted, NOW does not anticipate significant impacts to the Lachlan River.

5 COMMISSION'S COMMENTS

The Commission has carefully reviewed the Department's assessment report and associated documents, including submissions from the Upper Lachlan Shire Council, agencies and the public. It has also considered the comments made by stakeholders at the Commission meetings including the public meeting. The Commission is satisfied that the assessment report has adequately canvassed most of the issues raised in public submissions, and where required, recommends conditions of consent to address/mitigate residual impacts. However, the Commission determined to amend some of the recommended conditions to improve the management of the project and its environmental performance.

5.1 Project justification and operating capacity

Most submitters believed there is insufficient strategic justification for the proposal. Particularly when considering the 2012 National Energy Market Report which stated that the "annual energy and maximum demand forecasts are significantly lower" than earlier predictions "signalling an expected delay for new generation and network investment". They pointed out that it is likely there will be a surplus of energy by 2020 instead of the earlier projected shortage, thus there is no need for the proposal.

If the project were to be approved, submitters are of the view that only Stage 1 should be approved. Stage 2 should be the subject of a new development application with relevant environmental assessment based on the performance of Stage 1.

At the meeting with the Commission, the proponent confirmed that Stage 1 will consist of two turbines with a total capacity of 500MW. Stage 2 is likely to be of similar size. The main reason for the reduced capacity (from 750MW to 500MW) is because it requires the upgrade of the transmission lines by Transgrid. There is no certainty when the transmission lines will be upgraded, if at all as they are not included in the current or next Transgrid work programs. There is also no confirmation when Stage 2 will be constructed.

The Department's Assessment Report in considering the justification for the project acknowledged the shift in actual and projected energy demands over recent years, but is of the view that it is "prudent to take a broad, strategic approach to the timing of additional generating capacity that may be required at any time in the period 2012-2020" to accommodate any potential demand arising from the establishment of major energy-intensive developments.

The Commission agrees with the Department that it is of critical importance to ensure the State's electricity supply system is reliable to support peak energy demand and additional capacity should be available for implementation, if required. In this regard, the Commission also notes that while there is evidence that overall energy demand is reducing with reference to earlier projections, perhaps most significantly as a result of anticipated reductions in demand from large industries within the manufacturing sector, the forecasts for peak demand, which is most relevant to this proposal, are indicating continuing increases in levels of demand from the domestic sector in peak periods.

Notwithstanding the Commission's support of the development of a peaking station to ensure security of energy supply to the State, the Commission considers it is reasonable to limit the maximum generating capacity of the development to 1000MW having regard to the proponent's latest plan of 500MW for Stage 1 and similar capacity for Stage 2. Any increase in generating capacity beyond this level should be the subject of a new development application with relevant environmental assessment based on the operational experience of the project.

Whilst the maximum nominal generating capacity is limited to 1000MW, Stage 1 is approved up to a nominal capacity of 750MW to provide flexibility to meet unforeseen project design issues.

Concern was raised at the public meeting that condition B15 leaves open the potential for operation to extend beyond the peak periods. The Commission agrees and the condition has been amended to allow exceedance only if directed by the Australian Energy Market Operator under the National Electricity Rules.

5.2 Environmental Requirements and Compliance

a) Noise

Noise is a major issue raised in the public meeting and by the EPA. Community members expressed the view that they do not have confidence that the proposal will meet the noise criteria citing the Uranquinty power station as an example.

The Commission sought advice from the Department in relation to the Uranquinty power station. The Department advised that the main problem with the Uranquinty power station was the manufacturer of the turbines did not meet the specifications. The approval conditions also did not include low frequency noise criteria.

The Commission raised the community concern with the proponent and sought advice on how it will ensure the Uranquinty experience would not be repeated in Dalton. The proponent confirmed that it will include a condition in its contract with the manufacturer that the turbines must meet the noise criteria. It has also made a public commitment that if the operation of the station does not comply with the environmental criteria, the station will be shut down until the issue is rectified. Submitters believe such a commitment should be included in the conditions of approval to safeguard the community's noise amenity. The Commission agrees and has amended the relevant conditions that if environmental criteria are exceeded, operation shall be ceased or limited to ensure compliance. Full operation should not be recommenced until issues are resolved.

The Commission also notes that unlike the Uranquinty experience, the Department has, in this case, included low frequency noise criteria (65dBC for day and 60dBC for night) in the recommended conditions which are more stringent than those recommended by the EPA (70dBC for day and 65dBC for night). Further that, the noise assessment was based on the worst case scenario for a 1500MW station. As discussed in Section 5.1 above, the Commission considers the generating capacity should be reduced to 1000MW. As a result of the reduction in capacity, potential noise impact should be significantly reduced.

The Commission notes that the reduced noise impact should be realised at residences B and C. Notwithstanding this, they should be closely monitored to safeguard their noise amenity, otherwise mitigation measures should be implemented as soon as noise becomes an issue to these residents. Relevant conditions have also been amended to provide an appropriate process for a negotiated outcome when required.

In considering approval of the project, the Commission is mindful of the community's concern but notes that environmental assessment was carried out for the generating capacity of 1500MW and the performance criteria are set for the project as a whole inclusive of both Stages 1 and 2. The Commission is satisfied that the amendment to relevant conditions to require operation to cease or limit to a level where compliance of environmental criteria can be achieved will adequately address the community's concern.

b) Water resources

Speakers at the public meeting raised concern that the extraction of groundwater for the operation of the project may impact on adjacent landowners relying on bore water. There is no safeguard or compensatory measures to protect their water supply. The Commission discussed the issue with the NSW Office of Water, which advised that their review concluded that the proposed extraction is very small and is not expected to impact on adjacent bore owners.

The Commission also notes the issue is dealt with in detail in the Department's Assessment Report. The Commission agrees with the Department's conclusion that the implementation of the proponent's commitment and the Department's recommended conditions of approval should ensure the proposed development would avoid significant impact on water resources. Notwithstanding such assurance, the Commission has amended the recommended conditions (F25(c)) to include requirement of contingency planning and provisions for compensation in the Operational Groundwater Management Plan.

c) Traffic and transportation

This issue is dealt with in detail in the Department's Assessment Report. The Commission notes the concerns expressed in the public meeting. However, it shares Upper Lachlan Shire Council's view that the involvement of the Council and the Traffic Committee in the preparation of the Construction Traffic and Access Management Plan and the Traffic Management Plan will ensure the construction and operation traffic issues should be properly managed to meet environmental requirements.

The Commission agrees with the Department's assessment and conclusion that with the recommended conditions of approval, the issues of construction and operational traffic can be managed to minimise impacts and inconvenience to the community.

d) Compliance

Concern was raised in relation to non compliance of approval conditions, particularly, the exceedances of environmental performance criteria. Views expressed at the public meeting were that the proponent should carry the cost for any non compliance, not the community. The acquisition of properties in Uranquinty was used as an example to illustrate the community cost on non-compliance. As the proponent has made a public commitment that if the operation does not meet environmental criteria, it will be shut down until the issues are resolved, the community members called for the commitment to be included as a condition of approval to ensure compliance of approval conditions.

The Commission agrees and has amended the relevant conditions to reflect the commitment by requiring operation be ceased or limited to ensure compliance.

e) Other issues

Odour emission was an issue raised at the public meeting. The Commission notes that offensive odour emission is governed by the *Protection of the Environment Operations Act 1997* (PEOA). Any non compliance will be a breach of the PEOA and dealt with by the EPA accordingly.

At the meeting with the Commission, Council expressed the view that recommended condition B16 should reflect the signed Voluntary Planning Agreement (VPA) dated 17 May 2012. In response to the Commission's query, the Department advised that the signed VPA cannot be executed as the Minister for Planning has been incorrectly identified as a party to the agreement. The Commission notes the level of agreement reached between the Council and the Proponent and believes this can be formalised in due course as specified in condition B16 .

Other issues raised at the public meeting are similar to those in the public submissions already considered by the Department. The Commission is satisfied that the Department's Assessment Report has adequately considered these issues and that they can be further considered as necessary

by an appropriately constituted Community Consultative Committee. The conditions of approval will ensure any residual issues would be properly managed with impacts mitigated to an acceptable level of environmental performance.

6 COMMISSION'S DETERMINATION

Following careful consideration of the issues raised in written submission and at the public meeting and documents relevant to the application, the Commission has concluded that on balance, the project be approved subject to amendments to the conditions recommended by the Department. These include:

- limiting generating capacity to maximum 1000MW;
- exceedance of operating time limit may occur only if directed by the Australian Energy Market Operator under the National Electricity Rules;
- operation will be ceased or limited if monitoring indicates the environmental criteria are exceeded;
- contingency planning and measures to be included in the Operational Groundwater Management Plan to address the issue of compensatory water supply to affected landowners; and
- a community consultative committee to be established in general accordance with the *guidelines for Establishing and Operating Community consultative Committees for Mining Projects*.



Garry West
PAC Member (chair)



Brian Gilligan
PAC Member

Appendix 1

List of Speakers

List of Speakers

Planning Assessment Commission Meeting Dalton Power Project

Date: Thursday 28 June 2012
Place: Gunning Shire Hall, Copeland Street, Gunning

1. Minister Hodgkinson
2. Mr Alister Waive, Upper Lachlan Environment Association
3. Mr James Colman, Upper Lachlan Environment Association
4. Ms Andrea Strong, Community for Accurate Impact Assessment of Dalton Power Station
5. Mrs Jo Boyce, Gunning District and Community Health Service
6. Mr Douglas Darbyshire, Gunning and District Chamber of Commerce
7. Mr John Edwards
8. Mr Michael Coley
9. Ms Maryanne Johnstone
10. Ms Renee Andrews
11. Mr Allan Fowler
12. Mr Wayne Apps
13. Ms Helen Vooren
14. Mr Tony Walsh
15. Mrs Louise Duncan
16. Mr Chris Morgan
17. Ms Carolynne Southwell
18. Mr Arthur Bollom
19. Mr Michael Ciszewski
20. Ms Karina Smith
21. Mrs Leslie Bush
22. Mrs Maureen Tumald
23. Mrs Margarita Georgiadis
24. Mr Max Cullen
25. Cr Malcolm Barlow
26. Mrs Kath Vivas
27. Mr Hector Vivas
28. Mr Bernard Boyce
29. Ms Ann Darbyshire
30. Mr Tony Medway
31. Mr Vince Heffernan