Photo Location Wayne Apps Residential Dwelling - Existing view north to north east from Dalton South

Photo Location Wayne Apps Residential Dwelling - Proposed view north to north east from Dalton South

Figure: 4-21

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(Wayne Apps, attachment to DP&I letter 8/3/12):

- *Traffic and Transport: This submission expresses numerous concerns, including a number of traffic related safety concerns.*

The submission notes concerns regarding the railway bridge, safety issues relating to commuters and school children and unsafe intersections.

Response

AGL has responded to a number of community concerns around these issues within Sections 3.10 and 4.8 of this report. It is noted in particular that Section 4.8 notes that DP&I made the following comments on additional information required about Traffic and Transport arrangements for the proposal following their review of the draft Submissions Report:

- *the response' states that the safety and amenity of the community will be managed by experienced haulage contractors in liaison with the RTA and police, however does not elaborate on what these management measures may be (DP&I 2/12/11)*

In addressing this point specifically, AGL offered the following response, relevant directly to the additional comments made by Wayne Apps in this current submission:

The Draft TMP outlines a range of management measures for the Project. The plan is currently in draft form and has been provided to Council for comment, and the document has been formally tabled with ULSC.

The plan outlines various management measures to ensure that the safety and amenity of the community will be appropriately managed.

The Draft TMP outlines a range of management measures for the Project. The summary below is from the current Draft TMP being discussed between AGL and Council at present.

Table 4-6 Current Draft TMP Mitigation Measures

Location	Hazard	Control Measures
Grovenor St / WarratawSt	School children crossing roads / Increase in traffic	All efforts will be made to eliminate this hazard by planning bulk deliveries outside of periods when this area will be occupied with children / Signage to be erected as per Appendix B/ Induction and Toolbox Talks for delivery drivers / Undertake regular inspections during periods of increased traffic
Gunning Rail Bridge	Two way traffic on bridge / Pedestrian usage	Traffic lights to be established to prevent two way traffic on bridge at the same time. Lights will be sensored and set to give priority to vehicles leaving Gunning to prevent build up of traffic on Warrataw ST / Inductions and Toolbox talks for delivery drivers / Undertake regular inspections during periods of increased traffic.
Loop Road	Pedestrian usage / Children playing on Loop Road corner.	A detailed design will be provided in a further stage in order to ensure the safe ingress to Loop Rd of vehicles coming from Gunning and Dalton as well as for vehicles leaving from Loop Rd and ingressing Dalton Rd or Gunning St. Appendix D, Detail 1 proposes part of the possible calming measures to slow down vehicles.
Hume Hwy exit to Collector Rd	Increase in traffic on collector Rd and Hume Hwy exit to Collector Rd	Signage to be erected/ Induction and Toolbox Talks for delivery drivers / Undertake regular inspections during periods of increased traffic

4 Preferred Project Report

Location	Hazard	Control Measures
Dalton Road	Regular cycling races.	Induction and Toolbox Talks for delivery drivers and regular coordination prior to the events with ACT Vets Cycling Club to communicate in Toolbox Talks
Walshs Rd junction to site access	Misleading continuing sealed road	Signage to be erected on Walsh Rd prior to Site access in order to clearly identify the continuation of Walshs Rd and the site access.

The plan outlines various management measures to ensure that the safety and amenity of the community will be appropriately managed.

Continuous monitoring throughout the construction phase would be maintained to ensure that construction traffic was compliant with the requirements of the TMP.

In addition on site vehicular safety assessments would be carried out by a suitably qualified HSE representative Traffic management performance on the project would be audited against the requirements of AS/NZS ISO 9001 - 2008, additionally all major contractors and suppliers operating would be audited at an early stage of their works and at critical times throughout the project to ensure compliance.

The TMP will be reviewed to ensure that the mitigation remains effective, with changes being approved by the ULSC Traffic Committee.

(Wayne Apps, attachment to DP&I letter 8/3/12):

- *Noise Assessment: This submission expresses numerous concerns, including a number of noise related concerns.*

This submission notes the varying impacts of weather conditions such as fog on the propagation of noise in a valley. The submission also questions the accuracy of the assessment with respect to F class turbine types.

Response

AGL notes the response addressed in relation to the issue of foggy conditions in Section 3.3.2.The noise assessment recognises that the night-time period is the most sensitive period for potential noise impacts due to the lowest background noise levels generally occurring at this time. As the Dalton power station has potential to operate at any time, the night-time noise limit criteria were adopted for the purpose of assessment.

Temperature and relative humidity parameters were set at 10°C and 75% for the *Adverse Night-time* modelling scenario, essentially as recommended by Kaliski and Duncan. Furthermore F Class atmospheric stability (moderate temperature inversion conditions) was assumed in addition to a 2 m/s windspeed with receptors downwind.

On this basis, adverse conditions, in respect to noise propagation, have been appropriately considered.

In relation to the F Class Turbine, the noise assessment considered the 109F Class turbine type, which is GE 9FA turbines, on the basis that this is the highest sound power of the turbines that were under consideration. Conservative assumptions appropriate for a worst case noise assessment were made from the information available at the start of the environmental assessment of the Project.

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AGL notes that the EA process involved an adequacy review undertaken by independent noise experts from within both OEH/EPA and DP&I.

AGL is committed and obligated, to meet the noise limit condition to be provided by OEH/EPA. Such limits would serve to protect the community from noise impacts associated with the operation of the power station. Contractors will be contractually bound by AGL to meet the approved noise limits and remedial corrective measures would be enforced in the event of any exceedance of the limits.

(Wayne Apps, attachment to DP&I letter 8/3/12):

- *Air Quality Assessment: This submission expresses concerns about the use of baseline data from Monash ACT being used within the assessment.*

Response

As outlined in responses to similar concerns raised and discussed in Section 3.2.2, as background to the assessment included within the EA, the assessment was refined to a level that is required by OEH, in accordance with OEH approved methodology, to demonstrate full compliance with regulatory air quality criteria. Under the assumption of continuous operation, when the highest background (i.e. the highest monitoring result from over 8,600 hourly records collected at Monash in 2006) is added to the highest estimated impact from the project, the estimated cumulative level is below the threshold at which OEH considers the air to be protective of human health and the environment.

As outlined in Section 5 of this report, AGL has committed to the preparation of an AQMP that would detail requirements for air quality monitoring during construction and operational stages of the Project.

(Wayne Apps, attachment to DP&I letter 8/3/12):

- *Water: This submission expresses concerns about the groundwater assessment carried out for sourcing of operational water. The submission states:*

  "I don't agree that this test is long enough to show up any problems and 7 day test would have been a better gauge of any problems that would arise domestic or town water supply bores..".

Response

The full hydrogeological assessment is presented within **Appendix G** of this report. Further to the detail contained therein in relation to testing methods and results obtained, it is noted that the submission received from the NOW stated the following:

> *" The Office of Water has completed a review of the pump test results presented in the Hydroilex report 'Hydrogeological Assessment Incorporating 24Hr Pumping Test (Bore 1 and Bore 2)' dated 22 February 2012 whilst taking into account Stages 1 and 2 (based on The F Class turbine type) required water supply. …*
> *The results of the Hydroilex 24 hour pumping test included water level measurements collected from water users within a 4 km radius of the site. Impacts to water levels were not identified in water user bores within this radius during or immediately after the test, thus it is not anticipated that other bore owners will be impacted by the proposed pumping at the site. Based on the hydrogeological characteristics at the site and the volume of proposed water to be extracted, the Office of Water does not anticipate significant impacts to the Lachlan River."*
> *- Mark Mignanelli, Office of Water 2.03.12*

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The Hydroilex report attached recommends a long term program of water level monitoring in the production bores to provide important baseline water level data and facilitate the long term sustainable management of the groundwater resource. This recommendation has been taken on board by AGL who propose to include this monitoring within their Water management plan for the site, should the project be approved.

(Wayne Apps, attachment to DP&I letter 8/3/12):

- *Flora and Fauna: This submission expresses concerns about the ecology assessment carried for the project. The submission states concerns regarding the following issues:*
  - *Timing of GSM survey*
  - *Reporting NTG species scientific and common names*
  - *Consideration of the Superb Parrot*
  - *The significance of hollows as habitat features*
  - *A list of commonly sighted species not explicitly mentioned in the EA*
  - *Concerns about project impacts to a small off site population of yellow spotted bell frogs and a population of Macquarie Perch downstream of the proposed facility*
  - *Mention of the potential presence of the eared lizard worm.*

Response

With regards to the timing of supplementary GSM survey carried out, AGL notes the EPA's concurrence;

> *"The EPA has reviewed the report and found that an adequate survey was conducted. The prevailing weather conditions during the 2011/12 flying season resulted in a low number of moths seen at reference monitoring sites in the southern tablelands. The EPA is satisfied that the survey was conducted in accordance with the relevant guidelines and no moths were detected at the project site and associated infrastructure. Therefore the EPA concurs that it is unlikely there will be any significant impact on the Golden Sun Moth if the project were to be approved."- EPA 22.02.2012*

With regards to the inclusion of scientific and common name species comprising NTG communities, a full flora species list is offered as Appendix G to the FFA. This assessment is presented as Appendix H to the EA. This list outlines all flora species identified directly within the site during survey effort.

With regards to consideration of the Superb Parrot, cconsideration was made for this species as detailed within Table 4-1 of Chapter 13 of the EA in the discussion of potential impacts & mitigation measures for Matters of National Environmental Significance (NES).

An extract of that table is below.

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Table 4-7 Potential impacts & mitigation measures for Matters of National Environmental Significance

Matters of National Environmental Significance (NES)		EPBC Act Statust*	TSC Act Status*	Potential Impacts	Mitigation Measures
Superb Parrot	*Polytelis swainsonii*	**V**	**V**	• Clearing, degradation & fragmentation of potential habitat; • Potential hydrological changes; • Loss of hollow bearing trees • Feral species impacts (mainly competition for nest sites); • Use of insecticide sprays resulting in poisoning; and • Loss of potential recruitment trees (those trees that will form hollows over time).	• Protect areas of known or potential habitat where possible; • Maintain natural hydrological regimes; • Conserve hollow-bearing trees where possible; • Implement feral animal control targeting species such as the Indian Myna & feral honey bee; and • Revegetation to include species suitable for use by the species such as Box Gum Woodland canopy species.

Further to this assessment, the EA notes that the proposed offset site would involve the permanent conservation of existing native vegetation including Natural Temperate Grassland and Box Gum Woodland and the associated habitat features that provide habitat for such threatened fauna species such as; Pink-tailed Worm-lizard, Striped Legless Lizard and Golden Sun Moth, Gang-gang Cockatoo, Turquoise Parrot, Swift Parrot, Little Lorikeet, Superb Parrot, Speckled Warbler, Hooded Robin, Varied Sittella, Scarlet Robin, Flame Robin, Diamond Firetail and Brown Tree Creeper and threatened flora species such as; Yass Daisy, Silky Swainson-pea, Button Wrinklewort and Hoary Sunray.

In relation to the submission's expressed concern about hollows, AGL notes that hollow bearing tree assessment and offset requirements have been developed as part of the environmental assessment to meet state and federal guidelines. AGL acknowledges that the loss of any hollow bearing trees represents a loss of important habitat features. Mapping of all habitat trees including number, size and location of hollows was part of the Habitat Feature Assessment. Details of this survey type are outlined in Section 4 of the FFA, and whilst the proposal would cause the loss of 33 hollow bearing trees within the development footprint, the FFA points out the abundance of these features to be conserved and protected within the offset area. The offset proposed protect in perpetuity the hollow bearing trees in that area. Prior to the Project being proposed none of the hollow-bearing resources in either the Project footprint area or the offset area were protected in perpetuity. Hence the offset proposal is seen to provide for a long term conservation gain.

In relation to the omission of a number of common fauna species, it should be noted that common fauna species were only listed within the environmental assessment if they were seen opportunistically. No targeted investigations were carried out for common/native species, as is the case for this nature of flora and fauna assessments.

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In relation to the query about project impacts to a small off site population of yellow spotted bell frogs and a population of Macquarie Perch downstream of the proposed facility, AGL notes that relevant threatened amphibians (frogs) and relevant terrestrial and aquatic habitats were surveyed for and noted in the Environmental Assessment. Referring to Section 5 of the FFA specifically, it was noted that:

> *"No wetland areas were recorded on development footprint, however several ephemeral creeklines were observed. These were largely dry, save for one small tributary traversing the south of the Site. Based on habitat requirements the development footprint is highly unlikely to support any threatened aquatic species, or species that require wetland habitat, such as Booroolong Frog (Litoria booroolongensis), Australian Painted Snipe (Rostratula australis), Macquarie Perch (Macquaria australasica) or Murray Cod (Maccullochella peelii peelii). However, all water bodies in the study area provide potential foraging habitat for microbats, given the proximity to intact woodland and hollowbearing trees."*

Regarding mention of the eared lizard worm, this species was not identified by the extensive literature search carried out as part of the FFA. This species is also called the Mallee Worm-lizard (*Aprasia inaurita*), and it's potential occurrence on the site was ruled out on the basis of habitat suitability. The species has been recorded from sandy habitats including mallee, and is considered to be dependent on Spinifex (*Triodia* spp.), which is not found within the Project site.

Furthermore, in NSW the species is known from only nine locations in two disjunct areas: seven locations clustered between Balranald and Wentworth, and two records from near Rankin Springs. Three of these locations are in conservation areas, Mallee Cliffs National Park and Gubbata and Pulletop Nature Reserves. The closest of which, is approximately 200 km west of the study area.

Notwithstanding this, a number of important reptile species were identified as potentially occurring within the site due to a more suitable range and distribution, as well as the consideration of preferred habitat which is present across the site.

OEH and DSEWPaC required AGL to carry out additional/ supplementary survey specifically targeted at the Pink-tailed Worm-lizard (Aprasia parapulchella) and Striped Legless Lizard (Delma impar). This specialist reptile survey is presented in full in **Appendix D-1**. While targeted specifically for the above listed species, it is noted that the methodology employed would be expected to apply across a number of reptile species, and included the following:

- funnel trapping (chosen as the survey technique due to its effectiveness in capturing a wide variety of reptile fauna);
- Active hand searches (involving extensive searches of rock outcropping);
- Walking transects; and
- Opportunistic searches

The survey recorded no individuals of the targeted species, nor the eared lizard worm, but a number of other lizard species were identified through the survey. Whilst fauna surveys cannot be guaranteed to identify present species, fauna survey techniques are develop in consultation with agencies and fauna specialists to ensure effort towards this is as highly effective as possible. AGL considers that it has met the requirements of OEH and DSEWPaC in terms of survey effort for reptile species on site.

4.9.2 Community Submission 2

(Louise Duncan, attachment to DP&I letter 8/3/12):

- *Visual: This submission expresses a high level of concern related to the visual impacts of the proposal. The submission notes that the view from all living areas of the home will encompass the power plant stacks.*

Response

The Duncan residential dwelling was assessed in the Visual Impact Assessment report (recorded as view location R15). The assessment determined that:

- the proposed Power Station would have a low visual impact on the residential property;
- the communication tower would have a low visual impact; and
- the valve station would not be visible from the residential dwelling.

An additional site inspection of the residential dwelling was carried out on Friday 9th March 2012. The site inspection determined and confirmed that mid and upper portions of the proposed Power Station exhaust stacks would be visible from the left had side of the veranda (including bedroom window); however the exhaust stacks are unlikely to be visible from the central area of the veranda (containing an outdoor dining table) and the right hand side of the veranda, due to trees within the residential property screening views toward the proposed Power Station site. The site inspection determined that the communication tower would not be visible from the residential dwelling and confirmed that the valve station will not be visible from the residential dwelling.

A photomontage has been prepared from the left hand portion of the residential dwelling veranda looking toward the proposed Power Station and is presented as **Figure 4-22**. The photomontage has been produced using a maximum design height of 46m for the exhaust stack structures; however, the final constructed height of the exhaust stacks may be significantly lower which will reduce the overall level of visibility and resultant visual impact. The photomontage is therefore conservative in nature.

Photo Location Lousie Duncan Residential Dwelling 053 Felled Timber Road- Existing view north east

Indicative extent of Dalton Power Station
including views toward mid and upper portions
of exhaust stacks (at approximately 4.2km)

Photo Location Lousie Duncan Residential Dwelling 053 Felled Timber Road- Proposed view north east

Figure: 4-22

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(Louise Duncan, attachment to DP&I letter 8/3/12):

- *Air Quality: This submission notes concerns over air emissions from the facility, and a concern in particular about the potential impact on fall out into rainwater.*

Response

As previously detailed in Section 3.3.1, given the clean burning nature of the fuel, the predicted buoyant plume properties, and the low particulate matter levels (onto which volatile compounds could adsorb and subsequently deposit), the potential for concentrated deposition of the hazardous air pollutant emissions is considered to be low. Substances such as benzene and formaldehyde are relatively volatile, and hence are considered unlikely to accumulate in significant concentrations.

A Human Health Risk Assessment (HHRA) was performed by Katestone (2003)[15] for an open-cycle gas fired power station of 660 MW capacity in rural NSW. The HHRA investigated likely health impacts of the emissions through inhalation, deposition on the soil, ingestion of produce and deposition on roofs used for drinking water. The assessment used several conservative assumptions, including:

- The assessment of Chronic risks over a period of 70 years of continuous power station operation;
- The assessment of the maximum concentration on the grid rather than specific sensitive receptors;
- That all contaminants are deposited as particles with an aerodynamic diameter of 20 µm. In contrast, US EPA emission data indicates that particulate emissions from gas turbines typically have aerodynamic diameter of less than 1 µm, with approximately 90% less than 0.1 µm. Hence the model assumption implies that particulate matter will drop out of the air more quickly than in reality, leading to a greater concentration of deposition impacts nearer to the point of emission. HAP emissions are also quite volatile, hence likely to be present primarily in gaseous form, and disperse prior to depositing;
- Home grown garden produce constitutes 100% of the daily intake.

The assessment concluded that risks were low and acceptable when compared against health risk assessment criteria adopted by NSW EPA.

(Louise Duncan, attachment to DP&I letter 8/3/12):

- *Land value depreciation: comment is made about a significant drop in the anticipated value of the home should approval be granted for the Project.*

Response

As detailed within Section 3.3.2, AGL submits that the construction of the power station would not affect an observable downward effect on land values given these two main factors:

- the power station will not impact the ability of the surrounding lands to sustain agricultural production;
- potential amenity impacts (visual and noise) are significantly mitigated due to the substantial buffer distance of the proposal to the nearest residential properties.

[15] Katestone (2003), *Report from Katestone Environmental to ELP - Health Risk Assessment for a Proposed Power Station at Wagga Wagga*, Katestone Environmental P/L, December 2003. Sourced from: http://www.originenergy.com.au/files/Appendix6EIS.pdf, Accessed: 5/10/2011

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The Environmental Assessment has considered the likely project impacts upon amenity (predominantly noise and visual but also in terms of road access changes and traffic impacts) and describes the measures AGL is committed to implementing to limit these amenity impacts in the short term and longer term. AGL has consulted directly with residents to discuss vegetation screening to reduce visual impacts where this measure would be beneficial. Further discussion of the transport management plan is offered in section 4 of this report, with the current draft TMP currently tabled with ULSC and pending finalisation.

Future movements in the value of land are difficult to anticipate and decisive data on this subject are difficult to obtain due to the numerous factors influencing property value trends. Project amenity impacts however can and will be adequately managed by AGL and their contractors, therefore amenity impacts are unlikely to cause land value decreases. Of great significance is that the proposal is located within a much larger AGL owned area of over 508 ha. AGL has purchased a considerable amount of the land adjoining the power station. This will enable AGL to maintain the large buffer area between the power station and surrounding properties.

4.9.3 Community Submission 3

(Andrea Strong,CAIAD, attachment to DP&I letter 8/3/12):

- *Location of surrounding residences: This submission includes a map provided to DP&I locating residences around the proposed development. The submission states that this information was not made available within the EA.*

Response

AGL's previous response to this submission included the provision of an additional figure within the Submissions Report (current **Figure 4-13**) to clarify slight differences between the representation and consideration of residences between the noise and visual assessments carried out for the project.

(Andrea Strong CAIAD attachment to DP&I letter 8/3/12):

- *Consultation: This submission includes states that there has been considerable concern within the community that AGL has failed to consult about the project, and that a number of impacted residents did not know about the process until late in the approvals process.*

Response

AGL has been, and is currently, engaged in an ongoing program of community consultation to ensure that a proactive dialogue is maintained between the wider community in Dalton and AGL. AGL has engaged in community consultation since 2008, through face to face meetings, newsletters, open days, public meetings and facilitating community comments through the establishment of a public webpage.

(Andrea Strong CAIAD attachment to DP&I letter 8/3/12):

- *Noise agreements: This submission includes the following statement:*

  "It is rumoured that AGL is now privately negotiating with its closest farmer neighbours to increase noise emissions on their properties above the NSW Industrial Noise Policy (NSW INP) limits…… we ask that NSW Planning scrutinise negotiations being pursued by AGL to ensure the wider community will not be worse off as a consequence of the private financial agreements".

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Response

In NSW, the framework and process for deriving noise limit conditions for consents and licences for such industrial activities is provided by the New South Wales Industrial Noise Policy (INP). This policy enables the EPA to regulate premises that are scheduled under the Protection of the Environment Operations Act 1997.

The INP provides guidelines for applying penalties to noise sources determined to possess audible characteristics that may lead to increased levels of community annoyance. One such characteristic is low frequency noise. There exists some debate, however, as to the appropriateness of the INP low frequency noise assessment method.

The letter from Chris Wilson DP&I addressed to Mr Julian Thompson of the EPA (dated 2.3.12) (refer to **Appendix B-3**) outlines discussions held between DP&I and EPA Noise Policy Branch regarding the assessment of low frequency noise for the proposed Dalton Power Project.

As outlined in this letter:

"*These discussions concluded that the low frequency noise from gas fired power stations should be regulated on a case-by-case basis until an Application Note to the Industrial Noise Policy (INP) is finalised by the EPA. Further it was considered that the C-A weighting plus 5dB(A) penalty approach as defined in the INP, is not a good measure of annoyance, and could result in the application of measures that would not improve environmental outcomes. In this regard, the Department proposes that noise levels at the nearest residences to the Dalton power station should not exceed:*

- *35 dB(A) during the day, evening or night; or*
- *65 dB(C) during the day or 60 dB(C) during the evening and night.*

Further, should either of these limits be exceeded, then mitigation on request should be offered to all affected residents, which should be agreed with the affected residents and provided within 3 months of request."

In response to this letter, Julian Thompson (EPA, letter dated 7.3.12, **Appendix B-3**) confirms the outcomes of discussions:

"*The EPA is satisfied that the approach proposed by the Department of Planning and Infrastructure will protect the amenity of residences potentially impacted by noise from the proposed project. The EPA will ensure if the project is approved, that the proposed noise limits set out in your letter are incorporated into any Environment Protection Licence issued for the project. It should be noted that depending on the character of noise emissions from the turbines, a 5dB penalty may be added to the measured noise levels at affected residences if the noise is tonal or impulsive in character*."

Given the revised approach agreed upon by DP&I and the EPA, AGL is no longer required to progress noise agreements with residents given that AGL anticipates compliance with the set limits proposed by the regulators at all surrounding residential locations.

4.10 Additional DP&I Comments

Upon review of the Response to Submissions Report issued to DP&I in March 2012, DP&I required that AGL provide some additional clarification around a small number of issues and provide some additional detail. The comments are presented in full in **Appendix B-4** and addressed below.

(DP&I 16/4/12):

- *Low Frequency Noise:*
  - *When referencing the Office of Environment and Heritage's (OEH) comments on the draft Submissions Report (dated 24 November 2011), the response incorrectly refers to the OEH's position, at that time, as proposing dB(C) limits in lieu of the Industrial Noise Policy process of assessing low frequency noise. This is required to be amended to reflect the correct position of OEH, at the time of the submission, which was the inclusion of dB(C) limits in addition to the industrial Noise Policy process of assessing low frequency noise*

Response

Changes have been made to the text in **Section 3.3.1** to reflect OEH's initial position on the use of absolute dBC limits for the Project. Refer to **Section 3.3.1**, pp 26.

(DP&I 16/4/12):

- *Graphical Representation:*
  - *Provide a photomontage representing what is referred to as the likely stack height of 28m, as seen from the village of Dalton (amending the existing photomontage produced for the property of Wayne Apps would be appropriate).*

Response

In response to this request, additional **Figure 4-23** is included. This figure is the photomontage from Wayne Apps' residence with a revised stack height of 28 m, more in line with the likely final height of the stacks.

(DP&I 16/4/12):

- *Water Trucking:*
  - *The Submissions Report still refers to the trucking of 25ML of water (page 72), which is required to be amended to reflect the amended quantity of 200 to 300 KL of water to be trucked per annum.*

Response

AGL has amended the text presented in **Section 3.6.2** (pp 72) accordingly:

> "Chapter 11 of the Environmental Assessment considered the impact of trucking the nominated water supply for the Project, however AGL reiterates their intention to fully supply the operational needs of the Project through groundwater extraction.
>
> AGL notes that a small quantity of potable water (200- 300 KL per annum) would require transport by truck to Site. Potable water supply delivery to Site would require approximately 15 truck deliveries per year."

Photo Location Wayne Apps Residential Dwelling - Existing view north to north east from Dalton South

Indicative extent of Dalton Power Station including views toward upper portions of exhaust stacks at 28m high beyond air filter structures (view distance approximately 4.9km)

Proposed communication tower (view distance approximately 5.2km)

Photo Location Wayne Apps Residential Dwelling - Proposed view north to north east from Dalton South (exhaust stacks at 28m high)

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(DP&I 16/4/12):

- *Box Gum Woodland (BGW):*
  - *The total loss of Box Gum Woodland (BGW) is required to be quantified. The Submissions Report states that the realignment of the southern portion of the gas pipeline will reduce the area of impact on the BGW, as the original southern portion of the gas pipeline alignment impacted on 0.106 ha of BGW. However, in Table 2-1, Appendix H of the EA, the relative clearing impact as a result of the southern portion of the gas pipeline on the BGW is shown to be zero.*

Response

Table 2-1, *Appendix H* of the EA refers to a comparison of a number of gas pipeline options considered at the beginning of the Project. Within this table, all three options assessed for the Gas Pipeline (southern portion) recorded NIL ha of Box Gum Woodland. Vegetation mapping for this community was subsequently updated and refined as field works progressed and the final pipeline route was finalised.

Table 2-1 highlights overall advantages of Gas Pipeline (northern portion) and Access Road – Option 2, and Gas Pipeline (southern portion) Option 3 when compared to other options considered at the beginning of the Project. Advantages are based on broad comparisons of potential vegetation clearing requirements.

Box Gum Woodland areas to be impacted by the Project are presented within **Table 4-8** below. The first row details the corrected area of BGW located within the Gas Pipeline (southern) section included as part of the original proposal. The total area of impacted BGW for the total Development Footprint has also been revised.

Row two details the preferred southern gas pipeline route impacts on this vegetation community, which reduces the total impact on BGW by 0.106 ha.

Table 4-8 Box Gum Woodland areas to be impacted

	Gas pipeline (northern)	Gas pipeline (southern)	Plant Footprint	Development Footprint
As per alignment proposed within the EA	1.20174	0.106355	4.728774	6.036869
As per the alignment proposed within the Preferred Project Report	1.20174	0	4.728774	5.930514

(DP&I 16/4/12):

- *General, typo:*

- Figure 4-2, on page 134 of the Submissions Report, is incorrectly titled and is required to be amended to reflect its content

Response

Figure 4-2 title amended.

5

Revised Statement of Commitments

5.1 Introduction

The commitments detailed with **Section 19.3 of the EA** still apply to the Project. This section outlines certain additional commitments agreed by AGL following exhibition of the EA. This is in response to the above submissions, additional Project detail included within this Report, and, in accordance with clause 75F(6) of the EP&A Act.

5.2 Additional Commitments

Twelve (12) additional commitments are proposed following receipt of the submissions. These are presented in **Table 5-1** below.

Table 5-1 Additional Commitments

Mitigation Measure and Commitment	Implementation of mitigation measures		
	Design	Construction	Operation
Project Description			
AGL commits to operating the plant for a maximum period of 15% of any twelve month period. Operational limits on the facility would be stipulated within Conditions of Consent and AGL would be obligated to ensure compliance with these and conditions of the Site Environment Protection Licence (EPL).			✓
Dust suppression			
AGL commits to sealing Walsh's Rd and Loop Rd (permanently following the construction of each stage), and to ensure temporary sealing and the application of appropriate and effective dust suppression measures during construction activities.	✓	✓	
Visual			
AGL commits to ongoing liaison with landowners potentially impacted by views from their homes towards the valve station, and with the residents of Mt Pleasant in efforts to minimise the impact of views towards the power station through establishing vegetations screens where appropriate.	✓	✓	
Noise			
AGL commits to the development of the Noise Management Plan and included monitoring protocols in consultation with OEH and the community to ensure monitoring satisfies community concerns and achieves noise protection objectives for the Project	✓		
Water			
AGL commits to sourcing the required operational water supply from onsite groundwater extraction. AGL is not currently proposing that the trucking of operational water to site be approved. Should the trucking of water to site be reconsidered at some future date, a separate approval application would be prepared for this.			✓
AGL commits to a long term program of water level monitoring in the production bores to provide important baseline water level data and facilitate the long term sustainable management of the groundwater resource. AGL would include this monitoring within their Water management plan for the site, should the project be approved.		✓	✓
AGL will implement appropriate water quality and sediment management controls within the CEMP in relation to a Concrete	✓	✓	

5 Revised Statement of Commitments

Mitigation Measure and Commitment	Implementation of mitigation measures		
	Design	Construction	Operation
Batching Plant (CBP) if this is required for the Project.			
Air Quality			
AGL will carry out the post commissioning verification for air emissions in accordance with the licence conditions from OEH.		✓	✓
AGL will develop and Air Quality Monitoring Plan which would devise appropriate air quality monitoring protocols to ensure the impact of construction and operation do not cause ambient air quality within Dalton and surrounding areas to exceed regulatory compliance at any stage. As part of this management plan, monitoring locations would be decided upon in consultation with OEH and the community. AGL will liaise with OEH regarding conditions of consent and this monitoring program to instil confidence within the community that appropriate monitoring will be undertaken at sensitive locations.			✓
Flora and Fauna			
Following submission of the Flora and Fauna Assessment (FFA) in July 2011 AGL commits to entering into a conservation agreement (CA) that will secure the dedication in perpetuity of a biodiversity offset area. The proposed offset area is shown in Figure 9 of the FFA and will be approximately 183.25 hectares.	✓		
Socio-economic			
AGL is prepared to negotiate a voluntary planning agreement with the Minister and Upper Lachlan Shire Council once a contribution has been agreed.	✓	✓	✓
Traffic and Transport			
Following Project approval, AGL and its contractors would update the draft TMP prepared for the Project to incorporate the CBP throughout the construction period. This would be done in consultation with Council.	✓	✓	

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Limitations

URS Australia Pty Ltd (URS) has prepared this report in accordance with the usual care and thoroughness of the consulting profession for the use of AGL and only those third parties who have been authorised in writing by URS to rely on the report. It is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this report. It is prepared in accordance with the scope of work and for the purpose outlined in the Proposal dated 20.09.2011 and subsequent variations.

The methodology adopted and sources of information used by URS are outlined in this report. URS has made no independent verification of this information beyond the agreed scope of works and URS assumes no responsibility for any inaccuracies or omissions. No indications were found during our investigations that information contained in this report as provided to URS was false.

This report was prepared between 5th September and March 21st 2012 and is based on the conditions encountered and information reviewed at the time of preparation. URS disclaims responsibility for any changes that may have occurred after this time.

This report should be read in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties. This report does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.

A

Appendix A Summary of Submissions

Appendix A Summary of Submissions

Table A-1 Summary of Agency and Community Submissions Received

Submission Number	Author	Summary of Issue	Paraphrased Issue	Section Addressed
19969	**ULSC**	Community Enhancement	EA fails to recognise the existence of Council's Development Control Plan regarding community enhancement. Request a condition requiring the proponent to provide a contribution in accordance with Section 3.17 of the Upper Lachlan Development Control Plan 2010 should be included in the determination if approved.	3.11.1
19969	**ULSC**	Noise	Potential impacts of 24/7 operation for extended period of time have not been addressed,	3.3
19969	**ULSC**	Project Description (Gas pipeline)	Indicated preference for gas pipeline currently in along Walshs Road to be beyond road reserve in private property to east of road.	3.5.1
19969	**ULSC**	Traffic (assessment)	Disagrees with traffic assessment and notes potential road safety issues with how the likely road users are going to mix with each other safely (eg. road crests, curves and signage).	3.10.1
19969	**ULSC**	Traffic (over-mass and over-dimensional)	Consultation required with Council regarding routes for over-mass and over-dimensional vehicles. Concern about old culverts and capacity of rail overbridge.	3.10.1
19969	**ULSC**	Traffic (remedial works)	Potential for greater damage from deliveries of materials. Lightly trafficked roads will not cope with additional loading and significant damage. Need for agreement with Council for repair of roads post project. Expectation that road repairs would be completed at the end of each stage if Stage 1 and 2 are separated by more than several months. Traffic on unsealed roads in vicinity of Dalton village may cause dust issues. Community has an expectation that the roads will be reconstructed and sealed to council specifications.	3.10.1
19969	**ULSC**	Traffic (road safety)	Failure of assessment to address urban safety issues around selection of routes near schools and preschools and associated with walking trails and separation of pedestrians from heavy traffic.	3.10.1
19969	**ULSC**	Wastewater	Management of residual waste from evaporation ponds and likely contaminants.	3.6.1
19969	**ULSC**	Water supply (sources)	Lack of information provided about water supply requirements and sources. Describes potential issues with each of the identified sources.	3.6.1

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Submission Number	Author	Summary of Issue	Paraphrased Issue	Section Addressed
19998	**Withheld**	Land Value	Concern over property value depreciation and provision of adequate compensation.	3.11.2
20000	**Withheld**	Other (Geology)	Has AGL assessed an earthquake scenario as part of the Environmental Assessment and has Geoscience Australia been consulted?	3.15.2
20002	**Withheld**	Air Quality	Concerns over exhaust plume fall out contaminating water tanks and crops.	3.2.2
20002	**Withheld**	Project Need and Alternatives	Questions whether AGL considered sites (within the same locality) that did not impact on the population.	3.15.2
20004	**Withheld**	Air Quality	Independent air quality monitoring from the exhaust plume on site.	3.2.2
20016	**Julian Edgar**	Air	Modelling is not based on existing air levels of emissions in the Dalton environment.	3.2.2
20016	**Julian Edgar**	Noise (traffic)	Traffic noise assessment addresses impact to maximum noise rather than the increased frequency of noise.	3.3.2
20016	**Julian Edgar**	Operating time	Uncertainty around run time given that economic factors relating to electricity generation are likely to change. Requests limits be placed on run time to provide certainty.	3.5.2
20016	**Julian Edgar**	Operating time	Inconsistency between process water being modelled on 5 % use and operation of the power station as 15% use.	3.5.2
20016	**Julian Edgar**	Water (source)	Water source requirements are not adequately addressed. Trucking water is inconsistently addressed. Trucking water as the only water supply source appears to be problematic.	3.6.2
20019	**Withheld**	Alternatives	Location is more suited to an industrial area closer to a larger population where transmission loss are not as significant as from a remote location like Dalton.	3.15.2
20019	**Withheld**	Project description (Dalton town)	Dalton township is not mentioned on maps in EA.	3.5.2
20019	**Withheld**	Traffic (route)	Concern about the clearing of trees along the route to the site and that they provide habitat for wildlife and wind protection for adjacent livestock. Replanting is not acceptable due to age of the tress and lag time in trees regenerating.	3.10.2
20019	**Withheld**	Traffic (safety)	Impact on of traffic from the development on pedestrian safety for school bus routes.	3.10.2

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Submission Number	Author	Summary of Issue	Paraphrased Issue	Section Addressed
20019	**Withheld**	Water (source)	Proposed water source options are not feasible so it is likely that trucking will be the main supply option which will have a significant impact on traffic.	3.6.2
20022	**Pat Robinson**	Air Quality	There is a lack of information regarding the design features of the plant.	3.2.2
20022	**Pat Robinson**	Noise (Effects on Dalton Village)	Potential noise impacts of construction and operation of the power station on the Dalton Village have not been taken into account.	3.3.2
20022	**Pat Robinson**	Noise (Noise emission and monitoring)	There is ambiguity regarding the noise emission performance under normal operation and how noise monitoring will be conducted.	3.3.2
20022	**Pat Robinson**	Noise (Community consultation)	Lack of information regarding community engagement involving noise issues and the implementation of remedial measures.	3.3.2
20022	**Pat Robinson**	Operating Time	Inconsistencies in the listed operational time of the proposed project.	3.5.2
20034	**Anthony Walsh**	Compensation	Lack of information regarding compensation.	3.11.2
20034	**Anthony Walsh**	Consultation	Consultation from AGL has been extremely poor.	3.13.2
20034	**Anthony Walsh**	Land Value	Degradation of the land, and loss of property value	3.11.2
20034	**Anthony Walsh**	Operating Time	Lack of transparency about future plans for the site.	3.5.2
20034	**Anthony Walsh**	Water	Lack of information provided about water supply requirements and sources.	3.6.2
20038	**Kath Vivas**	Air Quality	Further emissions estimations should be measured at sites within Dalton. Ongoing monitoring should be undertaken for the life of the proposed power station.	3.2.2
20038	**Kath Vivas**	Traffic	Raised concerns over truck usage creating dust, noise and traffic hazards	3.10.2
20038	**Kath Vivas**	Water Supply	AGL to consider harvesting rainwater for use and consider water recycling. Using the Dalton groundwater supply should be avoided.	3.6.2
20042	**Alister Waine**	Noise/Air	Dalton Public School has not been considered as a “sensitive receptor.”	3.15.2
20042	**Alister Waine**	Air Quality	Background and pre-development air quality assessments for the site, the village of Dalton or other “sensitive receptors” have not been conducted.	3.2

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Submission Number	Author	Summary of Issue	Paraphrased Issue	Section Addressed
20042	**Alister Waine**	Air Quality	Lack of information regarding how the air quality will be impacted by the upstream and downstream sources, including the high volumes of traffic.	3.2.2
20042	**Alister Waine**	Air Quality	Lack of information regarding dust abatement from traffic.	3.4
20042	**Alister Waine**	Alternative Sites	Failure to address electricity transmission losses in considering alternatives to the proposed facility.	3.15.2
20042	**Alister Waine**	Consultation	Future consultation with community regarding traffic disruptions	3.10
20042	**Alister Waine**	Flora/Fauna	Lack of information provided regarding vegetation clearing necessary for the movement of oversized loads and any associated road alternations.	3.5
20042	**Alister Waine**	General Inadequacies	The assessment is not adequate in addressing the DGR's and fails to provide sufficient information that are required to determine the environmental impacts.	3.15.2
20042	**Alister Waine**	Noise	Background and pre-development noise assessments for the site, the village of Dalton or other "sensitive receptors" have not been conducted.	3.3
20042	**Alister Waine**	Noise (Traffic)	Lack of information provided regarding how the traffic will impact noise levels.	3.3 and 3.10
20042	**Alister Waine**	Operating Time	Inconsistencies in the listed operational time of the proposed project.	3.5
20042	**Alister Waine**	Operating Time	Water-use data relates to operation of 5% of the year.	3.6
20042	**Alister Waine**	Socio-Economic	Proponent must be willing to compensate for any devaluation independently assessed.	3.11
20042	**Alister Waine**	Socio-Economic	Lack of information provided regarding decrease in demand for Dalton real-estate.	3.11
20042	**Alister Waine**	Traffic	Lack of information provided regarding the routes for the movement of oversized loads and any associated road alternations.	3.10
20042	**Alister Waine**	Traffic	The road between Dalton and Gunning does not have "over-taking opportunities for both directions. "	3.10
20042	**Alister Waine**	Traffic (Social Impacts)	There will be significant distributions caused by the by the road modification and number of heavy vehicles.	3.5 and 3.10
20042	**Alister Waine**	Traffic (Gunning)	Environmental Risk Assessment does not address traffic impacts on Gunning.	3.10.2

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Submission Number	Author	Summary of Issue	Paraphrased Issue	Section Addressed
20042	**Alister Waine**	Visual	Lack of information provided regarding visual impacts of the vegetation clearing necessary for the movement of oversized loads and any associated road alternations.	3.8.2
20042	**Alister Waine**	Water (source)	Lack of information provided about water supply requirements and sources.	3.6
20042	**Alister Waine**	Water (Drinking)	Contamination of drinking water supply (harvested rain water).	3.2.2 and 3.7.2
20050	**Withheld**	Air Quality	The EA did not establish the existing air quality at Dalton Public School.	3.2.2
20050	**Withheld**	Consultation	Dalton Public School and Department of Communities and Education have not been consulted about the project.	3.13.2
20050	**Withheld**	Noise	The EA did not establish the existing noise levels at Dalton Public School.	3.3.2
20050	**Withheld**	Traffic	Disruption to access the Dalton-Gunning Road would impact the ability of staff and students to get to the Dalton Public School.	3.10.2
20497	**Walsh Families**	Air Quality Construction Impacts	Dust creation is a concern due to son having asthma.	3.4.2
20497	**Walsh Families**	Flora and Fauna	Concern over some species which were not recorded as part of the flora and fauna assessment.	3.9.2
20497	**Walsh Families**	Noise	The noise impacts of the project are unclear.	3.3.2
20497	**Walsh Families**	Traffic	Serious implications for local people from increased road use, both in the construction phase and ongoing operations. AGL to demonstrate how they will ensure Walsh's Road will be kept safe for use by local families.	3.10.2
20497	**Walsh Families**	Visual Impact	Insufficient visual simulations to show impact from their property.	3.8.2
20497	**Walsh Families**	Water supply	Clarification required on where the water for the facility will come from, both for operation and construction.	3.6.2

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Submission Number	Author	Summary of Issue	Paraphrased Issue	Section Addressed
20501	**Andrea Strong on behalf of CAIAD**	Air Quality	Inaccuracies in the air quality assessment. It is requested that an independent expert assessment of the air quality impacts be undertaken once specifics of the project are known (including during the worst case meteorological conditions). Any approval to contain stipulations that air emissions may not exceed NSW government limits.	3.2.2
20501	**Andrea Strong on behalf of CAIAD**	Consultation	There has been inadequate community consultation, with impacts to the community not properly identified and disclosed. Letters to be issued to community members to inform of potential negative impacts and how these are being mitigated.	3.13.2
20501	**Andrea Strong on behalf of (CAIAD)**	Cumulative Impacts	Excessive cumulative negative effects on air quality, noise levels and scarce water sources.	3.15.2
20501	**Andrea Strong on behalf of n CAIAD**	Noise and Vibration	Inaccuracies in the noise and vibration assessment. It is requested that an independent expert assessment of the noise and vibration impacts be undertaken once specifics of the project are known (including during the worst case meteorological conditions) Any approval to contain stipulations that noise emissions may not exceed NSW government limits. An inquiry is requested into the Uranquinty power station to determine why the actual noise and vibration impacts have exceeded those predicted.	3.3.2
20501	**Andrea Strong on behalf of CAIAD**	Operating time	An enduring limit on the size of the power station to Stage 1 with operation not to exceed 15% of the time (and 5% of the time where water is required).	3.5.2
20501	**Andrea Strong on behalf of CAIAD**	Project Justification	There is no justification for a power station of this scale, on the basis of supply need in the electricity market.	3.15.2
20501	**Andrea Strong on behalf of CAIAD**	Statutory Planning	The proposal is inconsistent with the aims of Upper Lachlan Shire LEP 2010 to: “encourage conservation of natural resources”; and “promote the use of rural resources for agriculture and primary production”.	3.15.2
20501	**Andrea Strong on behalf of CAIAD**	Water Quality Impacts	An independent expert assessment of available water in the area.	3.7.2
20507	**NSW Trade & Investment**	General	No issues in relation to forests minerals and fisheries.	3.15.1

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Submission Number	Author	Summary of Issue	Paraphrased Issue	Section Addressed
20507	**NSW Trade & Investment**	Land use (agriculture)	Refers to guidelines developed by the Department for relevant environmental matters to be considered for infrastructure developments.	3.15.1
20507	**NSW Trade & Investment**	Planning (pipeline licence)	Licence is required for new gas pipeline branch from existing Moomba to Sydney Pipeline. Variation to existing licence is likely to be sought.	3.15.1
20511	**RTA**	Traffic (over-mass and over-dimensional)	Further details required for managing issues with transporting oversize/over-mass loads on classified road network including the Hume Highway crossing of Paddy's river at Marulan and Gunning Road bridge. Recommends liaison with RTA Special Permits Unit.	3.10.1
20511	**RTA**	Traffic (road modifications)	If modifications to the classified road network are proposed, they will require the concurrence or consent of RTA under Roads Act 1993.	3.10.1
20519	**Land & Property Management Authority**	Planning (Crown lands)	Consent for works on Crown lands.	3.15.1
20519	**Land & Property Management Authority**	Planning (waterway access)	Parts of Project area adjoin Lachlan River and Jerrawa Creek which are Crown waterways. All current access points to both waterways must remain open and available for public use. Any works and or operational activities must not impact on the bed and banks of these waterways, or affect the flows to or within the waterway/s.	3.15.1
20519	**Land & Property Management Authority**	Planning (waterway access)	If any disturbance or activities are to occur within the waterway and or access is required Crown Lands Department must be consulted prior to any disturbance or activities. This is to ensure that there is no long term impact on the Crown waterway/s and any adjoining riparian zones.	3.15.1
20906	**CASA**	Air Quality	The Advisory Circular (AC) is currently under review. The revision of the Advisory Circular is likely to result in a reduced upper limit and, given this probability, the Office of Airspace Regulation (OAR) suggests the proposal be reviewed six months prior to the commencement of operations to ensure the most up to date information is available for application.	3.2.1

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Submission Number	Author	Summary of Issue	Paraphrased Issue	Section Addressed
20897	**Office of Environment and Heritage (OEH)**	Noise	Tonality and low frequency noise are likely and accordingly, adjustment should be made in noise limits for the project; consideration be given to a C-weighted (low frequency) noise limit; The use of TAPM data needs to be demonstrated as not under predicting temperature inversions and light winds; Site based meteorological monitoring is recommended.	3.3.1 3.3.2 Section 4.6
20897	**OEH**	Air	Emission limits and monitoring program are recommended.	3.2.1
20897	**OEH**	Water	Project required to achieve nil-discharge to the environment.	3.7.1
20897	**OEH**	Flora and fauna	The mechanism for securing the biodiversity offset needs to be identified. Further survey work required for certain threatened species prior to construction.	3.9.1
20897	**OEH**	Cultural Heritage	The cultural heritage assessment and its recommendations are supported.	3.12.1
20897	**OEH**	Environment Protection Licence	The proponent will need to make a separate application to the OEH to obtain an Environment Protection Licence should project approval be granted. If approved the OEH would use these recommended conditions of approval in developing any Licence.	3.2.1 and 3.3.1
20737	**NOW**	Water sourcing	As these options have not been finalised and no water licences or agreements with licensed providers have been obtained, this represents a significant commercial risk to the project.	3.6.1
20737	**NOW**	Consultation	The NSW Office of Water requests consultation during the development of management plans relevant to water management for both construction and operation periods.	3.13.1
20737	**NOW**	Water licensing	Based on the potential water supply options detailed in the EA it is likely that the proponent will require licenses under the Water Act 1912 or Water Management Act 2000 and the transfer of water entitlements prior to water extraction and use at the site.	3.6.1
21194	**Katrina Hodgkinson**	Air Quality	Air quality monitoring needs to be done in and around Dalton. The health of people living in the area should not be compromised by this plant.	3.2.2

Appendix A Summary of Submissions

Submission Number	Author	Summary of Issue	Paraphrased Issue	Section Addressed
21194	**Katrina Hodgkinson**	Traffic	Local roads including the Loop Road and the Gunning − Dalton Road need to be upgraded in order to handle the weight and frequency of traffic required for the plant during construction and normal operation. AGL to tailor the time of day when traffic flows through town, so as to cause minimum disruption to people living in the area	3.10.2
21194	**Katrina Hodgkinson**	Water	Water sourcing options, and the imperative for options not to impact on surrounding primary producer's ability to water stock and crops as well as local water supply for the towns of Gunning and Dalton.	3.6.2
21194	**Katrina Hodgkinson**	Water/ Council contribution	Submission strongly urges AGL to make a significant capital contribution to the proposed augmentation and upgrade of the Gunning−Dalton water supply infrastructure	3.11.1
21194	**Katrina Hodgkinson**	Consultation	AGL needs to closely consult with landowners with respect to obtaining any easements for the augmentation of existing gas pipelines and high voltage electricity transmission infrastructure to the proposed power station. AGL also needs to mitigate the productive and environmental impacts of any such upgrades.	3.13.2
21194	**Katrina Hodgkinson**	Noise	Local residents are concerned about the noise associated with construction and operation of the plant. Low frequency noise to be considered	3.3.2
21194	**Katrina Hodgkinson**	Flora and Fauna	Neighbours to the proposed plant site, Mr and Mrs J Walsh believe investigations into the stated impact on flora and fauna within the EA are inadequate	3.9.2
21194	**Katrina Hodgkinson**	Socioeconomic/ community contribution	Request for AGL to outline the community contribution to be made	3.11.2

Appendix A

Table A-2 DP&I Comments on the Draft Response to Submissions Report and EA 2/12/2011

Summary of Issue	Comment/ Issue/ additional requirement	Section Addressed
Noise	Additional receptors are required to be considered within the noise assessment: • operation -mainly those in proximity to receptors already confirmed as exceeding 35dB (receptors B,C,D) i.e R21 and R12-17; and • construction - those in proximity to the valve station and pipeline i.e R12-R14 & R17.	3.3.1 pp 27 Section 4.6, Table 4-1 pp.146
Noise	Clarification is required on whether the valve station will emit noise	3.3.1 pp. 29 Section 4.6, pp.146, 147
Noise	The response to the Walsh family should indicate that they are receptor B, and detail the results of the noise assessment, level of exceedence and impacts for their property.	3.3.1 pp. 29
Water Supply	The potential sources of water (and quantities from each source) for the operation of the project and associated impacts (i.e. any proposed infrastructure upgrades and/or infrastructure required to connect to the site and/or capital contributions) have not been adequately addressed to provide confidence that one, or a combination of these options can source the project if required. This is to be further detailed to enable the Department to have confidence regarding the nature/acceptability of impacts of sourcing water from one or a combination of these sources (Dalton potable water supply, Gunning potable water supply, Gunning sewage treatment plant, groundwater extraction). It will not be possible for the Department to approve water supply sources for the project should the level of information be insufficient	3.6.1 pp. 55
Water Supply	a maximum of 140ML of water is stated as being required for stage 2. Trucking of up to 25ML per annum of water is stated as being the preferred option of sourcing this water, with groundwater extraction of up to 104ML to supply the remainder. These figures do not correlate, and require clarification;	3.6.1 pp. 55 3.6.2 pp. 65
Water Supply	the source of the tankered water should be detailed. NOTE: Section 3.6 clarifies AGL's revised preference to source all operation water demands through groundwater extraction from onsite bores.	Section 3.6.2 pp. 68
Water Supply	the response does not address section 6.2-6.9 of the "Community for accurate impact assessment of the Dalton Power Station" submission.	Section 3.6.2 pp. 69-72

Appendix A Summary of Submissions

Summary of Issue	Comment/ Issue/ additional requirement	Section Addressed
Socio-Economic	the response does not adequately address the concerns raised with respect to the impact on property prices. The response states that property prices are complex and influenced by many factors, and the response briefly touches on one of these factors being amenity and then refers to the EA. The response needs to expand on the range of factors and impact the power station may have on surrounding property prices; and	3.11.2 pp. 92-93
	the response does not adequately address any proposed community initiatives directly related to the project. The response mentions examples of community initiatives provided/supported by AGL at other locations unrelated to the project, and a broad statement that AGL has an active community engagement philosophy. The response further states that AGL is currently in discussions with the Upper Lachlan Shire Council regarding any initiatives, and that AGL is prepared to negotiate a voluntary planning agreement (VPA) with Council. Although a commitment has been given regarding negotiating a VPA, further detail should be given regarding a range of potential community initiatives and/or community enhancement funding directly related to the project.	3.11.1 pp.91-92
Socio-Economic	The agricultural impacts of the proposal as detailed in the NSW Trade and Investment guidelines "Infrastructure proposals on rural lands" need to be elaborated. The class of agricultural land and impact of the loss of this land to agriculture in the region should be quantified.	3.14.1 pp. 105-111
Traffic Impacts	• a map should be provided to detail the proposed route of both the construction traffic and water tankers; • details of the draft detailed management plan referred to in the response should be elaborated; • the response states that Walshs Road and Loop Road will be temporarily sealed during construction activities then permanently sealed following construction of each stage ... however it further states that the roads used for access to the site would be sealed at the commencement of construction, and requires clarification; and • the response' states that the safety and amenity of the community will be managed by experienced haulage contractors in liaison with the RTA and police, however does not elaborate on what these management measures may be.	Section 4.7 pp. 152-158 Section 4.7 pp. 157 Section 3.10.2 pp. 88
Air-Quality Impacts	the response does not adequately address the concerns regarding air quality monitoring in and around Dalton other than stating that a range of monitoring will be undertaken. Further detail should be given to indicate type and potential locations for future air quality monitoring (including the likelihood of one of these locations being Dalton Public School as it has been identified in the submissions as an area of concern).	Section 5, Table 5-1 pp. 159 3.2.2 pp.11, 13
Visual	The response states that AGL has conducted detailed assessments of the design of the power station. The 3D image however, in block form, does not provide an adequate representation of the built form of the power station. This is required to be updated to more accurately represent what the power station may look like in reality, within the context of the immediate surrounds.	3.8.2 pp.73 Figure 4-4 Section 4.5 pp. 134
Visual	The inclusion of dimensions of the power station layout and components, levels and setbacks to the site boundaries within the site concept plan (i.e Figure 4.3 of the EA) represented on A3 sized pages has not been provided. Elevations from all four sides of the power plant are required. A height is also to be indicated on the communications tower plan.	Section 4.5 Appendix F Figure 4-12

Appendix A

Summary of Issue	Comment/ Issue/ additional requirement	Section Addressed
Land use	The agricultural impacts of the proposal as detailed in the NSW Trade and Investment guidelines "Infrastructure proposals on rural lands" need to be elaborated. The class of agricultural land and impact of the loss of this land to agriculture in the region should be quantified.	3.14.1 pp. 105-111
Project description	A commitment should be included limiting operation of the power plant to 15% of any twelve month period.	3.2.2 pp. 13 Section 5, Table 5-1 pp.159
Flora and Fauna	In response to a submission relating to the 33 hollow bearing trees being offset by the existing 49 hollow bearing trees, it is stated that the offset requirements have been developed to meet state and federal requirements, this needs to be expanded.	3.9.2 pp. 84-85

Appendix A Summary of Submissions

Table A-3 DP&I / EPA/ NOW and Community Submissions and Comments on the Response to Submissions Report 27/01/2012

Issue	Comment/ Issue/ additional requirement	Section Addressed
DP&I		
Noise Impacts	Following the EPA's comments on the draft submissions report (dated 22 February 2012), the Department and EPA have confirmed a revised approach in relation to the management of noise impacts (in particular low frequency noise) (letters attached). The submissions report is required to be amended to address this revised approach.	Section 3.3 (pp 25-51)
Graphical Representation	The 3D image still does not provide an adequate representation of the built form of the power station. This is required to be updated to more accurately represent what the power station may look like in reality, within the context of the immediate surrounds.	Amended Figure 4-4 included
	Elevations from all four sides of the power plant have still not been provided (i.e elevations are still required looking North and East).	Revised plans provided in Appendix F Figure F-1 – proposed layout with plant scale and setback distances; Figure F-2 – layout showing elevation series view point; Figure F-3 –elevations looking north (elevation 1) and south (elevation 2); and Figure F-4 –elevations looking east (elevation 3) and west (elevation 4).
	The two elevations provided do not accurately represent all the project components (they only provide a representation of 2 turbines) and are therefore required to be updated to reflect all project components.	
	The inclusion of dimensions of the power station layout and components and setbacks to the site boundaries within the site concept plan (i.e Figure 4.3 of the EA) represented on A3 sized pages has still not been provided.	
Land Capability	The class of agricultural land (as per the NSW Agriculture's agricultural land classification system) and impact of the loss of this land to agriculture in the region has still not been Quantified.	Revised text within Section 3.13.1 (pp.115-116)
Water Quantity	The quantity of water to be trucked to the site should be consistent through-out the submissions report. At present it is stated that the quantity of water to be trucked would be limited to 200 to 300 KL per annum (section 3.6), however references still exist to trucking a maximum of 25ML, as does a commitment to trucking a maximum of 25ML of water.	Addition to Section 1.2 (pp. 2) and throughout Section 3.6.1 and 3.6.2
Project Description	The inclusion of a definitive statement that confirms approval is no longer being sought for the use of E class turbines.	Addition to Section 1.2 (pp.2) and throughout report where discussion also relevant.

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Issue	Comment/ Issue/ additional requirement	Section Addressed
Visual	Address the additional submission from Wayne Apps, 1 Young Street Dalton (attached), in particular the request for a visual impact analysis to be undertaken from his property, and concerns raised regarding the accuracy of the photomontages (in particular the photomontage taken from photo location 1). Address the additional submission from Louise Duncan, 053 Felled Timber Road Dalton, (attached), in particular the visual impact from her property.	Section 4.9 Section 4.9.1 (pp. 174) + Figure 4-21 pp. Section 4.9.2 (pp. 185) + Figure 4-22
Consultation and community engagement	Address the additional submission by the Community for Accurate Impact Assessment of the Dalton Power Station (attached).	Section 4.9.3 (pp. 188)
Additional Surveys	The additional surveys (Flora Surveys, Golden Sun Moth Survey, Hydro-geological assessment) and report on the mechanism for biodiversity offset are to be included.	Appendix D- Additional Ecology Effort D-1 Envirokey survey D-2 Flora survey report D-3 GSM survey Appendix G updated with revised Hydroilex report
EPA - Environment Protection Authority		
Noise	AGL has accepted the EPA's updated recommended noise limits and monitoring set out in our letter of 24 *November* 2011 with the exception of the night-time sleep disturbance criterion (LAmax (1 min) 45 dB(A)). This limit was derived from the noise impact assessment for the proposal. Compliance is proposed to be determined within 1 metre of the dwelling facade. AGL suggests that as the condition is designed to limit sleep disturbance impacts that it should be applied in the interior of a dwelling. The EPA normally sets compliance monitoring for sleep disturbance conditions within 1 metre of a dwelling fagade to facilitate compliance monitoring, as interior noise monitoring can be disruptive to dwelling occupants. AGL asserts that it is commonly accepted that partially open windows provide a 10 dB noise reduction. If AGL wishes to monitor compliance within a dwelling, then the correct interior sleep disturbance limit would be La max (1 min) 35 dB(A). The EPA recommends the retention of the compliance point (and noise limit) for this recommended condition (L6.1 and L6.2(b) (ii) as drafted in our correspondence of 24 November 2011.	Section 3.3.1

Appendix A Summary of Submissions

Issue	Comment/ Issue/ additional requirement	Section Addressed
Planning & Infrastructure		
Low Frequency Noise	…Discussions concluded that the low frequency noise from gas fired power stations should be regulated on a case-by-case basis until an Application Note to the Industrial Noise Policy (INP) is finalised by the EPA. Further it was considered that the C-A weighting plus 5dB(A) penalty approach as defined in the INP, is not a good measure of annoyance, and could result in the application of measures that would not improve environmental outcomes. In this regard, the Department proposes that noise levels at the nearest residences to the Dalton power station should not exceed: • 35 dB(A) during the day, evening or night; or • 65 dB(C) during the day or 60 dB(C) during the evening and night. Further, should either of these limits be exceeded, then mitigation on request should be offered to all affected residents, which should be agreed with the affected residents and provided within 3 months of request.	Section 3.3.1
EPA - Environment Protection Authority		
Low Frequency Noise and Tonality	The EPA is satisfied that the approach proposed by the Department of Planning and Infrastructure will protect the amenity of residences potentially impacted by noise from the proposed project. The EPA will ensure if the project is approved, that the proposed noise limits set out in your letter are incorporated into any Environment Protection Licence issued for the project. It should be noted that depending on the character of noise emissions from the turbines, a 5dB penalty may be added to the measured noise levels at affected residences if the noise is tonal or impulsive in character.	Section 3.3.1
Air	AGL has accepted the updated monitoring conditions that were recommended by the EPA in its correspondence of 24 November 2011. It is recommended this monitoring be incorporated into any approval conditions.	Section 3.2.1

Appendix A

Issue	Comment/ Issue/ additional requirement	Section Addressed
Flora and fauna	• Further survey work was recommended by the EPA for certain threatened species required prior to construction, and incorporation of survey findings into project design. • Golden Sun Moth *(Synemon plana).* EPA received the report *"Dalton Power Project - Golden Sun Moth Targeted Survey"* dated 25 January 2012 and prepared by URS. The EPA has reviewed the report and found that an adequate survey was conducted. The prevailing weather conditions during the *2011/12* flying season resulted in a low number of moths seen at reference monitoring sites in the southern tablelands. The EPA is satisfied that the survey was conducted in accordance with the relevant guidelines and no moths were detected at the project site and associated infrastructure. Therefore the EPA concurs that it is unlikely there will be any significant impact on the Golden Sun Moth if the project were to be approved. Threatened Flora (Yass Daisy, Silky Swainson-pea, Button Wrinkelwort, Hoary Sunray). As requested by OEH in its submission on the Environmental Assessment, spring surveys were carried out by URS for the above threatened flora species and reported in the Submissions Report. None of the NSW listed threatened species (Yass Daisy, Silky Swainson-pea, Button Wrinkelwort) were detected on the project site or in the locality. The EPA concurs that it is unlikely there will be any significant impact on these species if the project were to be approved.	Section 3.9.1 (pp. 80 – 87)
Department of Primary Industries- Office of Water		
Water	• The Office of Water has completed a review of the pump test results presented in the Hydroilex report 'Hydrogeological Assessment Incorporating 24Hr Pumping Test (Bore 1 and Bore 2)' dated 22 February 2012 whilst taking into account Stages 1 and 2 (based on The F Class turbine type) required water supply. Based on this review the Office of Water concludes that the required water supply requirement of 25 ML 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. Appropriate licensing under NSW water legislation will be required. • The results of the Hydroilex 24 hour pumping test included water level measurements collected from water users within a 4 km radius of the site. Impacts to water levels were not identified in water user bores within this radius during or immediately after the test, thus it is not anticipated that other bore owners will be impacted by the proposed pumping at the site. Based on the hydrogeological characteristics at the site and the volume of proposed water to be extracted, the Office of Water does not anticipate significant impacts to the Lachlan River.	Section 3.6.1 Section 3.6.2 Appendix G

Appendix A Summary of Submissions

Issue	Comment/ Issue/ additional requirement	Section Addressed
Additional comments/ requests from DP&I		
Project Justification	DP&I noted that the AEMO updated its electricity statement of opportunities on 2 March 2012 and requested that AGL take account of this update within the Final Response to Submissions Report. – *Email from Toby Philp 16.03.12*	Cross reference added to section 3.14.1 and revised text added to existing relevant discussion in Section 3.14.2.
Low Frequency Noise	As part of the Submissions Report, in response to low frequency noise, can you please ensure that you address the dB(C) calculations by the EPA in its letter dated 24 November 2011, which indicate that the dB(C) levels are likely to be 63-64 dB, with reference to the agreed noise limits between the Department and EPA of 65 dB(C) day and 60 dB(C) evening/night. In addressing this, technical data with respect to any dB(C) calculations should be given (i.e not commercially sensitive data however the method by which the noise levels were measured if different to the EPA), as well as a conclusion as to whether or not the project will be able to meet the proposed noise limits. *– Email from Toby Philp 14.03.12*	Section 3.3.1
Other	Inclusion of submission received from the Department of Defence 19.10.12. The Department of Defence makes no comment on the submissions report at this time.	Noted in Section 3.14.1

Table A-4 DP&I comments received on Submissions Report 22 March 2012 version

Issue	Comment/ Issue/ additional requirement	Section Addressed
DP&I		
Noise – Assessment of Low Frequency Noise	When referencing the Office of Environment and Heritage's (OEH) comments on the draft Submissions Report (dated 24 November 2011), the response incorrectly refers to the OEH's position, at that time, as proposing dB(C) limits in lieu of the Industrial Noise Policy process of assessing low frequency noise. This is required to be amended to reflect the correct position of OEH, at the time of the submission, which was the inclusion of dB(C) limits in addition to the industrial Noise Policy process of assessing low frequency noise.	Section 3.3.1 pp 26 Section 4.10

Appendix A

Issue	Comment/ Issue/ additional requirement	Section Addressed
Graphical Representation	Provide a photomontage representing what is referred to as the likely stack height of 28m, as seen from the village of Dalton (amending the existing photomontage produced for the property of Wayne Apps would be appropriate).	Section 4.10 Figure 4-23
Water Trucking	The Submissions Report still refers to the trucking of 25ML of water (page 72), which is required to be amended to reflect the amended quantity of 200 to 300 KL of water to be trucked per annum.	Section 3.6.2, pp 71, 72. Section 4.10
Box Gum Woodland impacts	The total loss of Box Gum Woodland (BGW) is required to be quantified. The Submissions Report states that the realignment of the southern portion of the gas pipeline will reduce the area of impact on the BGW, as the original southern portion of the gas pipeline alignment impacted on 0.106 ha of BGW. However, in Table 2-1, Appendix H of the EA, the relative clearing impact as a result of the southern portion of the gas pipeline on the BGW is shown to be zero.	Section 4.10.
General - typo	Figure 4-2, on page 134 of the Submissions Report, is incorrectly titled and is required to be amended to reflect its content	Figure 4-2 title amended.

B

Appendix B Submissions

Appendix B-1: The Submissions as Received

Upper Lachlan Shire Council

All correspondence addressed to the General Manager, PO Box 42, Gunning NSW 2581

Crookwell Office: 44 Spring Street, Crookwell NSW 2583
p: 02 4830 1000 | f: 02 4832 2036 | e: council@upperlachlan.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 2293 | e: taralgacsc@ozinternet.com.au

ABN 81 311 241 532

Our Ref: F11/203

15 September 2011

Major Projects Assessment
NSW Department of Planning
GPO Box 39
SYDNEY NSW 2001

Attention: Toby Philp

Dear Mr Philip

RE: PUBLIC EXHIBITION OF ENVIRONMENTAL ASSESSMENT FOR DALTON POWER PROJECT (MP_0035)

Reference is made to your invitation to comment on the public exhibition of the Environmental Assessment for the Dalton Power Project (MP_0035). In response to the invitation, Upper Lachlan Shire Council would like to submit the following comments:

- **Gas Pipeline (southern portion)**

The EA discusses that the pipeline would be constructed along Walsh's Rd. Unfortunately, the existence of approximately ten mature, protected white box and Blakely's Red Gum trees within the road reserve leave inadequate space for both the pipeline and the proposed widening of the road. If the pipeline was to be constructed underneath the road, extreme disruptions to traffic would occur for duration of the construction work. The road reconstruction work would also become difficult as the pipeline would need to be buried at a significant depth to prevent damage to it by the anticipated heavy traffic. The paddock to the eastern side of the road has ample space for the pipeline, is relatively clear and eminently more suitable for the location of the pipeline. There will also be safety and operational issues related to the maintenance of the road if the pipeline was to be laid at the edge of the road and at a shallower depth.

- **Water Supply**

The Environmental Assessment is generalised in terms of water supply requirements and lacks due consideration of potential sources of supply. The Assessment while describing the water demand as 'small essential demand', gives no further guidance on quantities required. From discussions with the applicant it is understood that up to 38ML per annum will be required for this facility. When placed in context with the Dalton Town Water Supply which uses 10ML per annum the essential demand is not considered small. While the EA also indicates that water can be obtained from a number of sources, it fails to be definitive in quantities from respective sources, and given some of these sources do not appear practicable the overall conclusion is questionable.

The Environmental Assessment identifies 5 potential sources for water supply;

1. Augment Gunning Water Supply
2. Augment Dalton Water Supply
3. Utilise Gunning Sewerage Treatment Plant
4. Tankering to site
5. Groundwater extraction

Augmentation of the Gunning Supply - Total annual water consumption at Gunning is in the order of 60ML per annum. The supply lacks sufficient treatment and storage to provide a secure supply during drought and flood events. A demand of 38ML would have a significant impact upon the current water supply infrastructure of Gunning.

A significant increase in water storage, a 12km pipeline and appropriate pumping facilities would be required to enable the applicant to obtain water supply from this system. The applicant must recognise this option has a significant cost that will need to be borne by the applicant and has a lead time to completion. If this option is to be pursued the applicant will need to progress discussions with Council with respect to this option as a matter of urgency.

Augmentation of the Dalton Water Supply -The understood demand of the facility is almost four (4) times that of the existing village system. The existing village system lacks capacity to provide for this demand. Existing low yielding bores are not capable of providing this demand. It is considered doubtful that adequate yielding bores to supplement the town supply to meet the applicants water demand can be provided.

Gunning Sewerage Treatment Plant - The EA suggests Gunning STP effluent as an option if quality and quantity are sufficient. The annual discharge of effluent from the Gunning STP facility is around 25ML. This quantity is below the understood demand of the facility. Effluent quality is well below that required for potable and process needs identified in the EA. The effluent discharge is also located more than 15km from the proposed site. Given the cost of additional treatment, a pipeline to convey it and a lack of quantity to meet total needs, using Gunning STP effluent is not considered a realistic option.

Tankering to Site - Tankering water to site is nominated as the preferred option. The basis of this preference and an analysis of the logistics of achieving this is not provided in the EA. The EA does not consider the traffic impacts, nor from what source is the tankered water to be obtained. Council is unable to fully consider the impact upon its road network without having information with respect to the route and number of tanker loads needed.

Groundwater Extraction - Groundwater availability in the area is largely an unknown quantity, however given local experiences the ability to obtain a sufficient groundwater source is considered doubtful. Irrespective of the success or otherwise of groundwater investigations it is impossible to fully assess the impact of the development without further information on quantities of water required and also further investigations with respect to potential groundwater availability.

In order to undertake adequate consideration of the water supply component of this project it is considered that the applicant needs to provide further information and undertake further investigations with regard to detail of the water supply options

- **Wastewater**

The EA identifies that blowdown water will be disposed of in lined evaporation ponds. The EA, however, fails to identify how residual waste from those ponds will be managed, nor details on the expected contaminants contained therein.

- **Noise**

Concerns are raised regarding the potential noise levels during the day and at night if the full potential of the project is realized, eg. 24/7 for an extended period of time. The EA has not explained the potential impacts of this situation.

- **Traffic and Transport**

The EA discusses transport issues by claiming that the existing road network has the capacity to satisfactorily and safely accept the additional traffic generated by the development. Council disputes this statement and argues that narrow pavements with low design speed characteristics and low background traffic volumes are likely to present a number road safety issues unless adequate consideration is given to how the likely users are going to mix with each other safely. There is a need to address road widths over crests and around curves as well as install additional signage to ensure motorists are aware of the changing traffic conditions that they are likely to encounter.

The EA continues on to discuss other road issues in two categories. Comments in these areas are categorised similarly and are as follows:

i) Over-mass and over-dimension vehicles – These will be infrequent and controlled by RTA, NSW Police and Upper Lachlan Shire Council permits. The routes proposed will be along the ULSC Regional Road network which is an asset that is Council property. Council must be consulted in developing the routes to be used as it is the owner of the assets which are lightly constructed pavements. These pavements are suitable for their present use, but are generally not capable of carrying the additional loads proposed without damage. Council is also concerned that there a number of old culverts along the roads that will need assessment to determine what strengthening works and or widening works are required to enable them to safely carry the proposed loads. The capacity of the rail overbridge in Gunning needs to be assessed, as it may not be able to carry either the over-mass vehicles or the repetitive delivery traffic loadings.

ii) Routine deliveries of building materials including concrete, steel products, gravel, aggregates and water - Council experience with other similar developments indicates that this category of transport has the potential to create far more damage to the road network than any other activity. Concrete trucks in particular cause significant damage due to their high frequency of deliveries, maximum axle load utilisation and suspension characteristics. The lightly trafficked roads will definitely not cope with the additional loading and significant damage is to be expected to be caused by the deliveries associated with the project. This will be further exacerbated if the construction work continues during wet weather. The developer must enter into an

agreement with Council (including bonding of repair funds) to ensure that the roads are returned to their present condition (or better) post project. There is also a need to establish a mechanism to ensure timely repair of any pavement failures that occur during the construction phase. This is to ensure the safety of all road users.

The assessment and definition of all preparatory and remedial works will be difficult as the developer intends to stage the project into at least two parts. Should these parts be separated by more than several months, the Dalton community will rightly expect that the repairs works will need to be completed at the end of each stage.

- **Urban Road Issues**

The EA fails to address urban safety issues at all. This is of paramount importance as particular attention needs to be paid to the selection of routes within the urban areas of Gunning and Dalton. Both townships have vulnerable facilities such as schools and preschools to deal with as well as lightly constructed pavements to consider. The roads surrounding the northern part of Dalton are also used by the community as walking trails in their pursuit of improved health and fitness. Separation of pedestrians from heavy traffic needs to be considered. Traffic using the unsealed roads in the vicinity of Dalton village will also create a considerable dust nuisance for residents. The community has an expectation that the developer will reconstruct and seal the roads involved to council's specifications.

- **Community Enhancement Program**

The EA fails to recognise the existence of Council's Development Control Plan, in which Council, at the time of exhibition of this project, has endorsed Part 3 Submitting a Development Application – Sections 3.17 Community Enhancement Program and Appendix B – Power Station Planning Agreement of Upper Lachlan Development Control Plan 2010. The EA makes no mention of its corporate responsibility to the immediate area other than a motherhood statement of creating economic benefits both for the state of NSW and AGL. Therefore, a condition requiring the proponent to provide a contribution in accordance with Section 3.17 of the Upper Lachlan Development Control Plan 2010 should be included in the determination if approved.

For any further information or clarification please contact Council's Environment and Planning Section, during office hours.

Yours faithfully

Tina Dodson
Director Environment and Planning
for
J K Bell
General Manager
Upper Lachlan Shire Council

19998

(Name Withheld), of Dalton, NSW, made the following submission on the project:

Objects to the project

“Informal discussions with real estate agents reveal an expectation of a 25% to 30% depreciation of property values in the Dalton area due to the perceived hazards associated with the Dalton Power Project.
As AGL intends to make a profit for their shareholders from this venture the residents of Dalton expect to receive appropriate and realistic compensation from AGL for the devaluing of their property.”

20000

(Name Withheld), of Dalton, NSW, made the following submission on the project:

Objects to the project

“Seismologists from Geoscience Australia and the Australian National University predict that the Dalton-Gunning area is due for a very large earthquake.
The area has more earthquakes than anywhere else in the country which led to Geoscience Australia maintaining a long term seismic station at Dalton.
Has AGL factored an earthquake scenario into the Dalton Power Project and did they consult with Geoscience Australia?
Geoscience Australia doesn’t appear to be mentioned in their “Stakeholder” list in Chapter 6 Table 6-1.”

20002

(Name Withheld), of Dalton, NSW, made the following submission on the project:

Objects to the project

"Formaldehyde is bad enough, however there doesn't appear to be any reference to the carcinogens toluene and benzene that an AGL representative confirmed would be present in the exhaust plume.
Or do they come under "particulate matter"?

Quoting from the NSW Government Health bulletin [14 August 2011] regarding the recent Stockton Orica chemical leak.

"Stockton chromium results confirm no health risk to residents"

However, the same document then proceeds to advise residents to take the following precautions [in spite of it being considered safe]:

"Don't drink water from rain water tanks. These tanks should be emptied onto the lawn or down the drain."
"Don't eat home grown leafy vegetables or fruits."
"Wash hands before eating or smoking after being outside [this is also a good lifetime habit]."

The concern is that combustion by-products present in the exhaust plume will fall-out and accumulate on domestic roofs from where this material will then be washed into rain water tanks where it will be concentrated posing a significant health risk to residents of Dalton and Gunning, as acknowledged in the above example.

Also, pasture and fruit and vegetable crops will also be contaminated, again, as acknowledged in the above example.

Did AGL consider a site that did not impact on the population? For example, The Wheeo Road area 10 km to the north east of the present site?
The power lines pass through this area and it would be necessary to increase the gas line another 8km. Origin Energy is prepared to run a 30km branch line to their Kerrawary Power Station.

The advantages of the alternative site are that the exhaust plume will have little or no health impact on Dalton or Gunning and the construction traffic passes up the Crookwell Road thereby avoiding Gunning altogether"

20004

(Name Withheld), of Dalton, NSW, made the following submission on the project:

Objects to the project

"Due to the high risk of hazardous chemical fallout from the exhaust plume from the Dalton Energy Project we request that the contaminant levels be monitored.
This would be performed by an independent agency and financed by AGL.
The monitoring agency would be rotated periodically and the programme would include testing levels of contamination in domestic rain water tanks in Dalton and Gunning.

This would be performed before the Dalton Power Project was commenced to establish a base line and then every 6 months thereafter.
The results, in plain English, would be published in the public domain.
In the event of any contamination being found, the station will cease operating until the problem rectified."

20016

Julian Edgar, of Dalton, NSW, made the following submission on the project:

Comments on this project

"I have a number of concerns regarding the project.

1) The modelled air emissions appear to be benchmarked against maximum regulatory requirements, rather than being assessed within the context of levels of noxious gases in the existing Dalton environment.

Without modelling based on the existing environmental levels of emissions, the magnitude of the negative impact of the power station on the air quality of the local environment is unknown.

2) The proportion of time that the power station will run appears to be determined solely by economic factors (eg the wholesale price of electricity) rather than technical factors.

Given the very great likelihood that economic factors relating to electricity generation (especially those pertaining to the ongoing use of coal-powered stations) will change, it seems likely that the power station will potentially run for a far greater proportion of the time than indicated in the EA.

I would suggest that regulatory or legislative limitations on the power station operating hours per annum would provide certainty in this regard.

3) The requirements for water, especially process water, appear to poorly addressed within the EA. It is stated that ([tankers are] "currently the only guaranteed water supply" and a "large number of [tanker] trips [will be] required per year" but then in another part of the EA it is stated: "It is assumed that the Facility would not be supplied entirely by trucking water".

Furthermore, process water modelling is based on a 5 per cent use and the operation of the power station as a whole is based on 15 per cent use.

Given the economic implications of using process water for improved turbine efficiency and uncertainty as to how many hours a year the power station would actually operate, the reliance on trucking alone as a water supply appears problematic. Such an approach potentially represents a major local environmental impact.

4) The impact of increased traffic flows appear to be based on maximum noise levels that occur, rather than the increased frequency of those noise levels.

Especially given the doubt about the implementation of trucks for process water supply, it appears that the real world impact of the increased traffic will be substantial."

20019

(Name Withheld), of Dalton, NSW, made the following submission on the project:

Objects to this project

“The project as currently proposed will have a significant ongoing negative impact on the area, particularly in regards to water.

As discussed with AGL staff at a local meeting, there is currently no site water available. They have indicated they will not use water from the Lachlan River (which is only now recovering from the last drought). They have indicated they may pipe water from Gunning (10km away), but Gunning's water supply is also limited. They would like to drill to assess the potential for bore water - but the local bore water is not adequate for machinery due to high mineral contamination. Also during the drought, the bores were drying out, so the option of bore water is by no means a stable proposition. The only option left is to truck the water in, which will mean a minimum of 1100 trucks a year (based on AGL's own conservative estimate of requiring 20 megalitres per year). This will be an ongoing negative impact on the local communities and the environment.

I also have concerns about the number of trees that will need to be removed along the route taken to bring in the large pieces of machinery for the project. The large trees, many of which are over 100 years old, provide homes for wildlife and wind protection for adjacent livestock. The road is over 10km long, with potentially hundreds of trees under threat. Replanting will be no compensation, given the age of the trees and the time required to repair the damage.

I also feel the Dalton town has been portrayed as insignificant by AGL, as the town is not mentioned on many of the maps and diagrams in their submissions.
This town has over 100 residents, a school, pub, service station, post office, 3 churches, and is a vibrant, active community, with a history dating back to the 1830's. This development is less than 3kms from the school. The trucks that will service the site during construction, and after, will pass the cricket ground, where my children get off the school bus.

This project would be suited to an industrial area closer to a larger population, so the peak power produced would be provided closest to where it is needed, saving what would otherwise be lost in transmission from a more remote location such as Dalton.”

20022

Pat Robinson, of Dalton, NSW, made the following submission on the project:

Comments on the project

I refer to the Project Application, Environmental Assessment (EA) and information provided for the Dalton Power project proposal.

The Executive Summary (ES) to the Dalton EA states that the project approval is to construct and operate a gas turbine power plant up to a nominal 1500 mW capacity at Dalton, to be constructed in two stages which would involve the installation of up to six gas turbines, and that approval is sought for both stages of the project under the current proposal. The ES also states that the power station would operate in open cycle mode during time of peak electricity demand, typically for less than 15% of the year.

The detailed environmental assessments of noise and air quality state (variously) that the power station is expected to operate for up to 5% or 15% of the year. The environmental acceptability of the project is predicated on a maximum operation time of 15% of the year.

AGL have stated in their April 2011 Newsletter on the Dalton Power Project that 'It is predicted that over the next decade rising electricity demand will substantially increase the need for rapid response "peaking" power generation in NSW.' AGL have also stated publically at the 27 August Open day at Dalton Church hall that the Dalton power station will operate at any time when it is economic for them to do so. These statements indicate that there is a potential for AGL to operate the power plant in excess of the nominated maximum 15% of the year.

Point 1:

The Dalton EA estimated environmental impacts are based on a maximum operation time of up to 15%. The Conditions of Approval of the project should include a maximum operating time of 15% per year. AGL should also confirm the maximum operating time for both Stage 1 and Stage 2. Any exceedance of 15% should be subject to separate environmental assessment and Department of Planning approval.

In relation to Noise assessment, the ES to the EA states that the predicted noise impacts of the proposed development upon the nearest potentially affected noise sensitive receptor locations have been assessed with consideration of INP, EPA 1999, ECRTN, EPA 1999 and ICNG, DECC, 2009 guidelines.

The detailed specialist assessment of noise identifies the nearest potentially affected noise sensitive receptor locations (Table 2-1) as various rural residences, located between 2.3 to 5.7 km from the gas turbines. Six of the receptor locations chosen are substantially further than the distance of the entire village of Dalton (comprising a population of >100 people, a primary school, churches and various commercial premises (post office, hotel, service station) from the gas turbines. These receptor locations cannot be considered to be representative of Dalton residences.

In relation to the INP assessment, the ES notes that during operation of the power station, noise exceedances above the INP (low frequency) allowable levels are expected at three receptor locations very close to the village. The noise simulation demonstrated by AGL on 26th and 27th August 2011 was based on estimates from the noise modelling that noise level contributions from the power plant operation, of 32 dB or higher, are expected at various locations on the farthest side of the village from the gas turbines.

The ECRTN assessment of off-site traffic noise did not consider the village of Dalton, including residences adjoining the main road from Gunning, which will be used for all construction traffic movements. The noise sensitive receptor locations selected for the ECRTN assessment, Location D in Dalton, and various sites in Gunning, cannot be considered representative of Dalton as location D is further from access roads than other Dalton residences, and the selected locations in Gunning were affected by local and highway traffic noise, whereas not the case for Dalton.

Point 2: Uncertainties surround the potential noise impacts on Dalton village of construction and operation of the power station, due to the sensitive receptor locations selected not being representative of all village residences, demonstrated exceedances of INP limits, and the inherent limitations of modelling in accurate prediction of actual noise levels.

AGL should commit to, and be required by the Conditions of Approval of the project, at the commencement of both Stages 1 and 2 of the project, to confirm under normal operation the noise emission performance of the power plant, and to perform ongoing noise monitoring during the life of the power station, consistent with NSW INP Noise Policy (EPA, 2000). Appropriate remedial measures should be identified and implemented in the event of exceedances of allowable limits.

AGL should commit to strong community information, consultation, involvement and complaints procedures, and implementation of remedial measures in the event of exceedances, consistent with the statement in the noise assessment that noise impacts of the proposed construction and operation of the plant should not degrade the existing acoustic environment nor create annoyance to residents.

The EA makes extensive reference to the AGL NSW Leafs Gully gas Turbine Power Station – Director General's Report and project Approval issued by NSW Department of Planning. It is noted that the Leafs Gully project is for a two unit gas turbine power station with a maximum capacity of 300mW. The Approval limits operation of the plant to a maximum of 15% of the year and any exceedances of that capacity requires approval by the appropriate authorities. The Summary of mitigation measures and commitments for Leafs gully includes extensive and specific mitigation measures to be implemented to prevent or minimise any impacts that may arise from construction, commissioning and operation of the plant.

Also of relevance is the approval of a Gas-fired Power Station, Uranquinty Cross Road, Uranquinty, Wagga Wagga, NSW comprising construction and operation of a 600mW gas-fired power station. Stringent conditions have been set on the approval of this project including meteorological and air quality monitoring, air quality performance verification, noise and water quality monitoring, and auditing.

The proposed AGL Dalton power station is for up to six gas turbines with a maximum capacity of 1500 mW. The size of this development greatly exceeds any gas-fired power station previously approved or planned in Australia. The EA states that the power station is expected to contribute up

to 1% of the total NSW NOx pollutants once in operation. The power station also has an expected operation life of up to 40 years. The Draft Statement of commitments notes that a CEMP and OEMP will be prepared for the project however the proposed environmental safeguards and commitments around these are quite minimal in a number of areas.

Under Air Quality it provides for review of assumptions and emission estimates during the design stage and states that should these increase then the modelling would be revised to meet the standards, however no specific plant design criteria are identified to address this. Dalton and surrounds does not have any air pollution at present however the power station will contribute a massive amount of pollutants to the air, including carcinogens such as formaldehyde and benzene. The EA has not stated where these pollutants will deposit and impact. AGL should state where the pollutants will deposit, and what concentrations are expected in air, soils and water. The cumulative

effects of 40 years exposure to these pollutants should also be quantified. NOx emissions should also be measured throughout operation of the plant, using a Constant Emissions Monitoring System (CEMS).

It is noted that plant restoration and retrofit improvements are identified under Greenhouse Gas Emission however retrofit options are only considered if cost effective. AGL should commit to maintenance of all plant to design condition for the lifetime of the power station and implementation of all available state of technology retrofitting options.

No specific safeguards are identified to minimise dust particulates during construction, from use of trucks on the unsealed access roads surrounding Dalton village. As construction is projected to take four years (two years each for Stages 1 & 2), this should be addressed by appropriate remedial measures such as watering the roads or sealing them, and implementation of speed limits.

The noise mitigation measures and draft commitments proposed for the operation of the power station are minimal, given the size of the development, its proximity to Dalton village and potential for exceedance of noise limits and low frequency noise. AGL should commit to additional mitigation to be incorporated during the detailed design stage such as construction of sound barriers, inclusion of additional silencers, use of the existing topography to relocate/de-cluster plant and processes. Incorporation of these measures at design stage may alleviate the need for retrofit or noise mitigation measures should noise complaints arise following commissioning of the plant.

Point 3: The AGL Dalton Power Project for a 1500mW gas-fired power station is a major industrial development, which will impact the community of Dalton for a very long time. AGL should commit to specific plant design features to significantly reduce, monitor and if possible eliminate hazardous pollutants and degradation of the existing rural acoustic environment. NOx emissions should be measured throughout the lifetime of the plant, using a constant Emissions Monitoring System (CEMS).

20034

Anthony Walsh, of Collector, NSW, made the following submission on the project:

Objects to this project

“My property adjoins the site of the proposed power station. The turbines will be less than 500 metres from the edge of my property. While I don’t live on the property, it is mine (and my sisters).

Consultation from AGL has been extremely poor. I have not been contacted, beyond invitations to meet at community consultation days, and the AGL staff at the first of those meetings were unaware that I was the closest landowner to their proposed site. I understand they have been in contact on a regular basis with my parents and brother, but as the nearest land belongs to my sister and I, I expected to be contacted.

With the development of the Dalton TI am concerned that the land I own will now be effectively worthless - there is unlikely to be any interest from anyone in purchasing the land - should I be interested in selling. While it has some use as grazing land, its main benefit was its peace and quiet - and with at least one power turbine installed (and more planned) - that peace and quiet will be gone forever.

In addition, I am concerned about the lack of planning shown by AGL. Issues such as water use, and the source of that water, have not been addressed to my satisfaction. AGL staff at consultation events have not been able to provide a suitable level of detail on how much water would be required, or where that water would come from.

There has been a lack of transparency about future plans for the site. While it is currently advertised as an off-peak power generation facility, the fact that there are plans for additional capacity suggests that AGL have a belief that they will be able to increase the power station's size and noise envelope in the future to meet the growing requirement for power.

In addition, AGL has been careful not to make any commitment to local owners or communities on what it would provide to them in the way of compensation. This contrasts very poorly with Transfield Energy and the planned Collector Windfarm. Transfield has been up front that it will make a substantial amount of funding available to the local community - In its February 2011, Collector Wind Farm Community Newsletter, Transfield noted:

> As part of our commitment to the local community, Transfield Services is proposing to establish a Community Investment Fund and contribute approximately $180,000 to the fund each year.

AGL has done nothing of this sort - the website contains platitudes about a community charter.

Under Section 94 of the ENVIRONMENTAL PLANNING AND ASSESSMENT

ACT 1979, Contribution towards provision or improvement of amenities or services, the Act states:

> the consent authority…may grant development consent subject to a condition requiring ... the payment of a monetary contribution.

What is AGL's plan in this regard?

Overall, I think AGL has done very poorly - its consultation has been limited, it hasnt sought to speak to me - its nearest neighbour - and it has not provided any certainty to reduce my concerns.”

20038

Kath Vivas, of Self-employed, made the following submission on the project:

Comments on the project

We have three main concerns about the impact of AGL's proposed power station on our

small rural community.

1. Air quality

- Proper estimations of emissions from the proposed plant should be measured at several sites within Dalton, including the primary school, and not at distant air monitoring stations.
- Emissions must be adequately monitored every day for the life of the proposed power station.
- Plans must be in place for guaranteed action to reduce emission levels if the emission levels approach levels unacceptable for human health in the future.

2. Water supply

- AGL must consider installing sufficient surfaces and tanks to harvest rainwater as the only sustainable option. Water recycling must also be considered. Using the Dalton groundwater supply without complete understanding of its full extent and the impacts of over-use is irresponsible and environmentally unsound.

3. Traffic

The reliance on trucks to cart water will cause excessive dust, noise and traffic hazards in this currently quiet village. Even one truck travelling the dirt Loop Road around the village, if winds are blowing south and west, sends dust over the entire town. There are several residences adjacent to this road that will be permanently blanketed in dust with the amount of truck movements suggested in the EA.

PROPOSED AGL DALTON POWER PROJECT

SUBMISSION ADDRESSING THE ENVIRONMENTAL ASSESSMENT

We are rate-paying residents of the Dalton village. This document outlines our submissions with respect to the Environmental Assessment (EA) prepared by URS on behalf of AGL for the proposed Dalton gas-fired power project.

1. GENERAL INADEQUACY OF THE EA

The first point that must be made with respect to this EA is its inadequacy in terms of the objectives it is required to achieve. These objectives, as outlined by the Proponent (EA p1-9) include "…to provide the NSW Minister for Planning and Infrastructure with sufficient information to determine the environmental impacts and benefits of the Dalton Power Project", "…to provide the Commonwealth Minister for Sustainability, Environment, Water, Population and Communities with sufficient information to determine the environmental impacts and benefits of the Dalton Power Project", and "…to inform the community about the Dalton Power Project".

It is submitted that the EA, in its lack of specificity and detail as to what is actually proposed, fails to satisfy these requirements. The Proponent has not clearly identified nor specified, amongst many other things:

- the type of turbines to be installed. There may be "between two to four "E" class turbines… or two to three "F" class turbines"… (EA p1-1). This has serious implications for the quantity and quality of water required for the "efficient" operation of the facility.

- any consistent detail as to the operational time of the proposed project. This is variously stated as "…typically operate for 15% of each year, with the potential for more extended operation" (EA p1-1); "15% of the year to allow for rare and extreme events[1]… reasonable peak run time of 5% of the year…" (EA p14-8); or "approximately 3% of the year…" (EA p9-12). An example of the issues raised by the lack of the Proponent's commitment to the operational time of the project is identified on EA p9-12, where the Proponent states that "… large uncertainties are associated with the potential emissions over the project lifetime."

  In the absence of any water-use data relating to operation in excess of 5% of the year, it is submitted that the Proponent could not be applying for approval to operate the plant for anything in excess of that limit. An application for operations in excess of 5% must necessarily provide the relevant ministers with "…sufficient information to determine the environmental impacts…" of operating at that level (EA p1-9).

[1] "rare and extreme events" are not defined or explained in the EA.

- how water will be sourced for the project. The ability "to demonstrate that an adequate and secure water supply is available for the life of the project" is a clear and unequivocal requirement of the Director General and has not been satisfied.

  If ground water is to be used, this will have serious implications for others dependent upon that supply for domestic, business or agricultural purposes. It could also have potential consequences for the Dalton village water supply, which relies on groundwater. If water is to be trucked in, traffic implications arise for local roads as well as for the towns of Gunning and Dalton. There will also be greenhouse gas emission implications from this method of sourcing water due to truck fuel usage, and these implications have not been addressed or included in the relevant assessments. These issues are further compounded by the fact that water requirements are assessed on the basis of a "reasonable peak runtime of 5% of the year" (EA p14-8), whereas the Proponent elsewhere states that the plant will "…typically operate for 15% of each year, with the potential for more extended operation" (EA p1-1).

- the routes to be taken and any associated road alterations or vegetation clearing necessary for the movement of these oversized loads. This will have serious consequences for the visual/aesthetic impact of the project; disruptions to access between Gunning and Dalton for education, childcare and commuters; and serious potential impacts on local flora and fauna.

- background, pre-development noise and air assessments for the site and for the village of Dalton or other "sensitive receptors". While levels at more heavily polluted sites may provide conservative assessments of the expected total emissions from the project, the absence of any data with respect to existing conditions does not provide "…sufficient information to determine the environmental impacts and benefits of the Dalton Power Project…". It also allows the Proponent to draw spurious conclusions such as "no adverse impacts on local air quality are expected as a result…" (EA p9-9). Undertaking these assessments is also critical for the purposes of assessing any subsequent applications to realise the "…potential for more extended operation" (EA p1-1).

- The Dalton Public School has not been considered as a "sensitive receptor". No background levels of pollutants or noise have been established against which impacts may be assessed. The students grow vegetables for their own consumption and rely on harvested rainwater for drinking and other requirements. Insufficient data has been provided regarding the cumulative effect of exposure to the relevant pollutants. Of particular concern is exposure to some of the hazardous air pollutants (HAPs) identified in the EA, such as polyaromatic hydrocarbons, which may be highly persistent and highly toxic, and have significant detrimental health consequences.

- The Proponent has identified in relation to the Dalton Potable Water Supply that "…water quality is of a relatively poor standard as drinking water…Previous water quality assessments indicate that water hardness and total dissolved solids (TDS) uniformly exceed the National Health and Medical Research Council (NH&MRC) Guideline values" (ES p 14-16). Many residents of Dalton, as well as all rural residents, rely upon harvested rainwater for drinking requirements. An assessment as to the effects of cumulative exposure to relevant pollutants produced by the proposed facility is required. Of particular concern is the treatment of pollutants as formaldehyde. While formaldehyde is not relatively persistent, some of the HAPs identified in the EA, such as polyaromatic hydrocarbons, may be highly persistent and highly toxic. These pollutants have potential to contaminate our drinking water supply and expose us to risks associated with cumulative exposure. It is submitted that satisfying the criteria with respect to formaldehyde does not adequately address the issues relating to all HAPS. Evidence is therefore required as to the potential for this harm and the mitigation measures to be taken.

- failure to address electricity transmission losses in considering alternatives to the proposed facility. Proximity to areas of peak demand was stated to be a relevant, indeed important, consideration in the EA for the Leaf's Gully Project, yet the losses in transmission between Dalton and the areas of peak demand are not identified nor discussed.

It is submitted that these inadequacies and inconsistencies, amongst others, in the EA are sufficiently serious as to fail to satisfy the Director General's Requirements and the EA's intended purpose. There is insufficient specificity to allow the relevant government departments to determine the project's environmental impacts. Further, the EA does not sufficiently inform the community about the project.

Despite the assertions of the Proponent, we will be seriously impacted by this project, should it proceed. Given that this is the only opportunity afforded to us to have our concerns addressed, it is unreasonable to expect that we should consider all possible alternatives and permutations in this EA, within the ridiculously short time-frame we have available. We have jobs and children and responsibilities. If the EA was complete, in that it stated, for example: "There will be 6 "F" class turbines, there will be no water, we will make significant changes to the road and remove all of the trees, air pollution will increase by x%, noise will increase by x%, there will be few if any jobs, your property would be expected to be de-valued ...", then we might have a chance of properly assessing and addressing the implications.

Furthermore, it is clearly a waste of government departments' time, and taxpayer funds, that these agencies should similarly be asked to make a decision based on this EA. In my and my partner's extensive experience of regulatory assessments, it is up to the Proponent to clearly specify that for which they are seeking approval, not for the government department to assess all of the options on behalf of the Proponent.

It is our submission that the EA is inadequate for the purpose for which it has been presented. We seek to have the decision as to its adequacy reconsidered, to have an EA presented in a form in which the issues are clearly identifiable, and to have an opportunity to properly assess and address these issues. Failing this, we seek to have the following issues addressed properly and obtain undertakings from the Proponent to provide the necessary information, to accept responsibility for the adverse impacts inherent in the proposal, and to commit to appropriate mitigation, remediation and compensation with respect to those impacts.

2. WATER

The Director General's Requirements specifically state that:

"The Proponent must be able to demonstrate that an adequate and secure water supply is available for the life of the project" (EA, p1-13). At best, the EA identifies "a number of potential water sources" (EA, p14-15) for which "approval is sought". This clearly does not satisfy the Director General's Requirements.

It is therefore essential that the following matters be determined and verified.

- The actual water requirement. The Proponent must specify the type and quantity of the turbines to be installed. The nature and extent of water-cooling with respect to the proposed configuration must be declared. It is irrelevant that "…(i)f high fogging is not included, the overall water demand… would be substantially reduced…" (EA p14-9), if it is intended to be used because of "efficiency" reasons. More information is also required as to the air quality implications of not applying water in the process. The US EPA site provides a document that states, in relation to gas-fired turbines:

"Water or steam injection is a technology that has been demonstrated to effectively suppress NOX emissions from gas turbines. The effect of steam and water injection is to increase the thermal mass by dilution and thereby reduce peak temperatures in the flame zone. With water injection, there is an additional benefit of absorbing the latent heat of vaporization from the flame zone. Water or steam is typically injected at a water-to-fuel weight ratio of less than one.
Depending on the initial NOX levels, such rates of injection may reduce NOX by 60 percent or higher. Water or steam injection is usually accompanied by an efficiency penalty (typically 2 to 3 percent) but an increase in power output (typically 5 to 6 percent). The increased power output results from the increased mass flow required to maintain turbine inlet temperature at manufacturer's specifications. Both CO and VOC emissions are increased by water injection, with the level of CO and VOC increases dependent on the amount of water injection." (www.epa.gov/ttnchie1/ap42/ch03/final/c03s01.pdf, 3.1.4.1 Accessed on 10/09/2011)

The Proponent has not adequately addressed this issue, and the relevant departments may impose in any approval, an obligation to use additional

water to achieve "Best Available Control Technology (BACT)" (EA p1-13 Table 1-1, Director General's Requirements).

The actual water requirement will also necessarily depend upon the operational time of the facility. The EA assumes an operational time of 5% of the year. Elsewhere in the EA, the Proponent states that the facility will "…typically operate for 15% of each year, with the potential for more extended operation" (EA p1-1). In the absence of any data relating to operation in excess of 5% of the year, it is submitted that the Proponent could not be applying for approval to operate the plant for anything in excess of that limit. An application for operations in excess of 5% must necessarily provide the relevant ministers with "…sufficient information to determine the environmental impacts…" of operating at that level (EA p1-9).

- The intended source of water. If groundwater is being accessed and used, the impact of this on other users, including the Dalton Village, should be adequately addressed. During the recent drought years, bore yields were not dependable and could not be considered an "adequate and secure water supply".

  If water is to be trucked in, assessments need to be made as to the impacts of this on our roads and towns. As ratepayers, we cannot be expected to be exposed to any liability for maintaining and repairing roads for the benefit of a private, commercial organisation.

  The trucking of large quantities of water will also necessitate additional water requirements for adequate dust suppression. This has not been adequately addressed in the EA. Estimates in the EA allow for one water truck per day during the construction stage (EA Table 4-2, Appendix F) and none during the operational stage. Given the projected increase in traffic and "…the potential for dust to be generated due to the excavation and handling of soils, site grading activities and vehicle movements…", one water truck per day is patently insufficient to provide adequate dust suppression on both the dirt roads and a 27-ha construction site.

Given the above, it is submitted that the following undertakings must be required of the Proponent.

- The provision of specifications regarding configuration, cooling requirements and maximum operating time of the facility, in order to quantify the water required.

- Contractual agreements with respect to the supply of water.

3. AIR

"No site-specific background monitoring data was available for this assessment" (EA p9-4). Therefore, the Proponent has adopted an assessment that it states as "…unsuitable for predicting the actual scale of cumulative air quality impacts of the proposed project" (EA p9-4). Despite this, the Proponent concludes in the EA that "…no adverse impacts on local air quality are expected as a result…" of this project (EA p9-9).

The EA states at EA 9.5.2 that, "(i)n order to assess the cumulative impacts of the plant emissions on the local air quality, background concentrations of the criteria pollutants were obtained from the relevant OEH and TMS monitoring stations." These concentrations allow comparison with the areas from which they were derived and have no bearing on the impact on our air quality. The predicted NO_2 emissions from the proposed project are 166% of the background levels recorded in Monash ACT, which the Proponent states to be "…considered 'generally representative of the upper bound' of pollution concentrations for the region…" (EA p9-4). It is submitted that even compared to the Monash data, the predicted emissions would represent a significant adverse impact on air quality. It must be implied that site-specific data would demonstrate an even greater significant adverse impact.

It is essential that the Proponent provide pre-development background monitoring data. The true impact of this proposal cannot be assessed without it. Further, without such data, any subsequent applications to operate beyond the 5% annual threshold sought by this application should require an assessment of the impacts in the context of the pre-development environment.

The "monitoring" proposed by the EA will be meaningless without appropriate scientifically valid controls. To suggest otherwise is poor science.

It is not clear from the EA as to the assumptions made with respect to the application of water in the generation process when assessing the air-quality impacts. This water use is described in the EA as "discretionary" and would affect "…merely the efficiency of that generation" (EA p14-8). Although it is mentioned that "(p)rocess water also has the effect of marginally reducing the carbon dioxide (CO_2) emissions per unit power generated (~2%)" (EA p 14-8), no further consideration is given to this matter. On a quick Google search (quick because of the limited time available for critical examination of these issues), I found the following US EPA document, which states, in relation to gas-fired turbines:

"Water or steam injection is a technology that has been demonstrated to effectively suppress NOX emissions from gas turbines. The effect of steam and water injection is to increase the thermal mass by dilution and thereby reduce peak temperatures in the flame zone. With water injection, there is an additional benefit of absorbing the latent heat of vaporization from the flame zone. Water or steam is typically injected at a water-to-fuel weight ratio of less than one.
Depending on the initial NOX levels, such rates of injection may reduce NOX by 60 percent or higher. Water or steam injection is usually accompanied by an efficiency penalty (typically 2 to 3 percent) but an increase in power output (typically 5 to 6 percent). The increased power output results from the

increased mass flow required to maintain turbine inlet temperature at manufacturer's specifications. Both CO and VOC emissions are increased by water injection, with the level of CO and VOC increases dependent on the amount of water injection." (www.epa.gov/ttnchie1/ap42/ch03/final/c03s01.pdf, 3.1.4.1 Accessed on 10/09/2011)

We don't have time to examine the implications of this, but hope that the Proponent will be required to address emission mitigation measures in more detail.

In addition to the issues addressed by the Proponent, the Director General also requires that the EA address "…any significant up or downstream emissions" (EA Table 1-1 'Greenhouse Gases'). Given the high volumes of road traffic outlined and the possibility of large numbers of water trucks being required, it is submitted that the relevant emissions would be significant. This should be addressed, quantified and made available.

Given the above, it is submitted that the following undertakings must be required of the Proponent.

- Conducting investigations to determine the background pre-development levels of relevant contaminants to enable a determination of the predicted "…actual scale of cumulative air quality impacts of the proposed project", and for the purposes of effectively assessing any subsequent proposal for extending operations beyond the 5% annual operating time sought by the Proponent under this application..

- The submission of further information regarding the consequences for emissions of not using water in the electricity generation process.

- The provision of data regarding the greenhouse gas emissions likely to result from the greatly increased traffic flows predicted during both the construction and operational stages.

4. NOISE

The EA is also deficient with respect to noise. No assessment of either the existing noise levels, nor the predicted noise levels from the project, have been provided for the village of Dalton. It is essential that the Proponent provide pre-development background monitoring data. The true impact of this proposal cannot be assessed without it. Further, without such data, any subsequent applications to operate beyond the 5% annual threshold sought by this application should require an assessment of the impacts in the context of the pre-development environment.

When low-frequency noise impacts were found by the Proponent to exceed the criterion, an alternative assessment was proposed. Such an approach was rejected by the Department of Energy and Climate Change (DECC) when it was proposed for use in the Proponents EA for the Leafs Gully Gas Turbine Power