4. Consultation and identification of environmental issues

This chapter describes the extent of liaison and consultation with government and the community, identifies the issues raised during that consultation and outlines how those issues were addressed in the Environmental Assessment.

4.1 Stakeholder consultation

4.1.1 Authority consultation

All relevant government authorities were consulted throughout the Environmental Assessment (EA) process, enabling the key authority issues to be identified and the planning and approval process to be refined.

The authority consultation program commenced with an initial briefing meeting held with the Department of Planning on 13 February 2007. TRUenergy submitted an initial project application for an OCGT power station for which a Planning Focus Meeting which was held on-site on 19 April 2007.

Representatives of the following organisations attended the Planning Focus Meeting:

- Department of Planning (DoP);
- Department of Water and Energy (formerly Department of Energy, Utilities and Sustainability);
- Department of Environment and Climate Change (formerly Department of Environment and Conservation and Department of Natural Resources);
- Wollongong City Council;
- Lake Illawarra Authority; and
- NSW Premiers Department.

Shellharbour City Council and the Civil Aviation Safety Authority were also invited but representatives were unable to attend.

Following further detailed market analysis, TRUenergy halted its original application and resubmitted an application for the construction and operation of a gas turbine power station consisting of either an OCGT or CCGT. The DoP confirmed that the proposed development is of a kind described in Schedule 1 of the State Environmental Planning Policy (Major Projects) 2005 for which Part 3A of the EP&A Act applies on 15 September 2007. The agencies listed above were then requested to provide revised requirements for the EA. This correspondence formed the basis for the Director-General's Requirements for the EA issued by DoP on 31 October 2007. The Director-

General's requirements are included in full in **Appendix A**. A summary of the requirements and checklist of where each requirement is addressed in the EA is provided in **Table 4-1.**

Table 4-1: Checklist of Director-General's Requirements

Requirement	Chapter of EA
General Requirements	
The Environmental Assessment (EA) must be prepared to a high technical and scientific standard and must include:	
▪ An executive summary.	Executive Summary
▪ Consideration of any relevant statutory provisions, environmental planning instruments, strategies and guidelines.	Chapter 2
▪ A description of the proposal, including construction, operation and staging. All infrastructure must be clearly identified and described in terms of location, construction/operation, size and scale.	Chapter 5
▪ An assessment of the environmental impacts of the project, with particular focus on the key assessment requirements specified below.	Chapters 7 and 8
▪ Justification for undertaking the project with consideration of the benefits and impacts of the proposal.	Chapter 10
▪ A draft Statement of Commitments detailing measures for environmental mitigation, management and monitoring for the project.	Chapter 9
▪ Certification by the author of the EA that the information contained in the Assessment is neither false nor misleading	Front of document
Key Assessment Requirements	
The Environmental Assessment must include assessment of the following key issues:	
▪ **Strategic Justification** - strategic assessment of the need, scale, scope and location for the project including an analysis of the suitability of the proposed site with respect to potential land use.	Chapter 3
▪ **Greenhouse Gas Generation** – comprehensive greenhouse gas assessment, incorporating a quantitative model showing the tonnages of each greenhouse gas produced (directly and indirectly from the development) on the basis of each unit of production (MWh); total annual emissions; project lifetime; and for each fuel (natural gas and diesel).	Chapters 7 & 8 Appendix D
▪ **Air Quality Impacts** – comprehensive air quality impact assessment prepared in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (EPA, 2005). Photochemical modelling must be provided.	Chapters 7 & 8 Appendices B and C
▪ **Noise Impacts** – noise impact assessment for the project, conducted in accordance with NSW *Industrial Noise Policy* (EPA, 2000) and criteria in Chapter 171 of *the Environmental Noise Control Manual* (EPA, 2004).	Chapters 7 & 8 Appendix E
▪ **Water Impacts –** an assessment of potential water impacts should be prepared in consideration of and consistency with the Illawarra Regional Strategy (DoP, 2007), The Lake Illawarra Estuary Management Study and Strategic Plan (Lake Illawarra Authority, 2006), ANZECC (2000) Water Quality Guidelines and the NSW Coastal Policy 1997.	Chapters 7 & 8 Appendix G
▪ **Hazards and Risk Impacts** – screening of potential hazards on site (including new gas supply infrastructure) to determine the potential for off site impacts and any requirement for a Preliminary Hazard Analysis (PHA).	Chapters 7 & 8 Appendix F

▪ **General Environmental Risk Analysis** – an environmental risk analysis to identify potential environmental impacts associated with the project (construction and operation), proposed mitigation measures and potentially significant residual environmental impacts after the application of proposed mitigation measures.	Chapter 6, 7 and 8
Consultation Requirements	
You must undertake an appropriate and justified level of consultation with the following parties during the preparation of the EA:	
▪ NSW Department of Environment and Climate Change	Chapter 4
▪ NSW Department of Water and Energy	Chapter 4
▪ Lake Illawarra Authority	Chapter 4
▪ Commonwealth Civil Aviation Safety Authority	Chapter 4
▪ Airservices Australia	Chapter 4
▪ Wollongong City Council	Chapter 4
▪ Shellharbour Council	Chapter 4
▪ NSW Department of Primary Industries	Chapter 4
▪ The local community	Chapter 4 and Appendix A
The EA must clearly indicate issues raised by stakeholders during consultation, and how those matters have been addressed in the EA.	Chapter 4

4.1.2 Additional stakeholder and authority consultation

In addition to the Planning Focus Meeting, further consultation was undertaken with various agencies to discuss specific issues. This included:

Civil Aviation Safety Authority (CASA)

Discussions were held with the CASA to discuss the methodology used for the plume rise assessment and preliminary results. The following issues were discussed:

- the assessment would be undertaken in accordance with CASA's Guidelines for Conducting Plume Rise Assessments (2004);
- the Air Pollution Model (TAPM) would be used in plume rise mode to analyse plume behaviour from the stacks; and
- consideration of the potential hazards that the vertical velocity from gas efflux present to the aviation activities in the surrounding region.

These issues have been addressed in **Chapter 7**, **Chapter 8** and **Appendix C**.

Department of Environment and Climate Change (DECC)

Ongoing consultation has been undertaken with DECC to generally discuss the air quality and surface water requirements for the project. The following issues were discussed:

- the assessment would be undertaken in accordance with the DECC's Approved Methods and Guidance for the Assessment of Air Pollutants from Stationary Sources;
- consideration of local and regional NOx (oxides of nitrogen) impacts using contemporaneous meteorological and background air quality data;
- consideration of local and regional photochemical smog impacts;
- the assessment would detail the NOx performance of the gas turbines and demonstrate compliance with the Clean Air Reg (2002);
- the assessment would investigate any NOx off-setting that may possibly be achieved by the project;
- the assessment would investigate adverse impacts from the discharge on the biological communities of Lake Illawarra;
- consideration of the effect of the discharge on adjacent seagrass beds in Lake Illawarra; and
- consideration of the Tallawarra Stage B cooling water discharge temperature in combination with the approved Tallawarra Stage A cooling water discharge temperature limits.

These issues have been addressed in **Chapter 7**, **Chapter 8** and **Appendix B**.

Other Stakeholders

In accordance with the Director General's requirements, TRUenergy also invited the NSW Department of Primary Industries and Airservices Australia to provide details of any specific requirements they required to be addressed in the environmental assessment. To date, no responses have been received from either the Department of Primary Industries or Airservices Australia.

4.2 Community consultation

The Tallawarra Lands Stage B community consultation process has been designed to complement the existing, on-going community feedback mechanisms that are currently in place for the Tallawarra Stage A CCGT power station development and Tallawarra Lands planning process.

These existing mechanisms include the Tallawarra Community Liaison Group (CLG) which was convened in 2004 and quarterly project newsletters.

4.2.1 Tallawarra community liaison group

Community consultation surrounding Stage B has been undertaken through the Tallawarra Community Liaison Group (CLG), which was established in 2004 as the principal community liaison mechanism for the Tallawarra Stage A CCGT power station implementation and the Tallawarra Lands planning process.

The group comprises representatives of local community groups and covers residents, environment, business, indigenous and recreational interests. The CLG meets every second month, on site at Tallawarra, to discuss development of the project, as well as any issues or concerns as they arise.

The following organisations are invited to attend the CLG meetings:

- Wollongong City Council;
- Shellharbour City Council;
- NSW Department of Environment and Climate Change;
- NSW Department of Planning;
- Lake Illawarra Authority;
- Department of Natural Resources;
- Integral Energy;
- Illawarra Local Aboriginal Land Council;
- Illawarra Catchment Management Committee;
- Illawarra Landcare;
- Duck Creek Catchment Community Group;
- Illawarra Chamber of Commerce;
- Dapto Chamber of Commerce;
- Neighbourhood Committee No.8;
- West Dapto Community Association;
- Illawarra Institute of Technology;
- University of Wollongong, Future World National Centre for Appropriate Technology;
- Healthy Cities Illawarra;
- The Scout Association of NSW;
- Illawarra Motoring Museum;
- The Illawarra Bird Observers Club Inc;
- The South Coast Conservation Society Cooperative Ltd;
- The Wilderness Society;
- TRUenergy leaseholders' representatives; and
- Concerned Residents of East Dapto.

The CLG is highly representative of the local community. CLG meetings provide a forum for TRUenergy to present project updates to the community representatives and for representatives to raise any issues or concerns arising from the developments occurring at Tallawarra. The CLG

provides detailed feedback on issues discussed at CLG meetings to the broader community. TRUenergy believes that the CLG is well regarded as a useful means for providing ongoing face-to-face communication between the company and the local community.

Wollongong City Council, Shellharbour Council, NSW Department of Planning, NSW Premiers Department, local Members of Parliament, government agencies and the Lake Illawarra Authority are regularly updated on the outcomes of the CLG meetings, including any concerns raised by CLG participants.

Discussion with the CLG regarding the proposed Tallawarra Stage B power station development was initiated in February 2007. The change of scope for the proposed Tallawarra Stage B development, whereby approval is sought for either a CCGT or an OCGT power station, was discussed at the CLG meetings held in October and December 2007.

Issues raised by the CLG

The following questions were raised at CLG meetings, regarding the proposed development (**Table 4-2**).

- **Table 4-2: Issues raised by the CLG**

Meeting	Question/Concern	Response
February 2007	Will Stage B provide the same number of jobs as Stage A?	The construction of Stage B will be smaller and therefore will not have the same requirements as Stage A. The final estimated number will be included in the environmental application process. However, it will result in a significant boost to local employment (refer to Chapter 5).
April 2007	Beyond compliance water quality and hazard containment (liquid fuel) should be demonstrated in Stage B.	The Environmental Assessment will undertake a full assessment of the necessary hazard containment and water quality control measures that will be required to implement Stage B (refer to Chapters 5 and 8).
	How will any acoustic impacts associated with Stage B on the nearby residential area be managed?	We plan to accommodate Stage B within a building and have undertaken studies regarding existing and anticipated noise levels associated with the plant. We are also looking at potential increases associated with the new plant and will review the acoustic controls accordingly. The existing plant is well within accepted noise levels, at existing residences.
June 2007	Does Tallawarra B have the capacity to operate more as the population grows?	Yes, but it would not necessarily be financially viable. Peaker plants are established as they are cheaper to build than a Tallawarra A CCGT type or another coal fired plant. They are not, however, as cost effective to operate on a full-time basis and generally do not provide baseline power.

August 2007	What is the proposed timeframe for starting up the plant? Would this be incorporated into the air quality assessment?	The current plant will take between one hour and two and a half hours when starting from being very cold (i.e. if it has been switched off for a number of days). The air pollution model considers all the relevant factors to produce the worst case modelling data (refer to Chapters 7, 8 and Appendix B).
	What would be the impacts of exceeding the DECC air quality limits?	Exceedence of the DECC air quality limits may lead to an increase in oxides of nitrogen (NOx) emitted from the site. NOx can impact on human respiratory function and the growth of plants (refer to Chapters 7, 8 and Appendix B).
	Would the baseline air quality data and an outline of the ongoing monitoring for the site be provided?	As part of the full air quality assessment provided in Appendix B, baseline data has been monitored and recorded. The ongoing air quality monitoring requirements of the site have also been detailed.
	What sort of risk has been considered as part of the Hazard and Risk Assessment? Were earth tremors considered?	The hazardous analysis conducted for the project identified a number of hazards that have the potential to impact adjacent offsite areas. The risk assessment has analysed extreme scenarios and primarily relates to gas pipeline incidents where the gas escapes and ignition results (refer to Chapters 7, 8 and Appendix F).
October 2007	Would the Tallawarra Stage A be online before either of the Tallawarra Stage B alternatives?	Tallawarra Stage A would be online in 2008. The Tallawarra Stage B development, irrespective of whether a CCGT or an OCGT is selected, would not be online before this date.
December 2007	Would the new power station include viewing platforms or be available for organised tour groups during its operations?	It is the intention of TRUenergy that the altered former bowling club building be used, among other things, to house information about the history of the area and the site, providing opportunities for local groups to learn more about the area and power station. There is likely to be enough space within the power station to accommodate small controlled group tours of the power station during the operational phase.
February 2008	What are the impacts on the lake of the additional power station?	The Tallawarra A CCGT will use lake water cooling by passing it directly through the condenser. The OCGT requires minimal cooling and utilise systems similar to a car radiator. In the Tallawarra B situation it is not possible to utilise the lake water in a once through cooling system due to possible impact on the lake under worst case conditions. However, a wet cooling tower using lake water for make - up would provide an effective and efficient cooling solution that studies have indicated would have little or no impact on the lake.
	Would TRUenergy seek separate approval for the preliminary works such as shed clearing?	This is the case and some approvals are in place already.
	How much asbestos is there in the area that will be demolished?	Should any asbestos be identified in that area the appropriate treatment works will be undertaken as was the case with Tallawarra A.
April 2008	Will any of the levels of NOx (as NO_2) demonstrated be perceptible as smell.	The stated levels are very low. They would not be perceptible as smell.

	Given that the model considered all population areas in the region, it would be useful to include a couple of local suburbs of particular relevance to the local community. The modelling results could be made more meaningful, and allay potential community concerns, if a comparison with typical air quality was shown in its charts. Was the analysis theoretical only or related to an existing power station?	The modelling is based on: ■ a very good understanding of local and regional emission levels, calibrated using real life monitoring data from the area; and ■ known output levels from similar power stations, and manufacturer guaranteed worst-case levels.
June 2008	What does Stage B entail?	A second power station of up to 400 MW. It could consist of a new plant similar to the Stage A Combined Cycle Gas Turbine system. Alternatively, it could comprise an Open Cycle gas turbine station which would have the capacity to form more of a peaking role. Each option has the ability to provide a different role with regard to the grid. Our final decision will be dependent upon understanding the future energy load within in NSW.
	What is the potential timing? Are there major differences in environmental impact of the two options [OCGT/CCGT]?	Timing of decision making is influenced by load growth, impacts of carbon trading scheme and related impacts on system. Both alternatives have been modelled for the Environmental Impact Assessment. Our extensive modelling to date indicates no major differences in terms of environmental impacts between the two options. The application is expected to go on exhibition later this year.
August 2008	Will Tallawarra A noise emissions and NOx levels be measured to confirm modelling predictions?	Yes, this will be carried out by Alstom. However the plant needs to achieve full load and normal operating status before this work can be completed. Part of the Stage B modelling process involved clarification that the original modelling for Stage A was verified and baseline data obtained.
October 2008 A presentation on Tallawarra B's part in Australia's low carbon future	-What happens at times when there is not enough wind for the wind farms to operate?	A typical wind farm has a capacity factor of 30-40%. Tallawarra can theoretically generate 99-100% of the time. A wind farm involves intermittent generation, as opposed to base load generation. Wind farms alone cannot solve the energy needs of Australia. They require back up from other sources at times when wind is not available.

An information night was held in December 2008 to inform local community and others about the Tallawarra projects, including Tallawarra A, the proposed Tallawarra B and the Tallwarra Lands Project.

4.2.2 Other community consultation mechanisms

In addition to regular meetings of the CLG, details of the Tallawarra Stage B power station proposal have been circulated within the local community via regular editions of the project newsletter. Future editions of the quarterly column in the Illawarra Mercury and Lake Times will also update the community regarding the progress of Tallawarra Stage B.

Quarterly project newsletter

The regular quarterly project newsletter is mailed to adjacent neighbourhoods to the north and south of the Tallawarra site. Details of TRUenergy's intention to investigate Stage B, the Stage B process and contacts for further information were provided in the April 2007 edition of the newsletter (refer to **Appendix A**). Future newsletters will continue to provide information on the progress of the Tallawarra development, including the progress of the Tallawarra Stage B proposal.

Quarterly columns in local papers

TRUenergy currently provides a regular column in the Illawarra Mercury and Lake Times local papers, on a quarterly basis. Future columns in these papers will continue to provide information on the progress of the Tallawarra development, including the progress of the Stage B proposal.