

17.1 Introduction

Economic impacts have been assessed, focusing on the direct and indirect economic impacts of the Project. Analysis was undertaken on the construction and ongoing operation of the power plant development, and is based on recent socio economic impact analysis for other AGL projects of a comparable scale. The assessment also includes a consideration of the social impact of the Project in terms of the impacts on local population and labour workforce.

As a result of the Project location, the following regions are the likely considered to be impacted by the Project and were the focus of socio-economic analysis:

- Upper Lachlan Statistical Local Area (SLA)
- South Eastern Statistical Division (SD);
- New South Wales; and
- Australia.

Dalton is the nearest population centre to the Project site, and is a small inland country town located in the Upper Lachlan Shire. Dalton is north of the Hume Highway that joins Sydney and Melbourne, and is located between Goulburn and Yass in south western New South Wales. Nearby towns are Cullerin, Gundaroo, Gunning, Yass, and Murrumbateman.

Economic impact analysis has been used to assess the effect of the proposal on the Australian economy level, which encompasses all local, state and national impacts. Economic impact analysis measures the total economic contribution of a project, infrastructure facility, business operation or industry on an economy. In this analysis, the total economic impact of the proposed plant development has been assessed at the construction and ongoing operations stages of development.

17.2 Existing Regional Socio-economic Conditions

The existing socio-economy environment of the Project area is examined in the following section. An understanding of the current situation provides a comparative basis for project impacts as it forms the basis for a 'without' proposed development scenario, which is supplemented by a 'with' development scenario addressed in later sections of this chapter.

17.2.1 Demography

Population

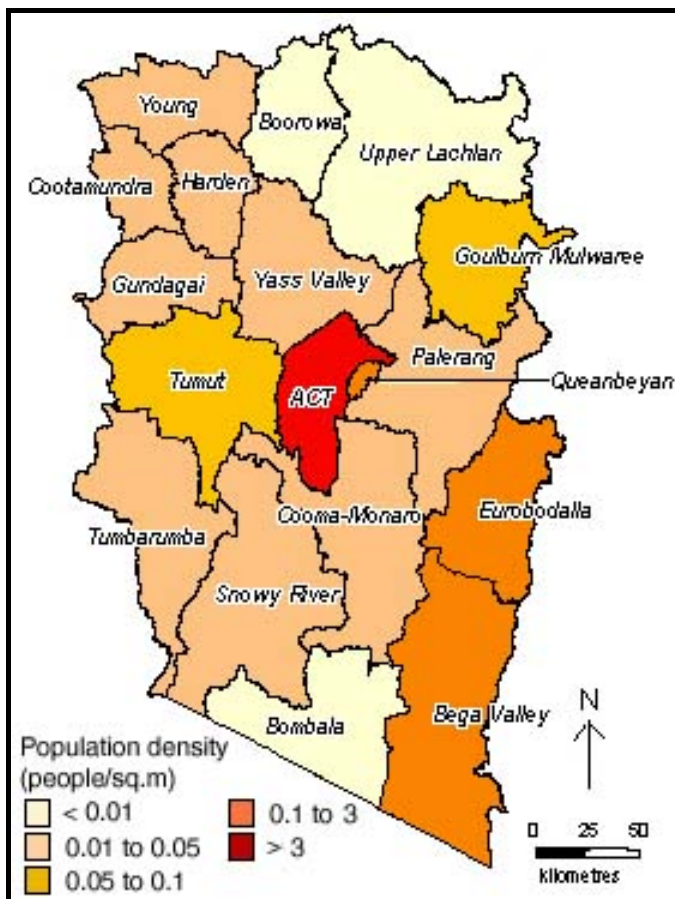
Local, regional, state and national population counts and projections for the areas surrounding the proposed Dalton Power Project are shown in **Table 17-1**. The populations for all regions are characterised by a projected pattern of growth continuing until 2026. The population projections for the Upper Lachlan Statistical Local Area (SLA) indicate a compound annual growth rate (CAGR) of 0.93% from 2001 to 2026. This is slightly lower than both the regional and state growth rates, of 1.09% and 1.07% respectively, and significantly lower than the national growth rate of 1.67%.

Table 17-1 Population and Projections

Area	2001 Actual	2006 Actual	2011 Forecast	2016 Forecast	2021 Forecast	2026 Forecast	CAGR
Upper Lachlan SLA	6,749	6,840	7,154	7,608	8,058	8,499	0.93%
South Eastern SD	200,000	211,190	220,900	234,900	248,800	262,400	1.09%
New South Wales	6,371,745	6,585,732	7,187,000	7,559,600	7,939,800	8,322,800	1.07%
Australia	18,972,350	20,061,651	22,447,400	24,422,700	26,571,820	28,723,000	1.67%

Source: ABS Statistics and Projections, NSW Planning Department Population Projections, URS Analysis

Population density



Source: SoE report 2004 Upper Lachlan

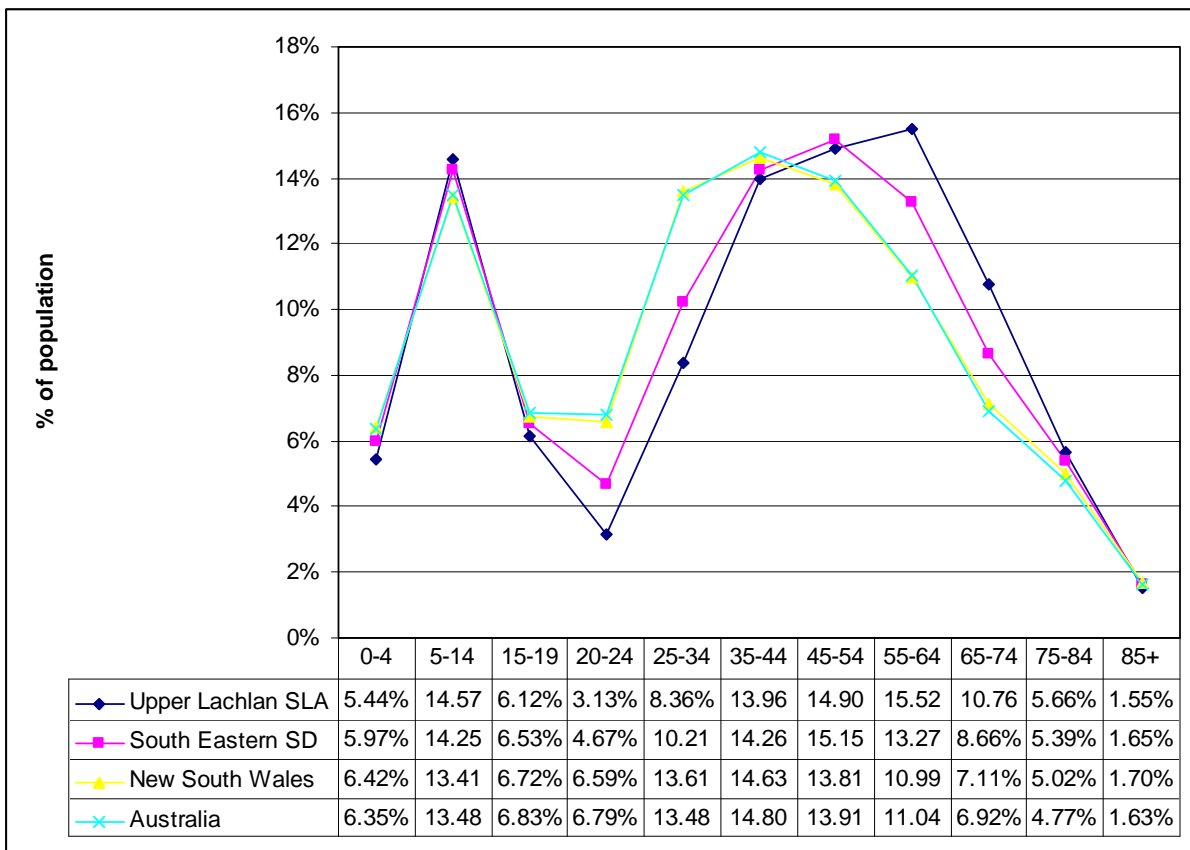
As expected for a rural council area with few townships, Upper Lachlan council area is sparsely populated. Preliminary estimated residential population at June 2004 was 7,621. Based on those land uses in the council area that are most likely to be populated (urban and agriculture), the calculated population density is around 0.01 persons per hectare (or one person for every 88.59 hectares) (SoE 2004).

Age Structure

The age structure of the Upper Lachlan SLA based on the 2006 ABS Census is shown in **Figure 17-1**. The largest proportion of the population is 'working age', between 15 - 64 years, with 62.01% of the population in Upper Lachlan being of working age. NSW and Australia respectively have 66.34 % and 66.85% of their population being of working age, which is slightly higher than in Upper Lachlan.

The Upper Lachlan SLA has a relatively higher proportion of residents above the age of 65, with 17.96% (compared to 13.83% in NSW and 13.32% in Australia). Also, the proportion of residents between the ages of 20 and 34 is significantly lower in Upper Lachlan, 11.5%, when compared to the state and national figures of 20.2% and 20.27%. This is indicative of young people moving away from rural areas, a common trend throughout Australia.

Figure 17-1 Age Structure (2006 Census)



Source: ABS Basic Community Profiles 2006, URS Analysis

17.2.2 Labour Force

In addition to the age structure discussed above, further analysis of the existing labour force situation is detailed in the following section.

Labour Force Status

The Upper Lachlan SLA has a labour force of 3,343 which is approximately 0.11% of NSW's total labour force. The Upper Lachlan SLA unemployment rate is 3.88%. This unemployment level is significantly lower than the state and national levels of 6.30% and 5.53% respectively. The unemployment rate in the projects greater region, South Eastern Statistical Division (SD), is 5.44%.

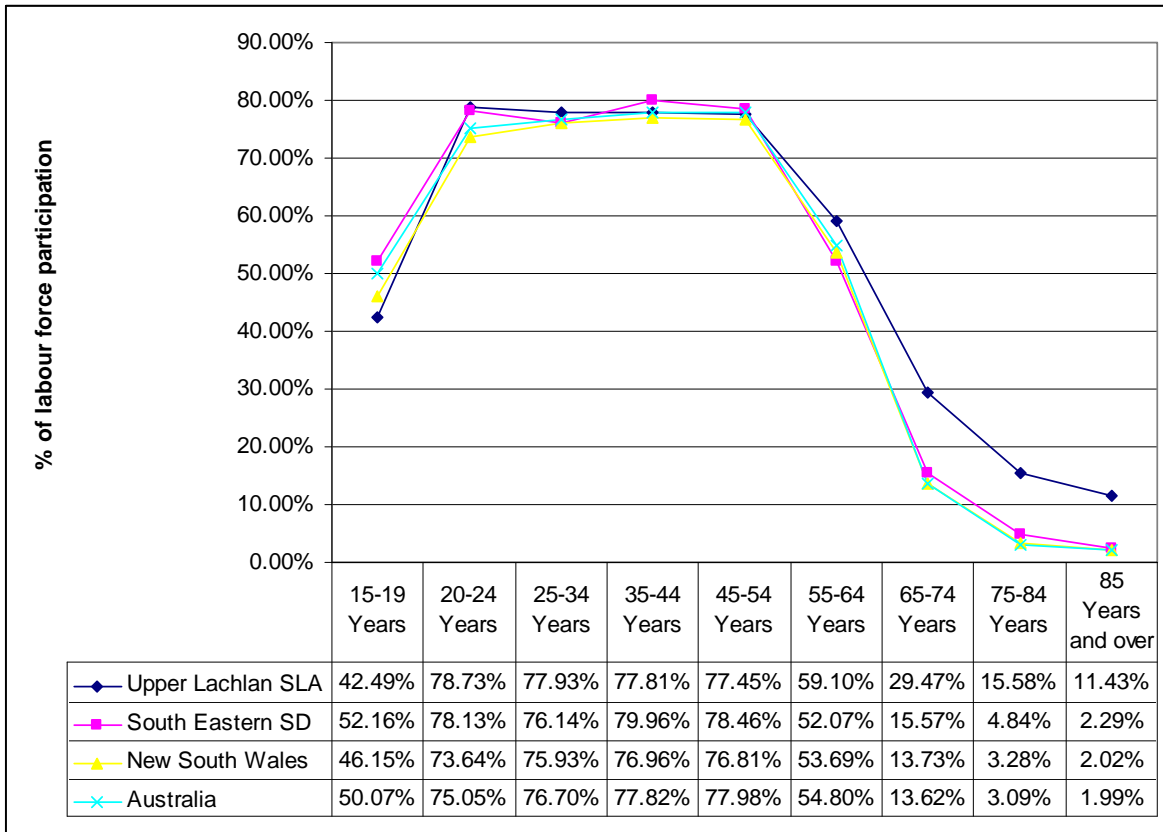
Table 17-2 Labour Force Status (2006 Census)

		Upper Lachlan SLA	South Eastern SD	New South Wales	Australia
Employed:	Full-time	2,091	54,535	1,879,628	5,827,433
	Part-Time	922	27,192	842,713	2,685,197
	Employed Away From Work	124	3,640	103,525	337,989
	Hours Of Work Not Stated	81	2,256	83,578	253,566
	Total	3,218	87,623	2,909,444	9,104,185
Unemployed, looking for:	Full-time work	81	3,132	115,165	310,581
	Part-Time work	44	1,634	67,994	193,221
	Total	125	4,766	183,159	503,802
	Unemployment Rate	3.88%	5.44%	6.30%	5.53%
Total Labour Force		3,343	92,389	3,092,603	9,607,987

Source: ABS Basic Community Profiles 2006, URS Analysis

Figure 17-2 shows the proportion of labour force participation based on the age of residents in each of the assessed regions. This diagrammatic representation indicates that on a local, state and national basis the project areas follow a similar trend in terms of the proportion of each age group in the labour force. The Upper Lachlan SLA has a significantly larger proportion of 'post working age' participants in the labour force than the regions that encompass it.

Figure 17-2 Proportion of Labour Force Participation by Age (2006 Census)

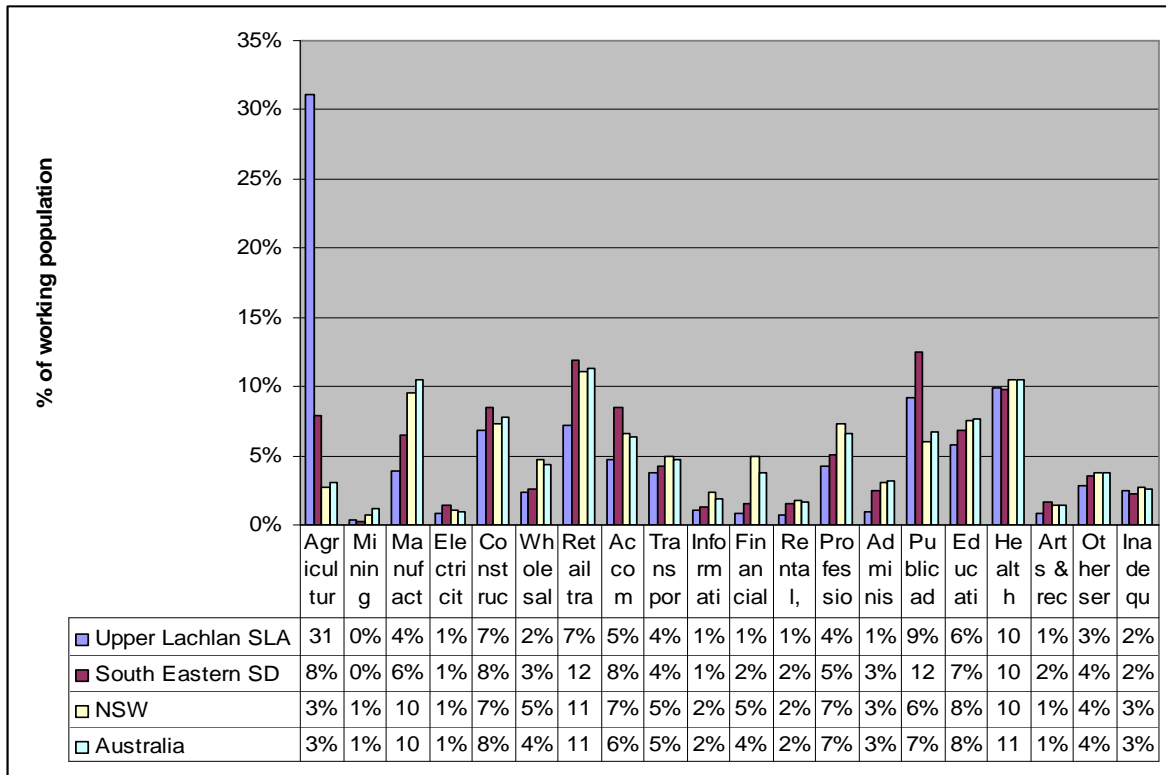


Source: ABS Basic Community Profiles 2006, URS Analysis

Industry Employment

The major industries in terms of the proportion of the working population employed in different industries are shown in **Figure 17-3** for Upper Lachlan SLA, South Eastern SD, NSW and Australia. The three major industries in the Upper Lachlan SLA are agriculture (31%), healthcare (10%) and public administration and safety (9%). A relatively high level of construction workers in both Upper Lachlan (7%) and the South Eastern SD (8%) could mean that labour for the construction phase of the Project could be sourced almost entirely from the local region. The three major industries in both NSW and Australia as a whole are Retail Trade, Health Care and Social Assistance and Manufacturing.

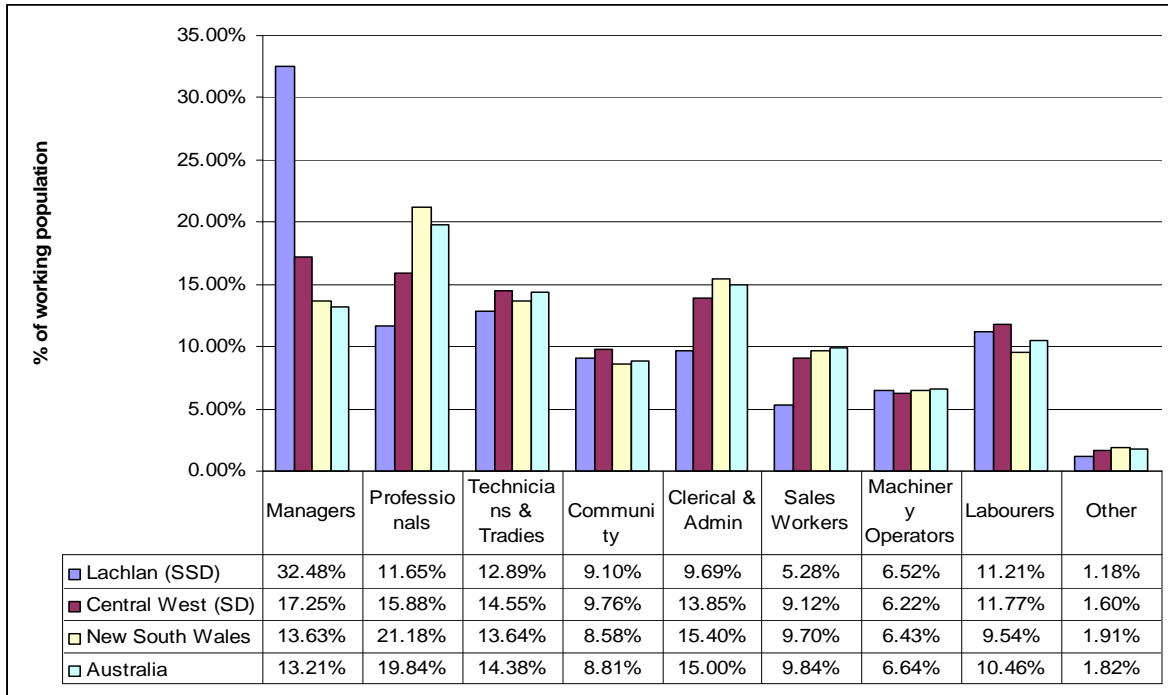
Figure 17-3 Industry of Employment (2006 Census)



Source: ABS Basic Community Profiles 2006, URS Analysis

Further examination of the current labour force in the Project area is shown in **Figure 17-4**, which presents the proportion of the working population in a range of occupation categories. This figure indicates that in the Upper Lachlan SLA, the two major occupation categories are managers (32.48%), and technicians and trades workers (12.89%). There is a significantly higher proportion of managers than in NSW or nationally, reflecting the dominance of the agricultural sector within the Upper Lachlan SLA. The proportion of professionals is significantly less in the Upper Lachlan than in the wider region, NSW and Australia. In comparison to the local project area, NSW has a comparatively higher number of professional workers, which is likely to reflect the influence of Sydney as a capital city.

Figure 17-4 Occupation of Labour Force Participants (2006 Census)



Source: ABS Basic Community Profiles 2006 and URS Analysis

17.3 Social Impacts

This section presents the potential social impacts of the Project, with a particular emphasis on localised impacts. The main social impacts relating to the Project include impacts on local employment and environmental amenity.

17.3.1 Employment Impacts

The Project is to be completed in two stages, with each stage of construction taking approximately 24 months to complete and requiring up to approximately 250 construction workers. AGL would endeavour to source as much of this construction labour from the local region, in particular from Goulbourn, the largest major town within close proximity to the Project site. Once operational, the facility would require approximately 5-10 full time employees, and AGL would seek local workers to operate the Dalton facility wherever possible.

Table 17-3 Labour Requirements

	Construction Stage 1	Construction Stage 2	Operational Stage
Labour Requirements	250	250	7

As also discussed in **Section 16.8.1**, a high level assessment of employment impacts carried out for the Project has identified a relatively high proportion of construction workers in both the Upper Lachlan SLA and the South Eastern SD. It is reasonably assumed that construction labour requirements for both stages of the Dalton Power Project could easily be sourced from the local region.

Given the size and significant cost of the Project, sourcing local employees for the construction and operational phases of the Project would generate positive social impacts for the local Dalton population, as well as the wider population within the Upper Lachlan LGA as well as neighbouring council areas.

17.3.2 Localised Amenity Impacts

Localised amenity impacts, during the construction and operational phases of the Project, were been assessed individually and are discussed in detail throughout this Environmental Assessment. Specialist studies have been undertaken taking into account the Projects impacts on a number of key areas, including:

- traffic and transportation
- noise
- air quality; and
- visual impacts.

The results of these studies have indicated that while some impacts would be generated during the construction phase of the Project, these impacts can be effectively ameliorated and are short term in nature. Longer, operational impacts were also assessed, with the specialist studies finding that these impacts are acceptable in terms of overall local environmental amenity. AGL has gone through a thorough site selection process to ensure that the Project would result in minimum amenity impacts for the local population. Overall, amenity impacts resulting from the Project are considered to be acceptable and would not have an adverse impact on the local population.

17.4 Economic Impact Analysis

Economic impact analysis is typically carried out to determine the impact of a project on economic activity, employment and trade in both the private and public sector. Such studies are useful where the impact of a project needs to be quantified.

To broadly quantify the estimated economic impacts of the Dalton Power Project, the economic analysis that was undertaken on behalf of AGL for the recently approved Leafs Gully Power Project was used.

The Leafs Gully Project, while smaller than Dalton, is nevertheless comparable, as it provides a basis for demonstrating the overall economic benefits of a similar gas fired peaking facility, albeit with a maximum generating capacity of 300 MW. Despite this, the size of the Leafs Gully Power Project is similar in scale to the first stage of the Dalton Power Project. The overall economic benefits of the Leafs Gully Power Project are presented below.

Chapter 17

Socio Economic Assessment

Table 17-4 Economic Benefits - Leafs Gully Power Project

Economic Benefit	Amount (\$)
Value added GDP effects during construction	50.9 million
Value added GDP effects during operation	29.7 million
Effects on household income during construction	15.8 million
Effects on household income during operation	0.7 million

The purpose of the economic analysis is to contribute to the overall socio economic assessment for the Dalton Project. The intention is to provide a broad quantification of estimated economic impacts. Accordingly, the economic benefits expected to arise from the DoPI approved Leafs Gully Power Project (as determined through a robust economic assessment) have been scaled to provide an approximate value of the likely benefits that may be expected from the Dalton Power Project.

17.5 Estimated Economic Impact of the Project

The Dalton Power Project would have an economic impact on the Australian economy in two phases, the construction phase and the on going operational phase. Economic impact is typically measured in terms of four key indicators. These include output, value added, household income and employment.

Stage 1 impacts depend on the how many turbines are constructed. Stage 1 may involve the construction of between two and four turbines with a total generating capacity between 250MW and 780MW. Estimated economic impacts for Stage 1 would comparable to Leafs Gully if only 250MW of generating capacity is provided, given that Leafs Gully had a total capacity of only 300MW. If Stage 1 results in 780MW of generating capacity being provided on site, the estimated economic impacts are outlined below.

Table 17-5 Estimated Economic Benefits - Dalton Power Project Stage 1

Economic Benefit	Amount (\$)
Value added GDP effects during construction	152.7 million
Value added GDP effects during operation	89.1 million
Effects on household income during construction	47.4 million
Effects on household income during operation	2.1 million

Economic impacts for the entire Project, that is, up to 1500MW of generating capacity, are also outlined in the table below.

Table 17-6 Total Estimated Economic Benefits for the Dalton Power Project

Economic Benefit	Amount (\$)
Value added GDP effects during construction	254.5 million
Value added GDP effects during operation	148.5 million
Effects on household income during construction	79 million
Effects on household income during operation	3.5 million

17.6 Summary of Economic Impacts

The estimated economic impacts for the Project show positive economic and social benefits at a national level in terms of contribution to GDP, income and employment resulting from the plant construction and operation. It is believed however, that a large proportion of the benefits from the Project would eventuate in the local or state regions. Some of the local impacts likely to be generated by the Project include:

- labour is likely to come from the Upper Lachlan and Goulburn-Mulwaree region, as the construction and manufacturing industries are both strong in terms of the proportion of the workforce employed in these industries, and the local region has a comparative advantage to the rest of NSW in the number of tradespersons working in the area; and
- the local population is not expected to be impacted by the Project as the employment numbers during operation are not significant.

17.7 Mitigation Measures

Where practicable, local contractors and supply companies would be utilised for the provision of labour and services during the construction phase and subsequent operation and maintenance of the plant.

The mitigation measures for social impact broadly relate to the mitigation measures detailed in this Environmental Assessment relating to the control of noise levels, air and water quality, traffic and transportation, visual amenity and other environmental matters. These measures are detailed in **Chapter 7** through **Chapter 18**, and would be implemented to ensure that the Dalton Power Project is managed in an effective and efficient manner, with minimal impact on existing surrounding land uses.

AGL has an active community engagement philosophy that involves support of particular community initiatives. Examples of this are:

- Project Pelican at the AGL owned and operated Torrens Island Power Station (TIPS). This project looks after and rehabilitates injured seabirds. This project has been ongoing for many years;
- Hallett community fund supporting community activities;
- AGL support of the Audax Alpine classic Cycle Ride;
- AGL Support for the Panda enclosure at the Adelaide Zoo;
- AGL support for the reburial of the Kaurna Aboriginal Ancestral Remains that had been held at the South Australian Museum in the Torrens Island Conservation Park; and
- AGL's Warmth in Winter program that support Homeless shelters by contributing to paying for some their winter heating bills.

AGL commits to examining potential involvement in community engagement initiatives within the local communities in which it would operate the Dalton Power Project.