



SOCIO-ECONOMIC CHARACTERISATION OF BERRYBANK WIND FARM

Main Report

Union Fenosa Wind Australia

Berrybank Wind Farm Project

June 2009

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1. EXECUTIVE SUMMARY

Union Fenosa Wind Australia is proposing to develop a wind farm on agricultural land at Berrybank which would comprise in the order of 100 turbines with estimated electricity generation of 200 -300 megawatts. Subject to obtaining the necessary planning and development approvals, construction is expected to commence in the fourth quarter of 2010.

Demographic and economic profile

The demographic profile of Berrybank compiled for this report describes a rural town with a small and stable population. In keeping with the predominant land use of agriculture, the town of Berrybank has a very low population density. The population of Berrybank is very stable with more than 80% of the current population having lived in the same census area for at least five years prior to the 2006 census. This high level of stability and limited movement of residents describes a community with historical ties to the region and a strong connection with their rural properties.

The population of Berrybank has a comparatively high rate of full time employment, and zero unemployment at the time of the 2006 census. Employment in Berrybank is predominately related to the agricultural sector and this is a key driver of economic activity.

The economic profile of the Shires of Corangamite and Golden Plains is largely agricultural based with other economic outputs driven by manufacturing, tourism and gas production. This economic profile is reflected and intensified in data relating to Berrybank, where the predominant industry of employment is agriculture. With only a small total labour force of 67 people, agriculture accounts for 58.2% of employment in Berrybank.

Economic impacts

Economic impacts as a consequence of the proposed wind farm may arise from three phases during the life cycle of the development:

- Planning and construction related impacts.
- Operational impacts.
- Decommissioning impacts.

In simple terms, the proposed Berrybank wind farm development is likely to stimulate the economy in the Corangamite and Golden Plains Shires as a result of greater income generation and subsequent expenditure in the region. The proposed wind farm development has the potential to deliver direct and indirect benefits for host communities and the local and regional economies.

Direct Impacts

Employment

It is estimated that up to 240 full time equivalents will be employed at the peak of construction during the 12 to 14 month construction period, expected to commence in the fourth quarter 2010. Ongoing operation and maintenance of the wind farm and substation will require up to 25 full time, permanent staff for the lifespan of the project. Employment growth is also likely to be observed in

the project's supply chain with opportunities for suppliers of goods and services to the development.

Direct employment opportunities benefiting Berrybank and the surrounding region largely depend on the extent to which labour used in the construction and operation of the wind farm is sourced locally, regionally or otherwise. Union Fenosa Wind Australia has indicated that it will establish a policy of preferentially sourcing local labour for construction and maintenance where practicable.

Capital Investment

The total capital investment estimated for the Berrybank wind farm development is \$484 million. In the order of 60% – 65% of the total capital investment will be expended overseas through the purchase of the wind turbines which are not available in Australia. Approximately 10% of the capital expenditure is for the purchase of the turbine towers which are available in Victoria or South Australia, depending on market conditions and the affordability of Australian components. The balance of the total capital investment (25% – 30%) relates to construction activities. The distribution of capital through construction activities in the local, regional, state and national economies cannot be accurately forecast at this stage as it is dependent on the project's construction contracts and the geographical sourcing of goods and services. Three scenarios have been used to estimate the extent of construction related expenditure in South-Western Victoria. The scenarios provide projections based on 25%, 33.33% and 50% of construction related expenditure occurring in the region. The three scenarios provide a range of \$30.25 million - \$72.5 million expenditure in South-Western Victoria.

Land Use and Revenue

Union Fenosa Wind Australia will lease land from landowners to locate wind turbines on their property, enabling existing owners to maintain ownership and ongoing use and management of their properties. Additional income provided to landowners provides a new source of revenue for farmers and helps to diversify the economic base of the local economy and will enable it to better withstand agricultural commodity price declines and unfavourable farming conditions.

Contribution to Shire Councils

Based on current estimates for the total number of turbines and the generating capacity of the turbines, Union Fenosa Wind Australia will contribute in the range of \$202,000 to \$265,000 per year. This estimated amount would be proportionately split between Corangamite and Golden Plains Shire having regard for the number of turbines and generating capacity. Over the life of the project, the financial contribution as a result of the project will be significant and will assist the Shire Councils in funding local services and infrastructure.

Indirect Impacts

Personnel employed during the construction phase may contribute to the local economy via expenditure of a portion of their salaries and demand for goods and services such as accommodation, food and entertainment. The extent of this impact and the amount of money invested in the local economy is dependent on where the construction workforce is located.

Regional economic multipliers are a standard way to identify the potential effects of a major change in a region's economy by approximating economic changes and flow on effects resulting from an initial project investment. Applying a regional multiplier of 1.9 to the estimated direct

investment to be made in the South-Western Victoria region provides an estimated economic benefit for the region in the range of \$57.5 million – \$138 million.

Indirect employment opportunities will be generated within the Corangamite and Golden Plains Shires and the surrounding region as a result of the proposed Berrybank wind farm development. Indirect employment opportunities will arise through the provision of goods and services to the project. Additional effects may arise from possible family relocation for the construction period (increased demand on/for local services i.e. health services, schools, child care, recreational facilities) and indirect benefits for local businesses such as retail stores, hospitality and entertainment venues particularly during construction.

Other potential indirect economic impacts associated with the proposed wind farm development include:

- Changes to land value.
- Visual and noise impact.
- Tourism impacts.
- Population impacts.
- Increased demand for manufacturing and servicing capabilities.
- Community investment.

Social and policy objectives

Policy frameworks established by the Shires of Corangamite and Golden Plains and the G21 Alliance are relevant considerations for the proposed development. Each of these bodies has established a broad policy framework under which objectives and activities are set to drive the social policy directions set by local and state government. The proposed Berrybank wind farm development supports and reflects a number of state and local social and policy objectives. Of particular relevance to the proposed Berrybank wind farm development are policies centred on economic development, environmental management, tourism and agriculture.

Stakeholder consultation and community attitudes

The stakeholder consultation program undertaken for the proposed Berrybank wind farm development has involved various consultation mechanisms with interested stakeholders. The stakeholder identification process identified a range of relevant stakeholders including:

- Elected representatives of local, state and federal government.
- Local Shire Councils
- Regulatory agencies, Federal and State Government Departments.
- Turbine host landowners.
- Landowners on neighbouring properties.
- The broader community of Berrybank and the surrounding district.
- Local media

In addition to the engagement activities involving government stakeholders and landowners, community-wide engagement activities were conducted to provide information about the proposed development. These activities included:

- Community newsletter briefing distributed to residents within several kilometres of the proposed development, including the townships of Lismore and Cressy.

- A Community Information Day held in November 2008 to present details about Union Fenosa, wind farms and the proposed development, attended by an estimated 50 people.
- Program of personal farm and home visits to 69 residences (41 of which participated in the survey) conducted in February 2009 during which a survey was undertaken to gauge community views on a range of potential issues associated with wind farm developments.

It has been evident that there were initial concerns in the community about the process used for consultation, particularly about the thoroughness and timing of information and the transparency of the process. The community information day in November 2008 and the door knock consultation process in February 2009 has strengthened the process and provided direct opportunities for residents to obtain information and discuss matters with the project team on an individual basis.

As demonstrated by the door knock survey results the community views of wind farm developments are divided. The number of residents who were concerned with wind farms (17) equalled the number of respondents who supported wind farms. Seven respondents remained neutral on the issue. The door knock process was limited to the area within 3 km of the proposed wind farm. Within this immediate area, residents do not share a unified opinion on wind farm developments. As is the case with many wind farm developments, the community in the area immediately adjacent to the proposed development has formed two camps with very opposing views.

The door knock process did not obtain survey results for areas further away from the development. In this wider community, it is possible that views on wind farm developments may be influenced more by issues such as regional benefits and desirability of renewable energy development, rather than by the potential for impacts to arise in the immediate project area.

Identification of potential social issues

During the course of the consultation program, stakeholders, landowners and residents raised a number of potential social issues associated with the proposed wind farm developments. These potential issues and other issues typically raised in wind farm developments have been identified and considered. The scope of the report does not extend to an assessment of these potential impacts or the identification of mitigation measures, however it does characterise the issue and outline potential areas of future study and activities that Union Fenosa Wind Australia may wish to progress in consultation with local government and the community.

Potential social issues in regard to the proposed Berrybank wind farm development include:

- Local employment opportunities.
- Local business opportunities.
- Social cohesion.
- Visual impacts.
- Noise and shadow flicker.
- Land values.
- Land Use.
- Fauna impacts.
- Bushfire hazards and fire management.
- Construction workforce accommodation requirements.
- Cumulative Impacts.

Recommendations for future activities

It is recommended that Union Fenosa Wind Australia progress a number of future activities in consultation with local government and the community. In summary, the recommendations include:

- Implement a coordinated and transparent communication and engagement strategy throughout the planning process, construction and operational phases of the project.
- Formalise, maintain and promote a consultation register, grievance mechanism and issue / resolution tracking mechanism.
- Establish and publicly promote an “Employ Locally” policy for preferentially sourcing labour from the local community and region wherever practicable. The policy should be developed with some urgency, clearly articulating the first, second, third and subsequent priority areas for employment. The “Employ Locally” policy position should be incorporated into tender documents and contractual obligations on the construction contractor/s.
- Provide a detailed inventory of employment requirements during construction and operations to Council and the broader public.
- Establish and publicly promote a “Buy Locally” policy for preferentially sourcing goods and services from the local community and region wherever practicable, based on local capacity, ability to supply, quality and cost competitiveness. The policy should be developed with some urgency, clearly articulating the first, second, third and subsequent priority areas for project procurement requirements that have some likelihood of being sourced from nearby the project location. The “Buy Locally” policy position should be incorporated into tender documents and contractual obligations on the construction contractor/s.
- Provide a detailed inventory of construction activities, labour requirements, services, materials and other procurement requirements to Council and the broader public to inform the further development and implementation of local business capacity building programs.
- Collaborate with the Shire Councils, regional development boards and relevant chambers of commerce to implement local business assistance programs.
- Develop a formal approach to community investment programs and partnerships which provide sustainable benefits to the community of Berrybank and surrounding districts. A transparent process should be established to set annual funding priorities in consultation with an appointed community reference panel.
- Establish a code of conduct for construction contractor staff through the construction contracts in consultation with the construction contractor/s.
- Consider the erection of appropriately placed road-side signs in the areas bordering the wind farm in consultation with the Shire Councils to emphasise the benefits of renewable energy and the positive environmental impacts associated with wind farms.
- Consider producing a video for external publication which advocates the benefits of wind farms and highlights the views of supportive residents who reside within a wind farm development.
- Establish and maintain dialogue with the Lismore Group Country Fire Authority and local CFA officers in Berrybank to determine how CFA requirements and fire management plans can be considered in project design and execution.

- Identify opportunities to financially support appropriate training and small scale equipment purchase to assist in up skilling volunteer fire fighters to fight fires in an altered rural landscape with wind turbines.
- Establish policies and management systems to incorporate bush fire risk minimisation strategies and to establish how fire bans will be considered in the scheduling and conduct of construction activities in consultation with the CFA and the construction contractor/s.
- Establish a dialogue with the Shire Councils to consider the potential impacts on social and physical infrastructure and services as a result of population changes within the region associated with the construction and operation of the proposed wind farm development.
- Commission a specific study in collaboration with the Council Shires to investigate possible impacts from a construction workforce requiring accommodation, and that the findings of this study inform the project's decisions on the preferred approach to accommodation.

2. INTRODUCTION

2.1 Background

Union Fenosa Wind Australia controls leases for a proposed wind farm at Berrybank in South Western Victoria. The development site at Berrybank is located 60 km east of Mortlake, within the Golden Plains Shire and Corangamite Shire Council. The development site at Darlington is located 5 km east of Mortlake, within the Moyne Shire Council region.

The proposed Berrybank wind farm will comprise in the order of 100 turbines with estimated electricity generation of 180 – 250 megawatts. The combined Berrybank and Darlington projects will comprise approximately 250 turbines which would produce in the order of 500 – 550 megawatts of power. The total estimated project cost of both wind farms is circa A\$1.25 – A\$1.35 billion.

The Victorian Minister for Planning has decided that a planning application can proceed without the need for an Environmental Effect Statement (EES). The planning application will involve the consideration of potential impacts on factors including:

- Flora and fauna.
- Aviation.
- Noise.
- Transport.
- Heritage and amenities.
- Shadow flicker.
- Electromagnetic interference.
- Visual.

Union Fenosa Wind Australia has elected to pursue planning approval for the development at Berrybank in advance of the proposed site at Darlington. This study is limited to the proposed development at Berrybank.

As part of this application process, a characterisation of socio-economic aspects is required, to describe the project area and the potential impacts and benefits. The findings of that characterisation study are presented within this report.

2.2 Project Proponent

In July 2008, Union Fenosa signed an agreement with TME Group to acquire 80% of an 800MW portfolio of wind farm projects in Australia. As a result of this agreement, Union Fenosa Wind Australia was created and took over the operation of all TME Group projects in Australia. Union Fenosa Wind Australia is 80% owned by Union Fenosa and 20% by the partners of the TME Group who began their wind farm projects in Australia back in 1999.

The project proponent has several wind farm projects in Victoria and New South Wales which are well progressed, and several other sites in NSW, Victoria and other states which are under monitoring and in earlier stages of development.

2.3 Study Area

The proposed location plan for the Berrybank wind farm development is shown at Figure 1. The proposed development at Berrybank is located in South-Western Victoria in two Shires – the Corangamite Shire Council and the Golden Plains Shire. The Corangamite Shire Council is approximately 4,400 km² in area and the Golden Plains Shire is approximately 2,700 km² in area.

Figure 2 provides the regional context by showing the Victorian Shire boundaries at a whole of State level. Figure 3 shows the boundaries of the Corangamite Shire Council and the Golden Plains Shire and demonstrates that Berrybank is located at the boundary of the two Shires.

The socio-economic characterisation focuses principally on the Berrybank 2006 Census Collection District (2100208). This Census Collection District is approximately 224 km² in area and takes in the area of the proposed development and is thus the most relevant district for comparative demographic purposes. The town Lismore is located approximately 14 kilometres to the west of Berrybank on the Hamilton Highway.

2.4 Study Scope

The objectives of the socio-economic characterisation are to:

- Establish a demographic profile of the Berrybank Census Collection District.
- Compare the Berrybank demographic profile with the Shires of Corangamite and Golden Plains.
- Establish an economic profile of the Berrybank region.
- Describe the scope of local and regional employment and economic opportunities.
- Describe the potential employment and economic impacts that the proposed development could have on the Berrybank region.
- Identify relevant social policy objectives of the two Shires and identify how the proposed development complements these policy objectives.
- Review community consultation activities undertaken by the project proponent, assess community feedback and provide a qualitative assessment of social issues arising from consultation in the Berrybank region.

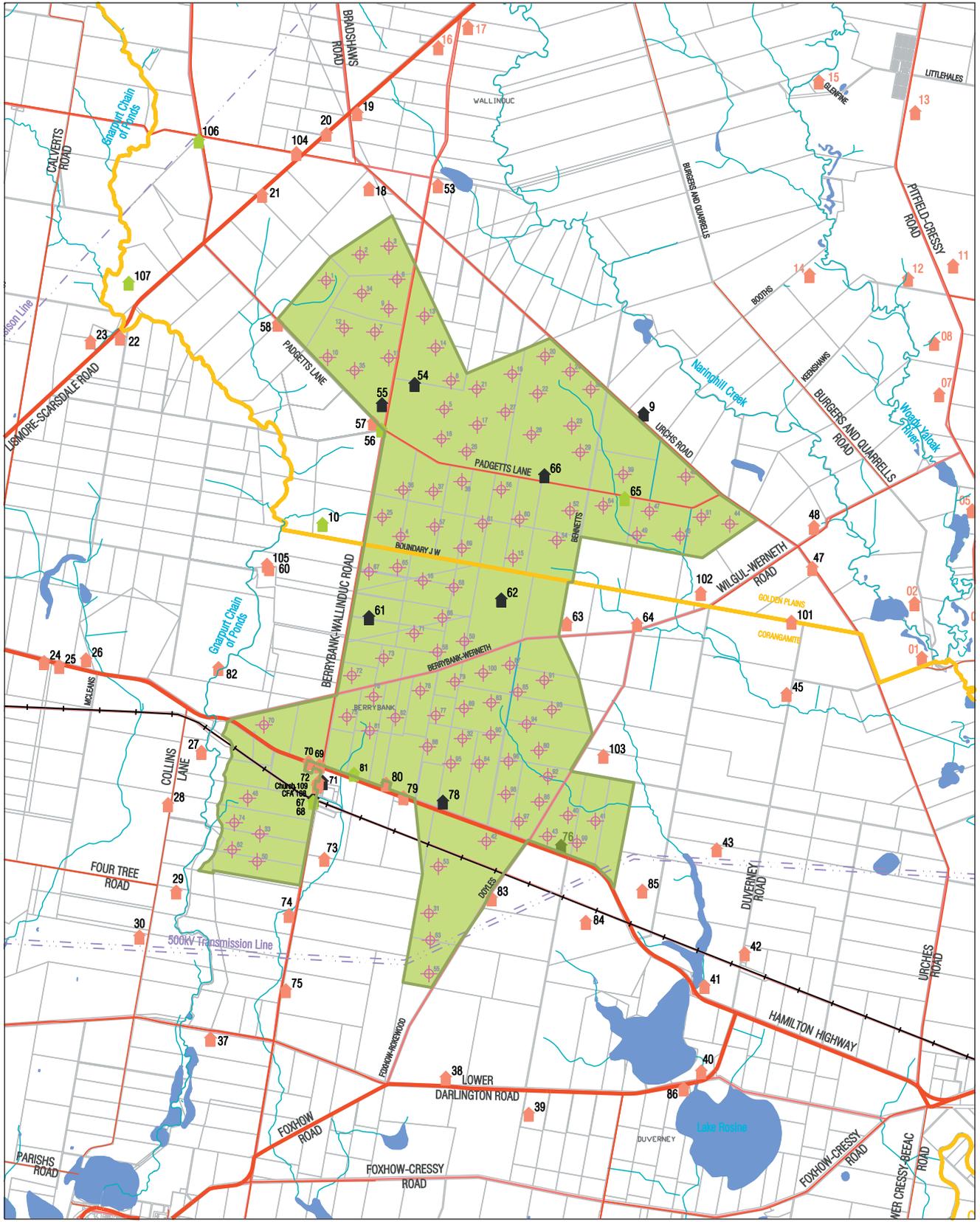
2.5 Study Approach

The socio-economic characterisation is limited to a desktop review of available secondary information sources, review of the community consultation program and outcomes and dialogue with project managers and consultants.

To complete this report, the following activities were undertaken:

1. Definition of the project area and identification of the relevant Census Collection District.
2. Compilation of census data relevant to the Berrybank Census Collection District (2100208), Corangamite Shire Council (LGA 21830) and the Golden Plains Shire (LGA 22490).

3. Compilation and comparison of key demographic indicators in relation to the three census areas – Berrybank, Corangamite Shire Council and Golden Plains Shire.
4. Analysis of similar wind farm development planning applications and panel determinations to inform the approach to economic and employment projections.
5. Analysis of economic and employment data and description of opportunities within the local area and broader region.
6. Compilation and consideration of Shire social and economic development policies, with a subsequent analysis and description of how the proposed developments can assist in the achievement of the policy objectives.
7. Review of consultation activities undertaken and an analysis of community feedback received as a result of the consultation program, with a subsequent qualitative analysis of social issues that have been identified during the consultation program.



- Activity Area
- Municipal Boundary
- Transmission Line
- Proposed Turbine
- Dwelling
- Dwelling (Under Agreement)
- Dwelling (Uninhabitable)



SCALE 1:60000 @ A3
 0 600 1200 3000

State of Victoria - Municipal Council Boundaries



Source: Victorian Electoral Commission, 2006.



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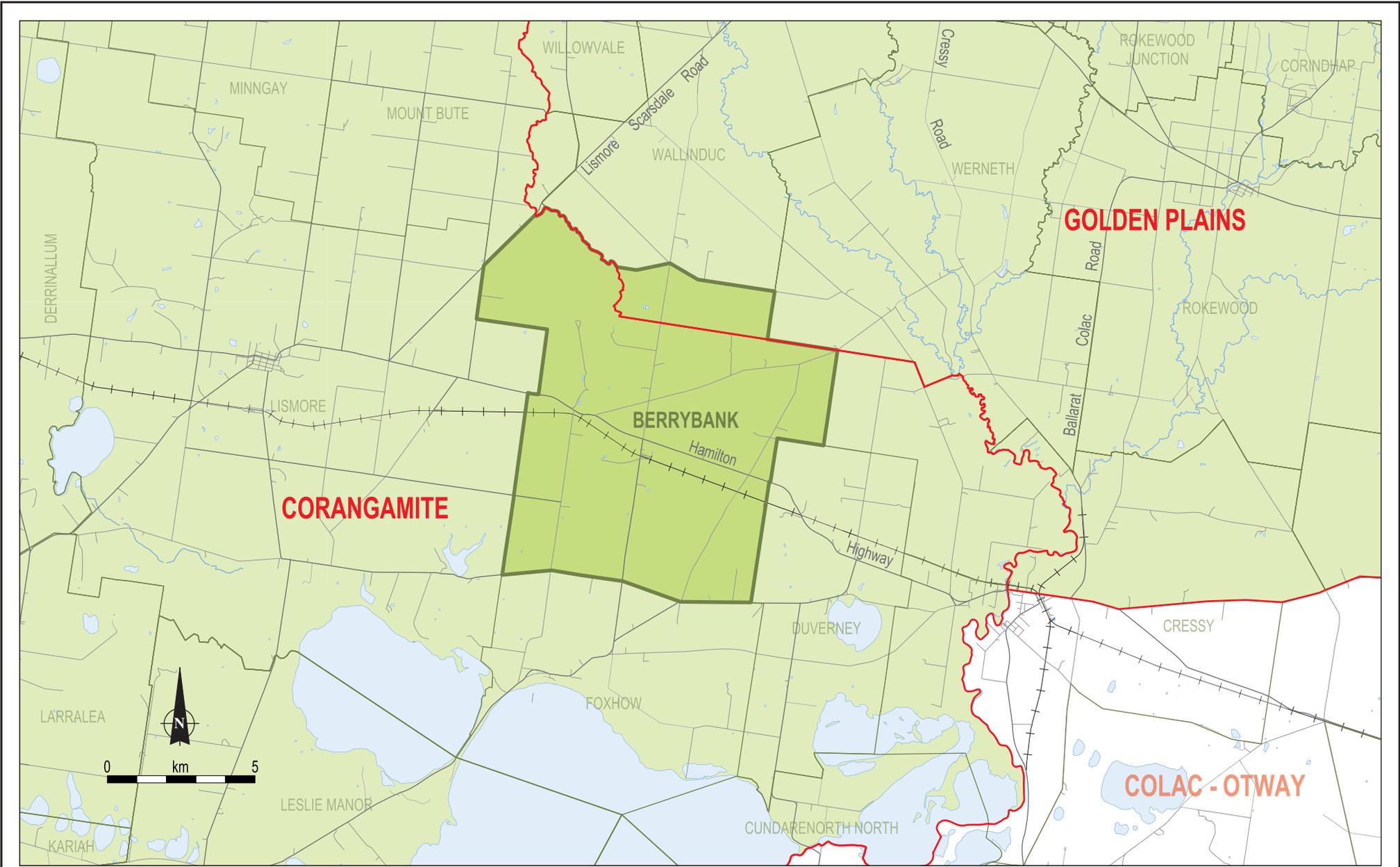
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Socio-Economic Characterisation of
Berrybank Wind Farm



Victorian shire boundaries

Figure No:

2

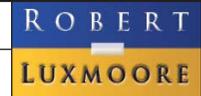


Source: Spatial Information Infrastructure, Ballarat, November 2006.



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Robert Luxmoore Project Management
Socio-Economic Characterisation of
Berrybank Wind Farm



Corangamite shire boundaries

Figure No:
3

3. DEMOGRAPHIC AND ECONOMIC PROFILE

3.1 Demographic Profile

A demographic and economic profile for the region of Berrybank has been established to describe the community which reside within and near to the proposed wind farm development site at Berrybank.

The data used to establish this demographic profile is drawn from the Australian Bureau of Statistics 2006 Census, held on 8 August 2006. The data tables set out below provide a detailed demographic picture of the Berrybank Census Collection District (2100208). In addition to presenting a profile of the small community in Berrybank, a comparison is made with the broader region by considering census data in the Corangamite Shire Council (LGA 21830) and the Golden Plains Shire (LGA 22490) (ABS, 2006).

3.1.1 Population and Changes over Time

3.1 Total population

Census Year	Berrybank CDC	Corangamite LGA	Golden Plains LGA
1996	N/A	16,963	13,158
2001	N/A	16,675 (-1.7%)	14,319 (+8.8%)
2006	114	16,379 (-1.8%)	16,093 (+12.4%)

In the 2006 Census, there were 114 persons usually resident in Berrybank: 51.8% were males and 48.2% were females. Of the total population in Berrybank, there were no Indigenous persons in the census district, compared with 2.3% Indigenous persons in Australia. The Berrybank Census Collection District was not separately recorded in the 1996 and 2001 censuses.

Berrybank is located at the boundary of the Corangamite Shire Council and Golden Plains Shire and accordingly the population of 114 as detailed in Table 3.1 will also be represented in the data for either the Corangamite Shire Council or the Golden Plains Shire.

The town of Lismore is located 14 km to the west of Berrybank and has a total population of 512. It is outside the scope of the demographic profile.

3.1.2 Population by Age

3.2 Population by age cohort

Age cohort	Number of persons and percentage of total persons in region		
	Berrybank CDC	Corangamite LGA	Golden Plains LGA
0-4	7 (6.0%)	1,031 (6.2%)	1,119 (6.8%)

3.2 Population by age cohort (cont'd)

5-14	11 (9.4%)	2,600 (15.6%)	2,834 (17.2%)
15-24	10 (8.5%)	1,704 (10.3%)	1,770 (10.8%)
25-54	52 (44.4%)	6,268 (37.7%)	7,105 (43.2%)
55-64	22 (18.8%)	2,044 (12.3%)	2,141 (13.0%)
65 years and over	15 (12.8%)	2,970 (17.9%)	1,483 (9.0%)
Median age of persons	43	41	38

In the 2006 census, 15.7% of the population usually resident in Berrybank were children aged between 0-14 years, and 32.5% were persons aged 55 years and over. The median age of persons in Berrybank was 43 years, compared with 41 in Corangamite and 38 in Golden Plains (by comparison, median age of 37 years for persons in Australia).

Of relevance for the development, it is noted that in Berrybank 81.1% of the population could be considered to be of 'working age' (this is based on the ABS defined age cohorts of 15-24 years, 25-54 years and 55-64 years). In the Corangamite Shire and the Golden Plains Shire, the proportion of the population of 'working age' was 60.3% and 65.2% respectively.

3.1.3 Population Mobility – Changes in Addresses over Time

3.3 Place of Usual Residence One Year Prior to 2006 Census

	Number of persons and percentage of total persons in region		
	Berrybank CDC	Corangamite LGA	Golden Plains LGA
Same address one year prior to census	101 (89.4%)	13,999 (85.3%)	13,991 (86.1%)
Different address, same statistical local area	0 (0.0%)	802 (4.9%)	311 (1.9%)
Different statistical local area within Victoria	7 (6.2%)	781 (4.8%)	1,115 (6.9%)
Different statistical local area, other State / Territory	0 (0.0%)	128 (0.8%)	133 (0.8%)
Different address overseas	0 (0.0%)	73 (0.4%)	64 (0.4%)
Not stated	5 (4.4%)	627 (3.8%)	636 (3.9%)

3.4 Place of Usual Residence Five Years Prior to 2006 Census

	Number of persons and percentage of total persons in region		
	Berrybank CDC	Corangamite LGA	Golden Plains LGA
Same address five years prior to census	87 (77.0%)	9,991 (64.1%)	9,153 (59.6%)
Different address, same statistical local area	6 (5.3%)	2,169 (13.9%)	967 (6.3%)
Different statistical local area within Victoria	9 (8.0%)	2,103 (13.5%)	3,973 (25.9%)

3.4 Place of Usual Residence Five Years Prior to 2006 Census (cont'd)

Different statistical local area, other State / Territory	6 (5.3%)	349 (2.2%)	383 (2.5%)
Different address overseas	0 (0.0%)	184 (1.2%)	115 (0.75%)
Not stated	5 (4.4%)	788 (5.1%)	743 (4.8%)

Almost 90% of Berrybank residents resided at the same address that they had one year prior to the 2006 census. Approximately 82% of Berrybank residents resided within the same census statistical area that they had five years prior to the 2006 census. By comparison, approximately 78% of residents in Corangamite and 66% of residents in Golden Plains resided within the same census statistical area that they had five years prior to the 2006 census.

Of relevance to the development, the high level of stability and limited movement of residents from Berrybank describes a community with likely historical ties to the region and a strong connection to their rural lifestyle and property.

3.1.4 Country of Birth

3.5 Country of Birth

	Number of persons and percentage of total persons in region		
	Berrybank CDC	Corangamite LGA	Golden Plains LGA
Australia	108 (94.7%)	14,710 (88.5%)	13,974 (84.9%)
England	0 (0.0%)	292 (1.8%)	701 (4.3%)
Netherlands	3 (2.6%)	152 (0.9%)	142 (0.9%)
New Zealand	0 (0.0%)	275 (1.7%)	129 (0.8%)
Scotland	0 (0.0%)	54 (0.3%)	104 (0.6%)
Germany	0 (0.0%)	39 (0.2%)	99 (0.6%)

The residents of Berrybank are predominantly Australian born. A similar profile exists in the Shires of Corangamite and Golden Plains.

3.1.5 Participation in Education

3.6 Type of Educational Institution Attending

	Number of persons attending educational institution		
	Berrybank CDC	Corangamite LGA	Golden Plains LGA
Preschool	4	263	332
Primary School	12	1,639	1,813
Secondary School	0	1,268	1,318
Technical or Further Education Institute	6	254	274
University or other tertiary institution	3	140	322

3.6 Type of Educational Institution Attending (cont'd)

Other institution	0	77	93
Type of educational institution not stated	10	1,182	1040

Within the Berrybank community, 35 residents (30% of the total population) reported that they were attending an educational institution, although 10 of those respondents did not identify the type of institution attended. The majority of those that were attending an educational institution were attending primary school. Of relevance to the proposed wind farm, the cohort of persons who were studying – particularly in technical, further education or tertiary studies – could build the skill base of the region and potentially form part of the future workforce for the project.

3.1.6 Level and Type of Education

3.7 Highest Year of School Completed

Highest Year of School Completed	Number of persons 15 years or over and % of persons over 15		
	Berrybank CDC	Corangamite LGA	Golden Plains LGA
Year 12 or equivalent	27 (29%)	3,393 (26.1%)	3,918 (31.4%)
Year 11 or equivalent	21 (22.5%)	2,520 (19.4%)	2,539 (20.3%)
Year 10 or equivalent	26 (28%)	2,755 (21.2%)	2,768 (22.2%)
Year 9 or equivalent	8 (8.6%)	1,479 (11.3%)	1,399 (11.2%)
Year 8 or below	6 (6.5%)	1,610 (12.4%)	944 (7.5%)
Did not go to school	0 (0.0%)	59 (0.45%)	24 (0.2%)
Highest year not stated	5 (5.4%)	1,170 (9.0%)	901 (7.2%)

3.8 Non-school Qualification Obtained

Non-school Qualification	Number of persons 15 years or over with a qualification, and % of persons over 15 with a qualification		
	Berrybank CDC	Corangamite LGA	Golden Plains LGA
Postgraduate degree	0 (0.0%)	69 (1.3%)	140 (2.3%)
Graduate Diploma and Graduate Certificate	5 (10.2%)	154 (2.8%)	221 (3.6%)
Bachelor Degree	12 (24.4%)	780 (14.1%)	930 (15.3%)
Advanced Diploma	7 (14.2%)	638 (11.5%)	820 (13.5%)
Certificate	13 (26.5%)	2,237 (40.5%)	2,673 (44.0%)
Not stated	12 (24.4%)	1648 (29.8%)	1,286 (21.2%)

3.9 Non-school Qualification – Field of Study

Field of study	Number of persons 15 years or over with a qualification, and % of persons over 15 with a qualification		
	Berrybank CDC	Corangamite LGA	Golden Plains LGA
Natural and physical sciences	0 (0.0%)	59 (1.1%)	110 (1.8%)
Information Technology	0 (0.0%)	25 (0.45%)	68 (1.1%)
Engineering	3 (5.8%)	831 (15.0%)	1,324 (21.8%)
Architecture / building	3 (5.8%)	289 (5.2%)	388 (6.4%)
Agriculture, environmental studies	15 (28.9%)	584 (10.6%)	338 (5.6%)
Health	6 (11.5%)	633 (11.5%)	631 (10.4%)
Education	4 (7.6%)	526 (9.5%)	493 (8.1%)
Management and commerce	6 (11.5%)	421 (7.6%)	680 (11.2%)
Society and culture	0 (0.0%)	303 (5.5%)	486 (8.0%)
Creative Arts	0 (0.0%)	92 (1.7%)	108 (1.8%)
Food, hospitality and personal services	3 (5.8%)	337 (6.1%)	307 (5.1%)
Mixed field programs	0 (0.0%)	4 (0.07%)	3 (0.05%)
Not stated	12 (23.1%)	1422 (25.7%)	1,133 (18.6%)

Almost 80% of the Berrybank population aged 15 years or over had completed Year 10 (or equivalent) or higher. This proportion was higher than in Corangamite Shire (67%) and Golden Plains Shire (74%).

Almost 35% of the Berrybank population who had a qualification had a Bachelor Degree or higher, compared with approximately 18% in Corangamite and 21% in Golden Plains. Agriculture and environment was the predominant field of study.

The extent of persons with post-school qualifications in relevant fields such as engineering, building and environmental studies could assist in attracting an appropriately skilled workforce from within the region.

3.1.7 Labour Force and Employment

3.10 Labour force status

	Count of persons aged 15 years and over, and % of total labour force		
	Berrybank CDC	Corangamite LGA	Golden Plains LGA
Total labour force	67 (67.6% of population 15yrs or over)	7,823 (60.25% of population 15yrs or over)	8,017 (64.14% of population 15yrs or over)
Employed full time	48 (71.6%)	4,783 (61.1%)	4,728 (59.0%)
Employed part time	12 (17.9%)	2,234 (28.5%)	2,383 (29.7%)
Employed hours not stated	7 (10.4%)	228 (2.9%)	208 (2.6%)

3.10 Labour force status (cont'd)

Unemployed looking for work	0 (0.0%)	287 (3.6%)	411 (5.12%)
Not in labour force	26	4,516	3,953
Labour force status not stated	6	649	530

Of the 99 persons in the Berrybank CDC aged over 15 years, 67 (67.6%) were in the labour force. None of these persons were unemployed and looking for work in the period preceding the 2006 census. A total of 26.2% of persons aged over 15 years were not in the labour force and 5.2% did not respond to this census question.

There was no spare capacity in the labour force within the immediate Berrybank area at the time of the census. However, it may be that some residents would prefer to obtain employment associated with the proposed development. It is also noted that national and state unemployment rates have risen since 2006, and as a result it is possible that there are now unemployed persons living in the area.

3.1.8 Income

3.11 Individual and Household Income

Weekly income	Berrybank CDC	Corangamite LGA	Golden Plains LGA	Australia
Median individual income	\$562	\$417	\$426	\$466
Median household income	\$933	\$819	\$1,031	\$1,027
Median family income	\$1,300	\$1,060	\$1,118	\$1,171

Berrybank has higher levels of individual and family income compared with Corangamite and Golden Plains and also exceeded the Australian median. This higher than average income observed prior to the 2006 census could be an indicator of the degree of farming activity and productive agricultural land within the Berrybank region.

3.1.9 Dwelling Characteristics

3.12 Type of Private Dwelling

	Number of dwellings and percentage of occupied private dwellings		
	Berrybank CDC	Corangamite LGA	Golden Plains LGA
Total private dwellings	61	7,534	6,191
Occupied private dwellings	54	6,442	5,671
Separate house	51 (94.4%)	6,062 (94.1%)	5,557 (98.0%)
Semi-detached, terrace or townhouse	0 (0.0%)	68 (1.1%)	4 (0.1%)
Flat, unit, apartment	0 (0.0%)	185 (2.9%)	26 (0.5%)
Other dwelling	3 (5.6%)	123 (1.9%)	84 (1.5%)
Not stated	0 (0.0%)	4 (0.1%)	0 (0.0%)

3.13 Tenure Type

	Number of dwellings and percentage of occupied private dwellings		
	Berrybank CDC	Corangamite LGA	Golden Plains LGA
Fully owned	31 (57.4%)	2,886 (44.8%)	2,224 (39.2%)
Being purchased	8 (14.8%)	1,770 (27.5%)	2,743 (48.4%)
Rented	5 (9.3%)	1,350 (21.0%)	427 (7.5%)
Other tenure type	0 (0.0%)	94 (1.5%)	24 (0.4%)
Not stated	5 (9.3%)	342 (5.3%)	254 (4.5%)

3.14 Dwelling Costs

	Berrybank CDC	Corangamite LGA	Golden Plains LGA
Median weekly rent	\$20	\$100	\$130
Median monthly housing loan	\$1,733	\$867	\$1,083

In Berrybank, separate houses were the predominant type of dwelling, as was the case in Corangamite and Golden Plains. Approximately 57% of private dwellings were fully owned, a proportion which was significantly higher than in Corangamite (44.8%) and Golden Plains (39.2%). The proportion of fully owned private dwellings in Australia was much lower at 32.6%, reflecting a high level of home ownership in Berrybank.

Very few private dwellings in Berrybank were rented (9.3%), and for those that were, there was a low median weekly rent of \$20 compared with the Australian median of \$190. Less than 15% of private dwellings were being purchased in Berrybank compared with Corangamite (27.5%) and Golden Plains (48.4%), however for those that were being purchased there was a comparatively high level of housing loan repayments (median monthly repayment \$1,733 compared with the Australian median of \$1,300).

Dwelling characteristics and the availability of housing may be of high relevance to the development depending on the project's choice of accommodation for its construction workforce.

3.2 Comparative Analysis

The demographic information presented in the preceding section allows for the development of a profile of the Berrybank population, using the Shires of Corangamite and Golden Plains as comparators. Caution should be exercised in drawing definitive conclusions based on small sample sizes such as the population of 114 residents in the Berrybank Census Collection District. Notwithstanding the small sample size, the following key observations emerge from the data to describe the Berrybank area.

Berrybank Comparative Demographic Profile

At the time of the 2006 census:

- Berrybank was a small rural location with low population with comparatively very low population density of approximately one person every 2 km² (otherwise expressed as 0.5 people per km²).
 - Corangamite Shire, Golden Plains Shire and the State of Victoria had population densities of approximately 3.72 people per km², 5.96 people per km² and 21.4 people per km² respectively.
- Berrybank had a comparatively older population with a median age of 43 years, with 32.5% of the population aged over 55 years and only 15.7% of the population aged less than 14 years.
 - The Shire of Corangamite had a median age of 41 years with 30% of the population aged over 55 years. The Golden Plains Shire had a significantly lower median age of 37 years and only 22% of the population were aged over 55 years, with almost one quarter of residents aged under 14 years.
- Berrybank had a comparatively stable population with limited movement of residents, reflected in approximately 82% of residents residing in the same census statistical area as they had five years prior to the census. This indicated a current population with historical links and strong connections to Berrybank and a low proportion of 'new residents'.
 - Corangamite had a similarly stable population base with 78% of the population residing in the same census statistical area as they had five years prior to the census. The population of Golden Plains Shire grew 12.4% between the 2001 and 2006 censuses. Only 66% of Golden Plains Shire residents resided in the same census statistical area as they had five years prior to the census, indicating a higher rate of movement into that region.
- Berrybank residents were predominantly Australian born. There were no Indigenous residents within the Berrybank census collection district.
 - Given the higher populations in the Corangamite and Golden Plains Shires, it is to be expected that there is a stronger multi-cultural basis within these areas relative to Berrybank, however these Shires did have similarly high proportions of Australian born residents.
- Educational achievement in Berrybank was at least the equivalent of the Shires of Corangamite and Golden Plains. 80% of persons aged over 15 years had completed Year 10 or higher, with 29% having completed Year 12.
 - The level of high school educational achievement in the Shires of Corangamite and Golden Plains was similar to Berrybank, with the most significant difference being that 67% of Corangamite residents aged over 15 years had completed Year 10 or higher. The proportion of Berrybank persons aged over 15 completing Year 12 was significantly lower than the rate for Australia as a whole, at 42%.
- A comparatively high proportion (almost 35%) of Berrybank residents with a post-school (tertiary) qualification had achieved a Bachelor degree or higher tertiary qualification, with agriculture and environmental studies being clearly the most common field of study.
 - The proportion of Corangamite and Golden Plains residents with a non-school qualification who have achieved a Bachelor degree or higher tertiary qualification was 18.2% and 21.2% respectively. The most common fields of study in these Shires are engineering, education and health. Agricultural studies in Corangamite (10.6%) and Golden Plains (5.6%) were significantly less common than Berrybank (28.9%).

- A comparatively high proportion (67%) of Berrybank residents aged over 15 years was in the labour force. Of those persons in the labour force, a comparatively high proportion was in full time work. No residents of Berrybank were unemployed and seeking work prior to the 2006 census.
 - The proportion of Corangamite and Golden Plains residents aged 15 years or over in the labour force was 60.25% and 64.14% respectively. The proportion of persons in the labour force in these shires who were in full time employment was lower than in Berrybank (Corangamite 61.1% and Golden Plains 59%). Relative to Berrybank, both these shires had a higher proportion of persons in part time employment and unemployed persons seeking work.
- Berrybank had a comparatively high median weekly individual income (\$562) and family income (\$1300).
 - Corangamite Shire and the Golden Plains Shire are similar to each other in the levels of individual and family income (Corangamite, \$417 and \$1,060; Golden Plains, \$426 and \$1,118) with both Shires being significantly lower than Berrybank. Berrybank also has higher median individual and family incomes relative to Australia (\$466 and \$1,171) and Victoria (\$456 and \$1170).
- There were 61 private dwellings in Berrybank. The types of dwellings reported in Berrybank were consistent with the rural location, with almost 95% of occupied private dwellings being separate houses, with the remainder being classified as 'other' which includes caravans and improvised homes.
 - Despite the significantly higher numbers of total private dwellings, a very similar profile of dwelling type existed in the Corangamite Shire and the Golden Plains Shire. Separate houses accounted for more than 94% of total private dwellings in both Shires.
- Berrybank had a comparatively high rate of home ownership with approximately 57% of private dwellings being fully owned.
 - The Corangamite Shire and the Golden Plains Shire had comparatively lower rates of fully owned private dwellings (approximately 45% and 39% respectively). Berrybank also had a significantly higher proportion of fully owned dwellings relative to Australia (34%) and Victoria (36%).

These collective observations describe a local population in Berrybank that has the following characteristics:

- Rurally based, very low population density.
- A high proportion of the population of working age, with 32.5% of the population aged 55 years or over.
- Stable, with limited re-location, residents have historical ties and strong connections to the region and their properties.
- English speaking and Australian born.
- Educated – particularly in the agriculture sector.

- High proportion of persons in the labour force and in full time employment, with no unemployed persons seeking work (prior to the 2006 census).
- Higher than average income.
- High rates of home ownership.

3.3 Economic Profile

3.3.1 Regional Economic Profile

An economic profile for the region has been established taking into account the specific town of Berrybank (based on ABS data from Berrybank Census Collection District 2100208) and the broader region in which Berrybank is situated. The economic profile of the region in which Berrybank is located is based on information related to the Corangamite Shire Council and the Golden Plains Shire.

Corangamite Shire Council

The economic base of the Corangamite Shire is provided principally through agriculture, value-adding manufacturing, tourism and gas production. Corangamite is one of the top four agriculture producing shires in Victoria (CSC, 2007).

Farming activities in Corangamite include wool / lamb production, beef and grain cropping. Several food and milk processing industries are located within Corangamite and in the south of the Shire there are some of the most intensive dairying areas in Victoria. According to a study by a Deakin University research team, in 2006 the dairy sector (milk production and manufacturing) generated 21.0% of the region's output, added 16.5% to Gross Regional Product (GRP), provided 13.7% of the region's employment, generated 8.8% of the region's income and was responsible for 36% of the region's exports (O'Toole, 2008).

The Shire also has a strong presence of agri-product companies producing stockfeed, fencing materials and water supply equipment. Within the Shire, world leading gas exploration and distribution companies BHP Billiton, Woodside and TruEnergy are pursuing gas developments and contributing to the region's economic base. The Shire is the home of the BHP Minerva Gas Plant, Woodside Petroleum and Cultus Petroleum plants and the local TRU Energy gas storage and processing facility.

In the southern part of the Shire, the Great Ocean Road, the 12 Apostles, the Port Campbell National Park, fishing and volcanic hills and craters attract significant numbers of tourists to the region. Corangamite Shire is also recognised for gourmet food production including cheeses, eel processing and ice cream.

Golden Plains Shire

The Golden Plains Shire is predominately rural, with a number of small townships servicing local communities between Ballarat and Geelong. The Shire is the fastest growing municipality in regional Victoria, and sixth overall in the State, with a growth rate of 3.51%. Many Golden Plains residents work in Ballarat or Geelong.

The shire's economic base is provided through agriculture, retailing and tourism. Home-based business, mainly involving farming operations is the largest employer in the Shire.

According to the Golden Plains Shire Council, the Shire has an annual economic output in the order of \$545M and a Gross Regional Product (GRP) of \$303M (Golden Plains Shire, 2008). The main industry sectors contributing to the Shire's economic output are summarised in Table 3.15.

3.15 Golden Plains Shire Industry Sector Contribution to Economic Output

Industry Sector	Economic Output	Percentage of Golden Plains Shire Economic Output
Agriculture	\$173 million	31.74%
Manufacturing	\$109 million	20.00%
Construction	\$57 million	10.46%
Property and Business Services	\$48 million	8.81%
Retail Trade	\$31 million	5.69%
Wholesale Trade	\$21 million	3.85%
Government Administration	\$21 million	3.85%
Education	\$19 million	3.49%

The following activities make a significant contribution to the overall economic output from agriculture in the Golden Plains Shire (Golden Plains Shire, 2008):

- Sheep farming – \$23.57 million contribution to the gross regional product (GRP).
- Grain production – \$22.91 million contribution to GRP.
- Poultry farming – \$17.53 million contribution to GRP.
- Beef cattle – \$12.32 million contribution to GRP.
- Pig farming – \$4.14 million contribution to GRP.

The following activities make a significant contribution to the overall economic output of construction and manufacturing in the Golden Plains Shire (Golden Plains Shire, 2008):

- Construction trade services sector – \$14.24 million contribution to GRP.
- Wine, spirits and tobacco sector – \$9.49 million contribution to GRP.
- Residential building sector – \$3.4 million contribution to GRP.

3.3.2 Industry and Employment Profile

Analysis of industry employment data further assists in presenting an economic profile of Berrybank and the Shires of Corangamite and Golden Plains. Table 3.16 presents 2006 census data for the predominant industries in which people are employed in this region.

Caution should be exercised in interpreting this 2006 census data given the likelihood that global and national economic conditions in recent months will have altered employment numbers and the industry profile. Nonetheless, the 2006 census data presented provides a useful snapshot of historical employment sectors and supports data presented in regard to significant industry sectors and drivers of the regional economy.

3.16 Industry of employment

	Count of persons aged 15 years and over		
	Berrybank CDC	Corangamite LGA	Golden Plains LGA
Agriculture, forestry and fishing	39	2,509	723
Mining	0	46	37
Manufacturing	3	568	1,191
Electricity, gas, water and waste services	0	57	56
Construction	0	492	739
Wholesale trade	0	307	272
Retail trade	3	709	856
Accommodation and food services	0	340	276
Transport, postal and warehousing	3	323	382
Information media and telecommunications	0	43	143
Financial and insurance services	0	77	103
Rental, hiring and real estate services	0	32	69
Professional, scientific and technical	0	148	265
Administration and support services	0	116	184
Public administration and safety	0	236	381
Education and training	3	464	561
Health care and social assistance	6	639	809
Arts and recreation services	0	46	90
Other services	3	183	289
Not stated	7	488	591

Employment in Berrybank and the Corangamite Shire is predominately related to the agriculture, forestry and fishing sector. Other significant industry sectors contributing to employment and economic activity in the Corangamite Shire are retail trade, manufacturing and construction.

The industry employment profile of the Golden Plains Shire differs to some degree, with higher levels of employment in manufacturing, retail trade and construction. Notwithstanding the higher employment numbers in other industry sectors, agriculture is the region's major driver of economic output and a major employer.

Although the town of Lismore to the west of Berrybank has not been studied for the economic profile, for completeness it is noted that at the time of the 2006 census, 42.2% of employed persons over the age of 15 years were employed in sheep, beef cattle and grain farming.

3.3.3 Summary Economic Profile

The economic profile of the Shires of Corangamite and Golden Plains is largely agricultural based with other economic outputs driven by manufacturing, tourism and gas production. The agriculture, forestry and fishing sector emerges as the predominant industry sector for the region covering Golden Plains Shire and Corangamite Shire. The importance of agriculture is reflected in the employment and economic output statistics.

This economic profile is reflected and intensified in data relating to Berrybank, where the predominant industry of employment is agriculture. With only a small total labour force of 67 people, agriculture accounts for 58.2% of employment in Berrybank. The profile of Lismore to the west of Berrybank is very similar albeit with a larger labour force. Lismore is similarly reliant on agricultural activity to drive employment and economic activity.

In the order of 32% of Corangamite's workforce are employed in the agricultural, forestry or fishing industries. Golden Plains has a much more diverse workforce with only 9% of the labour force employed in the agricultural, forestry and fishing sector. According to 2006 census data, the highest levels of employment in Golden Plains occur within the manufacturing sector, accounting for 15% of the total labour force.

4. EMPLOYMENT AND ECONOMIC IMPACT CHARACTERISATION

4.1 Local and Regional Opportunities

Wind farm developments have the potential to deliver direct and indirect benefits for host communities and the local and regional economies. The proposed Berrybank wind farm could provide substantial benefit to the local and regional economy during construction and over the longer-term. The project may generate and support employment opportunities and boost the prospects of a range of local and regional businesses involved in construction, engineering, transport and business services. Additionally there is likely to be flow-on effects to other regional businesses and provision of some start-up opportunities for new businesses to meet the demands of the development.

4.2 Economic Impacts

Economic impacts as a consequence of the proposed wind farm may arise from three phases during the life cycle of the development:

- Planning and construction related impacts.
Planning and construction related impacts arise from the economic activity associated with the design, development and subsequent construction and commissioning of the wind farm. These economic impacts are short term, in this case approximately 12 – 14 months from the commencement of construction.
- Operational impacts.
The ongoing operation of the proposed wind farm is likely to support a range expenditure and employment associated with the management, operation and maintenance of the wind farm over its lifespan.
- Decommissioning impacts.
At the completion of the operational life of the wind farm additional economic activity is likely to be stimulated as a result of either decommissioning or re-powering the facilities.

4.2.1 Direct Impacts

In simple terms, the proposed Berrybank wind farm development is likely to stimulate the economy in the Corangamite and Golden Plains Shires as a result of greater income generation and subsequent expenditure in the region. Direct economic impacts as a consequence of the proposed wind farm may include:

4.2.1.1 Employment

Large scale energy projects, including wind farm developments have the potential to create new jobs in rural communities in manufacturing, transportation, project construction and operations. Local labour is often used as much as possible for project construction activities such as road upgrades, building construction and erecting turbines. There are significant cost benefits for

construction contractors and the developer in sourcing labour from within the region (avoiding relocation and living-away-from-home allowances, as well as the often difficult matter of accommodating and providing for a large construction workforce). Once construction activities are complete, jobs are created in the operation and maintenance of the turbines and facilities.

It is estimated that up to 240 full time equivalent positions will be required at the peak of construction, expected to commence in the fourth quarter of 2010. Ongoing operation and maintenance of the wind farm and substation will require up to 25 full time, permanent staff for the lifespan of the project. Construction staff would be employed by the construction contractor(s) selected by Union Fenosa Wind Australia. Employment growth is also likely to be observed in the project's supply chain (suppliers of goods and services to the development). These opportunities may include:

- Trade services (plumbing, electrical, building, fitting and turning, concreting) and the supply of hardware for construction and maintenance.
- Temporary and permanent fencing and associated supplies for construction and maintenance.
- Occupational health and safety and personal protective equipment for construction and operations workforces.
- Transport (freight and people-moving).
- Office cleaning.
- Waste disposal.
- Building maintenance.
- Information technology support.
- Professional consultants (i.e. environmental, natural resource or energy specialists).
- In the event of a construction accommodation camp: building, cleaning, waste disposal, catering, maintenance.

The extent of these impacts will, to a certain degree, be influenced by the structure of construction contracts established by Union Fenosa Wind Australia, yet to be determined. One option would see the awarding of two contracts – one for supply, delivery, installation and commissioning of the turbines; and a second contract for the balance of plant including civil and electrical works, substations and transmission lines. An alternative contract arrangement under consideration is to establish one contract for the turbines, and to breakdown the balance of plant into multiple, individual contracts. The nature of these contracts may ultimately influence the extent of local opportunities for securing sub-contractor arrangements and employment.

Direct employment opportunities benefiting Berrybank and the surrounding region largely depend on the extent to which labour used in the construction and operation of the wind farm is sourced locally, regionally or otherwise. Whether these jobs can be filled from local and regional communities will be dependent on the approach to employment taken by Union Fenosa Wind Australia and/or the appointed contractor(s), the existing skill base and experience of the population and the opportunities for training and development.

The construction and operational phases will require highly skilled, semi-skilled and some unskilled labour. As described in Section 3 Demographic and Economic Profile, Berrybank is a

small, rural community whose economy and industries of employment, in 2006, were predominantly related to agriculture. It is possible that Berrybank residents will not have the skills or desire to pursue employment with the project. Conversely, a significant power industry has developed in south and south-western Victoria in recent times, thus it is possible some Berrybank residents have gained skills and experience working on other projects in the region.

It is also likely that there will be opportunities in the broader region within the Corangamite and Golden Plains Shires for the employment of skilled and experience people for the reasons outlined previously. The Corangamite Shire and surrounding areas have identified skills shortages in sectors including engineering / metal trades, electrical / electronic trades and construction trades (GSC, 2008). This is likely to be of relevance to the project as construction activities commence however the region does have experience with energy related projects and a manufacturing, trade and labour capacity to potentially support much of the development (see section 3 Demographic and Economic Profile).

Unemployment in the project region is consistently below the Victorian average, and although the number of unemployed seeking work in these regions is low, employment as a result of the proposed wind farm may further reduce the unemployment rate. This is an increasingly important consideration as global and national economies experience more difficult conditions and unemployment rates rise.

Where part of the workforce is required to move to the project area from outside the study area, the local economy may be further stimulated through expenditure on accommodation, goods and services (see Section 4.2.2. Indirect Impacts).

At the completion of the operational life span of the project, additional temporary employment opportunities may arise from either the decommissioning or re-powering of the wind farm. At this early stage it is difficult to predict the nature of the work, whether it is likely to be dismantling the wind turbines completely or replacing them to extend the operational life of the wind farm, or the potential workforce required.

To ensure employment opportunities remain within the Corangamite and Golden Plains region to the greatest extent possible, thereby maximising economic benefits for the area, Union Fenosa Wind Australia has indicated that it will establish a policy of preferentially sourcing local labour for construction and maintenance activities. Union Fenosa Wind Australia has indicated that this policy will be applied where practicable given the availability of suitably qualified and experienced personnel.

4.2.1.2 Capital Investment

The total capital investment estimated for the Berrybank wind farm development is \$484 million. In the order of 60 – 65% of the total capital investment will be expended overseas through the purchase of the wind turbines which are currently unavailable in Australia. Approximately 10% of the capital expenditure is for the purchase of the turbine towers which are available in Victoria or South Australia, depending on market conditions and the affordability of Australian components. The balance of the total capital investment (25 – 30%) relates to construction activities. Table 4.1 provides a breakdown of total capital investment based on current estimates.

4.1 Estimated Project Capital Investment

Estimated total capital investment	\$484 million	
Overseas expenditure – turbines	60 – 65% of capital investment	\$290 million - \$315 million
Australian expenditure	35 – 40% of capital investment	\$170 million - \$194 million
Towers – Victoria or South Australia	10% of capital investment	\$48 million
Construction activities	25 – 30% of capital investment	\$121 million - \$145 million

The distribution of capital input through construction activities in the local, regional, state and national economies cannot be accurately forecast at this stage as it is dependent on the construction contracts established for the project and the geographical sourcing of goods and services. Although accurate estimates cannot currently be made, the project activities will lead to a degree of economic stimulation in and around Berrybank and in the Shires of Corangamite and Golden Plains.

Table 4.2 sets out a range of scenarios based on the proportion of construction related expenditure in the region of South-Western Victoria. Given the uncertainty in the distribution of capital, these scenarios are provided for indicative purposes and do not constitute detailed economic modelling.

4.2 Estimated Expenditure on Construction Activities in South-Western Victoria

Estimated expenditure on construction activities	25 – 30% of capital investment	\$121 million - \$145 million
Scenario A	25% of construction expenditure in region	\$30.25 million – \$36.25 million
Scenario B	33.33% of construction expenditure in region	\$40 million - \$48 million
Scenario C	50% of construction expenditure in region	\$60.5 million - \$72.5 million

4.2.1.3 Land Use and Revenue

Union Fenosa Wind Australia will lease land from land owners to locate wind turbines on their property, enabling existing owners to maintain ownership and ongoing use and management of their properties. Additional income provided to landowners from the leases to the wind farm may slightly raise the average household income in the area by providing a new source of revenue for farmers. The additional income source helps to diversify the economic base of the local economy of the region and will enable it to better withstand agricultural commodity price declines, droughts and other negative shocks to the agricultural sector.

When operational, crops can be grown and livestock can be grazed up to the base of the turbine's supporting platform. The impact is greater in the construction phase when greater portions of land may not be accessible for farming operations due to the need to fence construction areas, create access tracks and use equipment. Lease arrangements reflect that difference in loss of agricultural production during construction and operation phases. It is noted however that the land take associated with the wind farm development is less than 1% of land in the project area.

4.2.1.4 Contribution to Shire Councils

Section 94 of the Electricity Industry Act allows local councils to charge rates for wind farm electricity generating facilities. Wind farms are projected to contribute millions of dollars in rate payments to local councils across Victoria in the future (Sustainability Victoria, 2007). In general terms, the rate is a base payment of \$40,000 plus \$900 per MW. Based on current estimates for the total number of turbines and the generating capacity of the turbines, Union Fenosa Wind Australia will contribute in the range of \$202,000 to \$265,000 per year in total to Shire Councils as a result of the Berrybank development. This estimated amount would be proportionately split between Corangamite and Golden Plains Shire having regard for the number of turbines and generating capacity.

Over the life of the project, the rates paid as a result of the project will be significant and will assist the Shire Councils in funding local services and infrastructure.

4.2.2 Indirect Impacts

The proposed Berrybank wind farm is likely to provide noticeable boosts to the local economy through various income and expenditure effects. Personnel employed during the construction phase may contribute to the local economy via expenditure of some proportion of their salaries on goods and services such as accommodation, food and entertainment. The extent of this impact and the amount of money invested in the local economy is dependent on where the construction workforce is located. To date, no decisions have been taken by Union Fenosa Wind Australia about workforce accommodation requirements, although promising discussions have commenced with accommodation providers in Lismore.

Conversely, in projects where the construction workforce is housed within a purpose-built camp and personnel travel to and from the region on a roster system, the economic benefits to the region can be hardly noticeable (disposable income tends to be spent where personnel travel to the camp from – often outside the region). Where a workforce is more integrated into the region, disposable income can provide a short-term positive impact on local businesses.

Regional economic multipliers are a standard way to identify the potential effects of a major change in a region's economy by approximating economic changes and flow on effects resulting from an initial project investment. The Great South Coast, which contains the Corangamite Shire, applies a multiplier of 1.9 to new investment dollars spent in the region to obtain an estimate of indirect economic benefits (GSC, 2008).

The regional economic multiplier is applied to the estimated direct investment to be made in the local region. As described in Section 4.2.1.2 Capital Investment an accurate estimation of expenditure on construction related activities in the local region cannot be made until decisions are taken on the main construction contracts and sub-contracting arrangements. Section 4.2.1.2 Capital Investment sets out three scenarios based on the proportion of construction related regional expenditure with a range of \$30.25 million - \$72.5 million. Applying the regional economic multiplier of 1.9 to these scenarios provides an estimated economic benefit for the region in the range of \$57.5 million – \$138 million.

4.2.2.1 Indirect Employment Opportunities

Indirect employment opportunities are likely to be generated within the Corangamite and Golden Plains Shires and the surrounding region as a result of the proposed Berrybank wind farm

development. Indirect employment opportunities may arise through the provision of goods and services to the project. Additional effects may arise from possible family relocation for the construction period (increased demand on/for local services i.e. health services, schools, child care, recreational facilities) and indirect benefits for local businesses such as retail stores, hospitality and entertainment venues particularly during construction.

As noted previously, expenditure of a proportion of wages of personnel associated with Berrybank wind farm may also encourage local business growth and thus generate indirect employment opportunities as a result of businesses adapting to the increased demand for goods and services.

Employment secondary effects can be estimated using employment multipliers which indicate the increase in employment that will be generated as a result of a given increase in demand. These multipliers generally apply to longer-term permanent jobs (such as those during the proposed project's operational life), as opposed to during short-term construction activities. Employment multipliers used for similar developments are commonly applied at approximately two indirect jobs for each direct job created. Using this tool, it can be expected that the Berrybank wind farm development may create up to 50 indirect jobs during the operational life of the project.

4.2.2.2 Changes to land value

There is much debate over the impact of wind farm developments on surrounding property value and prices. There are limited Australian studies exploring this issue and outcomes are inconclusive. American reviews have indicated a positive impact on property prices in areas which a view of the wind farm (known as the 'view shed') (Sterzinger, 2003). Factors that may reduce interest in properties in the view shed, such as noise and visual impacts, may lead to a decrease in land prices. This is more of an issue for residential blocks rather than agricultural land. Impacts to the property market are primarily experienced during construction and commissioning of wind farms and once a wind farm is established, there appears to be little to no adverse impacts on land prices (Offor Sharp & Associates, 2003).

Although the issue of land devaluation is frequently raised as an issue in relation to wind farm planning, there is a strong precedent in keeping this issue separate from planning decisions and approvals (URS, 2007).

4.2.2.3 Visual and noise impacts

Visual impacts may be experienced for a significant distance from the wind farm, and may influence land value, tourism and future economic growth depending on attitudes toward the development. Issues such as blade glint and shadow flicker from the blades could negatively impact upon those within the view shed of the wind farm. Visual impacts may deter future investment in the area, particularly related to residential or tourism investment. However research indicates that reductions in land value are associated more with wind farms in the planning and development stages. Once this uncertainty is removed, land values in areas of an operational wind farm appear to experience limited or no adverse impacts (Offor Sharp & Associates, 2003).

Potential noise impacts related to the Berrybank wind farm are associated with the construction phase and this type of impact is considered as temporary. Construction related noise includes traffic, construction machinery and the presence of a construction workforce. Ongoing noise from the turbines during operations is often a major concern of residents close to wind farm developments and the perception of intrusive noise may deter future growth in the area.

Wind turbines are rotating machinery, and thus emit some sound. The sound usually heard is the whooshing of the rotor blades as they pass the tower. Steady design improvements since the 1980s mean that modern wind farms elicit very few noise complaints. A modern turbine at 350 m is about as audible as the background noise of a quiet bedroom. Wind turbines are usually located in rural environments where the ambient noise is very low and peace and quiet are often an important part of the amenity of the area. Noise limits are therefore usually set at a fairly low level such as 35 or 40 dB(A) (Sustainability Victoria, 2007).

Although it is possible that visual and perceived noise impacts could deter future growth in the area and thereby have negative economic impacts for the region, research and the experience from other wind farm developments suggest that such adverse impacts are unlikely to have a long-term negative impact once the wind farm is operational. It is also noted that a buffer distance of more than 1 km between a wind turbine and the nearest non-participating house will be in place.

4.2.2.4 Tourism impacts

Corangamite Shire is home to the 12 Apostles, the Great Ocean Road, some of the best inland lakes in Victoria and Mount Elephant. Due to these natural features and being only a 2 hour drive from Melbourne, the region has a vibrant tourism industry (GSC, 2007). Many of the iconic tourism attractions within this region are coastal attractions and are a significant distance from the proposed wind farm development at Berrybank.

Within the Golden Plains Shire, a well-established gourmet food and growing wine sector attracts tourists to the wine regions including the Moorabool Valley. Other tourist attractions in the Shire are based on the region's natural beauty and landscape including rolling green hills, canola fields, rugged bush landscapes and historic gold mining towns. The Brisbane Ranges, Enfield State Forest and the Steiglitz Historic Park are popular attractions within an emerging day trip tourism market (Golden Plains Shire Council, 2007).

Development of the proposed wind farm has the potential to affect the local tourism industry however it is difficult to predict the nature of impacts. Assessment of the influence of similar developments on tourism in regional areas has shown that both negative and positive impacts can occur. Depending on the attitude of the tourist, the wind farm may in fact be an attraction itself or contrastingly there may be a slight reduction in activity on a small number of farms in sight of the wind farm that provide home stay holidays, particularly during the construction phase (Offor Sharp & Associates, 2003). Ultimately the economic impacts on the local tourism industry resulting from the wind farm development are likely to be minimal and the regions principal tourist attractions are unlikely to be negatively impacted.

4.2.2.5 Population impacts

The Berrybank wind farm is unlikely to have a significant impact on the local or regional population. Population increase through employment related migration to the project area may temporarily occur during the construction phase of the proposed wind farm, particularly if local resources cannot meet project labour demands and significant numbers of workers are sourced from areas outside the project area. Any change in population will depend on where labour is sourced from and whether the workforce will commute from outside the region, or whether they will relocate to the project area and surrounding districts.

If a large proportion of the construction workforce migrates to the project area, this population increase will provide temporary economic benefits to the area. As described in sections 4.2.1.1 Employment and 4.2.2.1 Indirect Employment Opportunities, it is estimated that 25 full time permanent jobs will be created during operations, with a further estimate that up to 50 jobs would be created in the region through indirect impacts from the project. Depending on whether these jobs are filled from the local population or from outside will influence the degree of population growth over the longer term. If employment growth of this extent was experienced and families moved to the region to take up these positions, the population growth, whilst small, would be noticeable particularly in towns such as Lismore which have experienced population decline and ageing in recent years.

It should also be noted that any material increase in the population of Berrybank or surrounding districts, even if restricted to the 12 – 14 month construction period, may increase the demand on physical and social infrastructure and services. These impacts can include health and education services, accommodation, community services and utilities including power, water, sewage and waste. A region's ability to meet the increased demand will depend on the existing services and capacity, and the impact of the project. The scope of this socio-economic analysis does not include an assessment of these impacts and it is recommended that Union Fenosa Wind Australia should work with the Shire Councils to discuss the impacts on facilities and services as the project progresses towards construction.

4.2.2.6 Increased demand for manufacturing and servicing capabilities

In recent years, the national and international debate about quantifying and addressing the impacts of climate change has sharpened the focus on the renewable energy sector. At a national, state and local level there have been considerable advances in technology, supported by policy changes, to exploit alternative, renewable energy sources.

The proposed Berrybank wind farm development is one of many wind farm developments under consideration. The proposed Berrybank wind farm development will contribute to the need to increase manufacturing capacity in Australia for the fit out of wind farms during their whole life cycle (manufacturing of blades, towers, nacelles, turbines and ancillary equipment), creating a demand for new businesses and additional jobs in the repair and maintenance of wind farm equipment.

The Australian Conservation Foundation and the Australian Council of Trade Unions released the discussion paper "Green Gold Rush – How Ambitious Environmental Policy Can Make Australia a Leader in the Global Race for Green Jobs" in October 2008. The report estimates the potential growth in renewable energy jobs. The discussion paper states that with a 'clean green growth scenario', by 2030 there could be in the order of 375,000 jobs in the renewable energy sector (Australian Conservation Foundation and the Australian Council of Trade Unions, 2008). These jobs would be created in occupations including builders, electricians, technicians, installers, engineers and project managers. Employment growth of that scale would be a significant boost to the national economy and projects such as the proposed Berrybank wind farm development further these objectives.

4.2.2.7 Community investment

Previous development projects in regional communities have been associated with the financial support of sporting clubs, community organisations, volunteering groups and developments of

community trusts. This type of support will provide small boosts to the local economy and important support for the rural community.

Union Fenosa Wind Australia has expressed interest in supporting local community organisations in the Berrybank area. The activities of Union Fenosa are not limited to planning and development, but extend to operating the wind farms with a view to becoming a long-term member of the community. With this in mind, Union Fenosa Wind Australia is exploring ways to contribute to the local community, beyond the benefits of short-term and long-term job creation.

Through their website and community newsletters, Union Fenosa Wind Australia has invited the local community to contribute ideas for how contributions to the local community can be made in a lasting and meaningful way (UFWA, 2008). In 2008, following representation from the local community, Union Fenosa Wind Australia made a \$5000 contribution to the Cressy Bowls Club to support bowling green upgrades. Union Fenosa Wind Australia is continuing to assess local investment projects in consultation with the local community.

4.2.2.8 Road Upgrades

The construction of approximately 100 wind turbines on agricultural land will require the mobilisation of heavy vehicles in the Berrybank region to deliver plant to the development sites. To support the construction of the proposed Berrybank wind farm, a number of key roads in the Berrybank region will be upgraded.

The road upgrades will deliver benefits to the project in assisting the efficient and reliable transport of personnel and construction material. There are likely to be non-project related benefits from the road upgrades to the township of Berrybank and the surrounding district. It is likely that the upgrade of roads in the region will provide for more reliable and more efficient transport of agricultural commodities out of the region. The improved road conditions may also provide community benefits in terms of improved road safety, and reduced vehicle maintenance costs associated with travelling on poor roads.

Any road safety benefits associated with improved road conditions would have to be considered in the context of increased traffic and the likelihood of an increased presence of heavy vehicles in the project area. An analysis of project traffic impacts has not been undertaken for this socio-economic characterisation.

5. SOCIAL AND POLICY OBJECTIVES

It is important to have an appreciation for the social and policy context in which the Berrybank wind farm is being proposed. This chapter will identify the relevant social policy objectives of the region and the Shires of Corangamite and Golden Plains and identify how the proposed wind farm development can complement and enhance these policy objectives.

5.1 Corangamite Shire Council – strategic and policy objectives

5.1.1 Corangamite Shire – Council Plan 2005 to 2009 (2008 revision)

The Corangamite Shire Council Plan 2005-09 lists strategic objectives, strategies and actions in the areas of the built, social, economic and natural environments. Developed and reviewed in consultation with the community, the Council Plan is a key document in setting out the policies and plans for 2005 – 2009. Subject to the necessary approvals, the construction of the proposed Berrybank wind farm is expected to commence in the 4th quarter of 2010. The Council Plan for years beyond 2009 is currently in development following a period of community consultation.

The vision of the Corangamite council is to:

- Be leaders in community management.
- Plan and facilitate economic and social development to enhance quality of life and secure a sustainable environment.
- Provide accessible and quality services and facilities through accountability, transparency and good management.

The plan outlines five strategic objectives, within which sit a number of strategies:

- To enhance governance, human resources, financial and information management systems and achieve best practice.
- To meet community needs for services and programs and support and nurture our volunteers.
- To provide and maintain roads, buildings and other assets to meet the needs of current and future generations of people who live and work here.
- To protect and enhance our environment by using and promoting good waste management and environmental management practices.
- To sustain quality of life by working with our community to strengthen the economy and proactively plan for the future.

Of particular relevance to the proposed development, this vision sets the Shire's commitments to sustainable economic and social development.

Economic development

The Corangamite Shire Economic Development Strategy was released in April 2007. The vision of the Economic Development Strategy is *“to increase the population of the shire whilst striving for the continuation of sustainable communities within the existing township structures to ensure an enjoyable quality of life by working with business and the community”* (CSC, 2007a).

The Shire’s strategies for economic development are developed in the context of sustainable development in which economic, social and environmental considerations support the Shire’s decision-making processes.

The key objectives of the Economic Development Strategy are to:

- Maintain and improve the viability of communities by attracting and retaining people to live and positively contribute to the quality of life in the shire.
- Provide conditions for existing business to expand and new business to invest and generate employment in the shire.

Of relevance to the proposed development, the Economic Development Strategy outlines the opportunities for growth and sets out the Council’s desire for new investment and support for existing and expanding businesses in the region’s towns and rural areas. The strategy outlines specific actions to support sustainable economic development, including actions to ensure that communities benefit from energy industry investment, and actions to encourage sustainable investment in renewable energy sources.

Environment strategy

The Corangamite Shire states that it is committed to the development and operation of both the community and Council assets in an environmentally sustainable manner. The Corangamite Shire Environment Strategy 2007 sets a number of goals and actions in regard to the management of the natural environment (CSC, 2007b). The goals of the strategy are:

1. Comply with environmental legislation, regulation and any voluntary commitments Council undertakes.
2. Conserve and enhance Corangamite’s native flora and fauna.
3. Recognise the importance of our waterways and coasts and assist in their protection.
4. Promote a culture of environmental responsibility among our employees, contractors and the community and ensure all are aware of their environmental obligations.
5. Protect and preserve valuable public open space areas.
6. Protect and enhance both Indigenous and Non Indigenous Heritage.
7. Minimise negative environmental impacts caused by Council assets and operations.
8. Use and purchase office and construction materials in an efficient and environmentally friendly manner.
9. Monitor and evaluate Council’s environmental impact, while making cost effective changes to reduce this impact.
10. Reduce the occurrence of pollution events and minimise their impacts.

11. Encourage the sustainable use of resources and sustainable land use.
12. Reduce Greenhouse Gas emissions created by Council and actively assist the community to reduce emissions.
13. Encourage and support community involvement in the conservation of our environment.

Tourist use and development

Tourism development in Corangamite Shire is inextricably linked to the quality of natural and cultural attractions. The management of the assets on which the industry relies is a major contributor to tourism development.

The objectives of the Council with regard to tourism development are:

- To support quality tourist development in association with the landscape and the heritage values of rural and urban areas.
- To promote coastal related use and development to be focused in the towns of Port Campbell and Princetown.
- To encourage tourism development related to agricultural and other rural based industries.

5.2 Golden Plains Shire Council – strategic and policy objectives

The following sections outline the relevant policy context and framework for the Golden Plains Shire, including its interaction with the broader region.

5.2.1 The Golden Plains Shire Council Plan – 2007 – 2011

The Golden Plains Shire Council Plan is a key document in setting out the council's policies and plans for 2007 – 2011. The plan is developed in consultation with councillors, staff and the local community (Golden Plains Shire Council, 2007).

The Council Plan articulates the vision that *“Golden Plains Shire offers a lifestyle and opportunities that foster social, economic and environmental wellbeing. In partnership with the community, we will provide strong leadership, encourage sustainable development and ensure quality services, to continue to improve the quality of life of residents”* (Golden Plains Shire Council, 2007].

The Council Plan sets out the mission of the Shire Council and covers policy and service areas including:

- Responding to population growth and demographic changes.
- Economic development.
- Access to education, employment and other human services.
- Respect for the environment and cultural significance and heritage.
- Orderly planning and land use.
- Support for the agricultural industry and sustainable farming practices.

The plan sets nine key result areas:

- **Citizen and customer service:** To foster a culture across the organisation which addresses the needs of the community through communication and the provision of excellent customer service.
- **Civic leadership:** To enhance Council's decision making capacity by strengthening the governance and advocacy of Council.
- **Economic development:** To facilitate the growth of the local economy particularly in township development and rural based industries.
- **Environment and land use planning:** Encourage and facilitate sustainable land use and development and protect and enhance the natural environment.
- **Financial management:** To ensure the efficient and effective allocation of resources through sound financial planning and management, that secures the long-term financial viability of the municipality.
- **Human support services:** Provide a range of sustainable human support services that maintain or enhance the well being and quality of life of Golden Plains' residents.
- **Recreation and community development:** To facilitate the provision of a range of recreation facilities across the Shire and assist the community committees to best service their communities and to continue to enhance our townships through Town Place Plans.
- **Roads and streets infrastructure:** To maintain and enhance the road network at a level that adequately satisfies transportation needs.
- **Waste management:** Continue to provide the current satisfactory garbage bin and recycling bin collection disposal service.

Of particular relevance to the proposed development, the Council Plan sets the Shire's commitment to regional and rural economic development and sustainable land use and environmental management.

5.2.2 Economic Development Strategy

The Golden Plains Shire Council's Economic Development Strategy 2007-12 aims to grow local business and jobs by improving the elements of economic productivity underpinning performance; labour, land, capital and technological knowledge (Golden Plains Shire Council, 2008).

The Economic Development Strategy provides direction and action in the areas of water supply and infrastructure; industry co-operation leading to enhanced capability, skills and knowledge; improved co-ordination and promotion of tourism experiences and the identification and development of land for employment.

Key directions underpinning the Economic Development Strategy include:

- Secure water infrastructure and supply for economic activity.
- Continue to facilitate business and industry cluster groups based on the successful community development model.
- Create and implement a Tourism Master Plan for the Golden Plains Shire.
- Facilitate the development of land that will lead to employment in the shire.

5.2.3 Community Environment Strategy

The purpose of the Golden Plains Shire Community Environment Strategy and the Environment Implementation Plan is to set the direction and activities associated with achieving best practice environmental management across the Shire.

The Community Environment Strategy identifies the following key elements, under which a vision and goals are established:

- Rural environment
- Natural and waterway environment
- Waste management
- Air quality
- Energy
- Heritage
- Fire management
- Tourism
- Human settlement

5.2.4 G21 Geelong Regional Alliance

G21 is the alliance of a variety of independent organisations with a shared vision for the Geelong region. Golden Plains Shire is a member of the alliance, along with the municipalities of Colac Otway, Greater Geelong, Queenscliff and Surf Coast, the Victorian Government and more than 150 community and business organisations. The alliance is focused on securing a sustainable future for the region (Geelong Regional Alliance, 2007).

G21 is a regional community capacity building model that provides a forum to discuss 'big picture' regional issues across interest groups and municipalities and to deliver projects that benefit the region and cross municipal borders.

The G21 Geelong regional plan outlines the following five key directions to respond to identified challenges such as climate change, population growth and land use:

- Direction 1: Protect and enhance our environment.
- Direction 2: Create sustainable settlements.
- Direction 3: Strengthen our communities.
- Direction 4: Refocus our economy.
- Direction 5: Make it happen.

Under each of these direction statements, policies are established to meet the identified challenges (Geelong Regional Alliance, 2007).

5.3 Opportunities to Support Strategic and Social Policy Objectives

The proposed Berrybank wind farm development supports and reflects a number of state and local social and policy objectives. Generally these policies cover a range of objectives centred on economic development, environmental management, tourism and agriculture.

5.3.1 Employment policy objectives

Stimulating local employment opportunities is a key strategic objective for the Shires of Corangamite and Golden Plains, and for the broader region and State. As described in Section 3 Demographic and Economic Profile, the predominant employer of people in the region in which Berrybank is located is agriculture, with the manufacturing and retail trade sectors also significant employers, particularly in the Golden Plains Shire.

As detailed in Section 4.2.1.1 Employment, Union Fenosa Wind Australia is anticipating a construction workforce of 240 full-time equivalent positions and an estimated operational workforce of 25 permanent full time employees.

Secondary or flow-on jobs created by the increased demand for the supply of goods and services to the development are expected to increase economic activity in the broader community. The increase workforce participation in the region will also stimulate other sectors of the economy, for example the services industry.

Union Fenosa Wind Australia has indicated a commitment to preferentially employing a workforce from within the region surrounding Berrybank wherever practicable. The potential for direct and indirect employment opportunities clearly support local, regional, state and national objectives to increase workforce participation and create employment opportunities.

5.3.2 Economic development policy objectives

The proposed Berrybank wind farm development directly supports the Corangamite and Golden Plains Shire Council's strategic and policy objectives for economic growth and development. As described in Section 4.2 Economic Impacts, the proposed Berrybank wind farm development will provide a range of direct and indirect economic impacts for the town of Berrybank and the broader region.

In most cases the wind farms are located on cleared grazing land or land being used for agricultural activities where the wind turbines will be able to operate compatibly. Once the construction of the wind farms commences, the land owners associated with the projects will receive direct financial benefits in the form of rental payments. This additional income will help diversify the economic base of the local economies in each region and will enable them to better withstand agricultural commodity price declines, droughts and other types of negative shocks to the agricultural sector.

In specific terms, the Berrybank wind farm development supports and complements the following economic strategies and policies of the Corangamite and Golden Plains Shires and broader region.

Corangamite Shire Economic Development Strategy 2007

The Corangamite Shire Economic Development Strategy welcomes and encourages new investment and increased economic activity in the region, and supports existing and expanding businesses. The development of the Berrybank wind farm supports this strategic objective by a large capital investment in the region. As described in Section 4.2.1.2 Capital Investment, the estimated capital investment in the region is the order of \$30.25 million - \$72.5 million depending on the construction contracts established. Applying an economic multiplier to allow for economic

flow on effects, the total economic benefit is estimated to be in the order of \$57.5 million to \$138 million.

The Economic Development Strategy includes specific actions to achieve sustainable communities, including to “strive to ensure that our communities benefit from energy industry investment” and to “encourage sustainable investment in renewable energy sources”. The development of the Berrybank wind farm is directly aligned to this objective as it represents significant industry investment and a significant increase in the presence of renewable energy projects in the region (CSC, 2007).

Golden Plains Shire Economic Development Strategy 2007 – 2012

The Economic Development Strategy sets an objective to promote land use to encourage employment growth. The proposed Berrybank wind farm development will utilise cleared grazing land or land being used for agricultural activities for the location of the turbines. The concurrent use of this land for wind farms and agricultural activities is consistent with the goal of encouraging land use that will stimulate employment growth (Golden Plains Shire Council, 2008).

5.3.3 Environmental policy objectives

The proposed Berrybank wind farm development directly reflects the local, state and national planning schemes and strategies to address climate change and reduce greenhouse gas emissions. The proposed Berrybank wind farm development will displace approximately 911,000 tonnes of carbon a year – the equivalent to taking 210,000 cars off the road. It is estimated that the wind farm development will supply approximately 171,000 houses with electricity (figures based on data from Sustainable Energy Authority Victoria, 2003).

In specific terms, the Berrybank wind farm development supports and complements the following environmental management strategies and policies of the Corangamite and Golden Plains Shires and broader region.

Corangamite Shire Environment Strategy 2007

The Corangamite Shire Environment Strategy sets specific goals and actions regarding the management of the natural environment. The goals of the strategy include encouraging the sustainable use of resources and sustainable land use and achieving a reduction in greenhouse gas emissions associated with council and community activities. The strategy includes a specific action (Number 106) to encourage the use and development of green energy within the community and Council (CSC, 2007b).

The proposed development of the Berrybank wind farm will directly support the Council goals and objectives related to greenhouse gas emissions and the development of renewable energy sources.

Golden Plains Shire Community Environment Strategy

The Community Environment Strategy identifies a number of key elements, under which a vision and goals are established. One of the strategy's elements relates to energy under which sits the vision of “*Minimise resource wastage by promotion of energy conservation measures and renewable energy sources*”. The goals established within the strategy relating to energy are:

1. To encourage the efficient use of energy through practical application and demonstration.

2. To improve community awareness of energy efficiency and resource use opportunities.
3. To promote the use of appropriate renewable energy technologies.

The strategy articulates that one of the main issues for consideration is the investigation of alternative energy sources. The strategy provides that the *“development of wind farms in Golden Plains Shire should be investigated either on a commercial scale or as a viable alternative for individuals who do not have access to a mains supply”*.

The proposed development of the Berrybank wind farm will directly support the Council goals and objectives related to the use of energy and the investigation of alternative energy sources.

G21 Geelong Regional Alliance

The G21 Geelong regional plan outlines five key directions to respond to identified challenges such as climate change, population growth and land use. Direction 1 is to “Protect and enhance our environment”.

Under this broad direction, five key policy statements are established:

- 1.1 Respond to the challenges of climate change.
- 1.2 Use our water resources more efficiently.
- 1.3 Maintain and restore our natural assets.
- 1.4 Reduce our everyday environmental impacts.
- 1.5 Demonstrate environmental leadership.

The proposed development of the Berrybank wind farm is relevant to these policy statements, particularly policies 1.1, 1.4 and 1.5 (Geelong Regional Alliance, 2007).

The policy direction of responding to the challenges of climate change makes reference to energy supply and demand and establishes energy conservation as a regional priority. The policy seeks to exploit the ideal circumstances for the generation of wind power and to capitalise on the region’s natural features which could lessen dependence on non-renewable external energy sources.

The policy direction of reducing everyday environmental impacts makes reference to renewable energy and states that the region’s dependence on non-renewable energy must be addressed for environmental, social and economic reasons. The policy directive states *“solar, wind, geothermal, tidal, biofuel and waste power generation options require increased regionally specific research, development and support”*. The policy statement recognises that success in this area will require collaboration of local, state and federal government, statutory authorities, industry, private sector and residents.

The policy directive further states that developments in these areas should be associated with increased stakeholder engagement activities to convey the benefits of transition to renewable energy, including strengthening the region’s position in a future carbon trading economy and minimisation of climate change impacts.

The proposed development of the Berrybank wind farm is directly relevant to the policy directives outlined above set by the G21 Geelong Regional Alliance.

5.3.4 Agricultural policy objectives

Agriculture is the predominant industry base in the Corangamite and Golden Plains Shires and a key driver of the regional economy. The regional and local planning schemes and the policies established to underpin these schemes outline the protection of agricultural land and activities.

The lease of agricultural land for the Berrybank wind turbines would diversify and enhance the income base of local farmers whose land is used to host the turbines. Wind turbines are generally regarded as having a minimal impact on farming operations other than during the construction phase when construction sites are fenced and access to some land is restricted. The additional land rental income source for landowners will assist in minimising the impact of commodity fluctuations and unfavourable farming conditions.

The impacts on land use will be more pronounced during the period of construction. Once constructed, the presence of the proposed Berrybank wind farm development is not expected to materially impact on agricultural activities in the project area. The project is consistent with the objectives of using agricultural land for other income and employment generating activities that are compatible with agriculture.

5.3.5 Tourism policy objectives

As described in Section 4.2.2.4 Tourism Impacts, tourism is a significant driver of the regional economy in the Corangamite and Golden Plains Shires. The region is renowned for its natural beauty and landscape and has some of Australia's most highly regarded coastline and tourist icons such as the 12 Apostles and the Great Ocean Road. The importance of tourism within the region is reflected in the objectives and action plans of the Corangamite and Golden Plains Shires. Tourism development and capitalisation are key strategic drivers for the Shires.

Section 4.2.2.4 Tourism Impacts indicates that the proposed Berrybank wind farm development has the potential to generate positive and negative impacts on the tourism industry. There is potential for attraction of some tourists due to an interest in the development of green energy, and this may link to an increase in eco-tourism activities in the project area. Codrington Wind Farms, Port Fairy, Victoria, offers tours of their facilities and some of the surrounding local farms.

It is unlikely that the presence of the Berrybank wind farm will deter travel in the region and given its location will not deter tourists from travelling the Great Ocean road.

6. COMMUNITY CONSULTATION

This section provides an overview of the consultation activities undertaken to date in regard to the proposed Berrybank wind farm development. Coffey Natural Systems has not been involved in the development and facilitation of the community consultation program and has conducted only a limited, desk top review of the consultation program's activities and the issues raised by stakeholders.

6.1 Stakeholder identification

The stakeholder consultation program undertaken for the proposed Berrybank wind farm development has involved various consultation mechanisms with interested stakeholders.

Union Fenosa Wind Australia developed a methodology for identifying key stakeholders based on two approaches – harnessing the local knowledge of local representatives and a geographical based stakeholder analysis. At the core of the methodology was engagement with elected representatives across the three tiers of government.

The project team identified relevant Federal Members of Parliament, members of the Victorian Legislative Council and Legislative Assembly and each of the Shire Councils. The project team met with these elected representatives in formal meetings and, where possible, the team also engaged directly with riding councillors. In each instance these stakeholders/stakeholder groups were specifically asked who else in the community were important to engage.

Complementing the engagement strategy for elected officials, a geographical based stakeholder analysis of the proposed project site was conducted. This analysis identified landowners proposed to accommodate turbines, landowners in proximity to or directly adjoining turbine host properties, key local townships of importance and the wider community.

6.1.1 Government stakeholders

Union Fenosa Wind Australia has identified a number of local, state and federal government agencies as key stakeholders to the project. These stakeholders include:

- Elected Councillors and executive management from the Corangamite Shire – local government.
- Elected Councillors and executive management from the Golden Plains Shire Council – local government.
- The Victorian Government Department of Sustainability and Environment (DSE) – the lead government agency for sustainable management of water resources, climate change, bushfires, public land, forests and ecosystems.
- Sustainability Victoria – a Victorian Government statutory authority with responsibilities to deliver the Government's environmental sustainability policies and programs.
- Victorian Department of Planning and Community Development – established in August 2007 to lead and support the development of liveable communities and delivering Government commitments to sustainable improvements in urban planning and development.

- VicRoads – a Victorian statutory authority responsible for the management of the Victorian arterial road network and its use.
- VicTrack –Victorian Rail Track is the custodian of strategic rail corridor assets across metropolitan Melbourne and provincial Victoria, with responsibility for asset protection and management.
- Victorian Country Fire Authority.
- Civil Aviation Safety Authority.
- Airservices Australia – government-owned corporation providing air traffic control management and related airside services to the aviation industry.
- Commonwealth Department of Defence.
- Commonwealth Department of the Environment, Water, Heritage and the Arts.

In addition to these stakeholder groups with direct interest in the Berrybank wind farm development, Union Fenosa Wind Australia representatives also met with the Moyne Shire Council. None of the proposed turbines in the Berrybank development are located in the Moyne Shire however the Shire is the location of the proposed future development at Darlington.

Union Fenosa Wind Australia and consultants acting on their behalf have met on numerous occasions with local and state government representatives to discuss the proposed Berrybank wind farm development. Table 6.1 summarises these government meetings and the key issues discussed.

6.1 Summary of Meetings with Government Stakeholders

Date	Consultation Forum	Matters Discussed
8 October 2007	Meeting with Golden Plains Shire Council	<ul style="list-style-type: none"> • The project should engage with adjoining farmers as good source of information regarding the land and regional issues. • The potential impacts on the brolgas in the Berrybank region – brolgas are designated by the Department of Sustainability and the Environment as a vulnerable species. • The potential application of the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>. • Recommendation for community engagement to include press advertisements in the Ballarat Courier, Geelong Herald and Colac Herald, as well as school newspapers and local community news. • Recommendation to keep consultation local and relevant to the project area.
8 October 2007	Meeting with Corangamite Council	<ul style="list-style-type: none"> • Potential impacts on poultry farm and broiler farm in Berrybank. • The implications of raised bed cropping on the impacts of wind farms. • The issue of salinity increasing in the area. • It was recommended that the old school in Berrybank would be suitable for community sessions and meetings. • Emphasised that a development of this nature required engagement with all Council departments.

6.1 Summary of Meetings with Government Stakeholders (cont'd)

8 October 2007	Meeting with Moyne Shire Council.	<ul style="list-style-type: none"> • The removal of native vegetation removal requires consideration and management. • Emphasised the need to consult with VicRoads in regard to traffic management and road infrastructure. • Discussion about the most appropriate methods of consultation for the local community and that it be tailored to an agricultural and farming region. • Emphasised the importance of timely notification to the community once planning applications are lodged. • Discussion regarding the potential for positive impacts on the local workforce and employment. • Discussion regarding local facilities, accommodation and services. • Potential visual impacts and design features to minimise adverse impacts.
9 October 2007	Wind farm conference, discussion with DSE member, and Sustainability Victoria.	<ul style="list-style-type: none"> • Emphasised that DSE want a strategic focus in the planning application and that cumulative impacts should be adequately assessed. • Encouraged project developers to take account of previously approved wind farms. • Consider fauna and bird impacts and address areas that birds do not travel through. Position turbines away from nesting sites and known travel routes. • Need to consider and address risks of extinction of species and loss of birds.
7 November 2007	Meeting with DSE EES officers.	<ul style="list-style-type: none"> • Discussion regarding the approach to specialist studies including biodiversity, heritage and visual impacts. • Emphasised the importance of addressing cumulative effects resulting from concurrent development projects.
7 November 2007	Meeting with Corangamite Councillors.	<ul style="list-style-type: none"> • Councillors discussed the status of other wind farm proposals and indicated that the Newfield Wind Farm would be considered by council on 19 December 2007. • Emphasised the importance of communication in the region, including through newsletters in Cressy and Lismore. • Encouraged that consideration be given to vital community projects vital such as the Lismore streetscape works and the Berrybank Hall. • Discussion regarding bush fire concerns in Berrybank and surrounding districts and the need to fully consider and mitigate against these risks.
14 January 2008	Phone conversation with DSE.	<ul style="list-style-type: none"> • Confirmation that the proposed Berrybank wind farm does not require the preparation of an Environmental Effects Statement.

6.1 Summary of Meetings with Government Stakeholders (cont'd)

17 June 2008	Meeting with DSE members, flora and fauna section	<ul style="list-style-type: none"> • Discussion regarding the approach to specialist fauna and flora surveys including roadside native vegetation in Berrybank, spring survey of the grass frog and a broлга breeding study Level 2. • DES explained approach is to aim for zero net impact: risks from wind farms are to be balanced with mitigation/offset measures.
23 October 2008	Meeting with Department of Planning and Community Development , Grampians region	<ul style="list-style-type: none"> • Berrybank site sits half in DPCD Ballarat and half in DPCD Geelong. • Discussion of future approach to engagement with DPCD.
13 January 2009	Meeting Corangamite Council	<ul style="list-style-type: none"> • Discussion regarding bush fire concerns in Berrybank and surrounding districts and the need to fully consider and mitigate against these risks. • Council discussed some concerns from the community regarding the approach to consultation. • Council discussed the need to consider and address potential social impacts associated with the development project. • Council suggested that a community reference group may be a productive way in which local issues can be heard and addressed.

6.1.2 Landowners and community

During initial concept and strategy development, Union Fenosa Wind Australia identified Berrybank as a region to be investigated for a commercial wind farm. Union Fenosa Wind Australia approached a landowner in the Berrybank area with a proposal to host a monitoring station to assess the suitability of the area and determine whether there was an adequate and consistent wind resource to support a commercial wind farm.

After several years of monitoring on this property it was determined that the wind conditions were favourable for development. After this was determined, Union Fenosa Wind Australia commenced consultation with adjacent neighbouring property owners to establish their interest in being involved in the proposed wind farm. If those landowners were interested in participating in the project, a subsequent neighbour was approached to determine interest in the project. This process continued and was premised on the requirement for a continuous area of land on which turbines would be hosted. In a commercial wind farm, it is not practical or commercially viable to have large gaps in the project boundary. A sufficient and continuous area of land was required to support the approximate number of turbines required to justify the cost of the network grid connection and make the project economically feasible.

Union Fenosa Wind Australia has a policy of full community consultation about the proposed wind farm, but was only able to commence the consultation activities when the commercial negotiations were completed and wind testing indicated a viable project. The discussions with landowners over leasing arrangements were, as with all wind farm and other large commercial projects involving numerous owners, necessarily confidential. It would be inappropriate to conduct discussions about sensitive commercial terms in a public manner.

Once a suitable land area is established and landowners agreements in place, wind testing commences which takes approximately three years. Until this stage is completed, the project may not proceed, and there are many wind farms that have not proceeded because testing has shown insufficient wind resources. Union Fenosa Wind Australia believes it is inappropriate to commence a community consultation process until the project has some certainty.

Broader consultation was also undertaken with identified stakeholder communities in Berrybank, Lismore and Cressy. These consultation activities included engagement with the Lismore Chamber of Commerce and the Cressy Bowls Club. The project team also identified representatives of aboriginal people in the region as an important stakeholder group.

6.2 Consultation Activities

In addition to the engagement activities involving government stakeholders and landowners described in the preceding section, community wide engagement activities were conducted to provide information about the proposed development.

6.2.1 Newsletter briefing

A newsletter was prepared giving preliminary details of the proposed Berrybank wind farm development and a map of the proposal. The newsletter introduced Union Fenosa Wind Australia and also included the scope of issues to be explored by the project team. The newsletter, along with ads in two regional papers, also announced the information day at Berrybank Hall. Additionally, contact details were provided for telephone, post, email and internet through which people could contact Union Fenosa Wind Australia and seek information or raise concerns.

Over 750 newsletters were distributed within a radius of 20 kilometres from the proposed development including residents living in Berrybank and the townships of Lismore and Cressy. It was subsequently posted on the Union Fenosa Wind Australia website.

Union Fenosa Wind Australia has indicated that there will be subsequent newsletters distributed as the project moves to construction and operation, marking key milestones along of the project's lifecycle.

6.2.2 Website and information line

Union Fenosa Wind Australia provides information to the public on approved and proposed wind farm developments via the website www.unionfenosa.com.au. The website also provides information on wind energy, renewable energy targets and information about the company history and structure. In regard to the proposed wind farm development at Berrybank, the website posted the November 2008 Newsletter briefing that provided a project update and key information about the development (see section 6.2.1 Newsletter Briefing). The website was also used to provide advance notice of the November 2008 Community information day (see section 6.2.3) and the February 2009 door-knock consultation process (see section 6.2.4 Program of farm and home visits).

The website contains an email inquiry service through which the public can send an email to Union Fenosa Wind Australia and seek information about the project or raise concerns. The email

inquiry service allows for matters raised by the public to be responded to via an email from the company. The website also provides telephone contact details for Union Fenosa Wind Australia, including a 1800 free call number listed in the Berrybank project newsletter. Members of the public can make contact through this information line to seek out specific information, or to raise matters of concern regarding the project.

6.2.3 Community information day

Union Fenosa Wind Australia held a community information day in Berrybank on Saturday 22 November 2008. The information day was held at the Berrybank Hall from 2pm to 6pm. The purpose of the information day was to present details about Union Fenosa, wind farms and the proposed development. The community was encouraged to attend and meet the project team and to ask questions about the proposed development. Advance notice of the community information day was provided via the Union Fenosa Wind Australia website, community newsletter briefing sent to residents within a 20 kilometre radius of the project area in press advertisements in the *Ballarat Courier* and the *Western Plains Advertiser*. Email invitations were also extended to the Chief Operating Officers, Planning Managers, Mayors and Councillors of both the Shires of Corangamite and Golden Plains prior to the information day.

Berrybank residents and other interested persons attended the information day. Union Fenosa Wind Australia estimate that in the order of 50 people attended the information day, with 30 people signing the attendance register. Attendees at the community information day raised a number of issues with the proposed development and the likely impacts. Those issues included potential impacts on flora and fauna, concerns about safety and visual amenity, the impact on the community and the process to inform people about the development. Specific issues raised at the information day include:

- Community concerns about the equitable distribution of project benefits and the resentment felt towards landowners with wind turbines on their properties. Concerns were raised that these feelings had created a division in the community and impacted on long standing relationships in the community.
- Proximity of wind farm to non-host residents and buffer zones.
- Height of turbines and visual impact.
- Noise from turbines.
- The number of jobs that would be available for local people.
- The way in which the vulnerable brolga species would be potentially impacted and protected.
- Commitment to bushfire fighting by wind farm operator, and questions regarding fire management.
- Concern with the lack of transparent and early consultation with the community.

6.2.4 Program of farm and home visits

Union Fenosa Wind Australia responded to community concerns about the thoroughness of community engagement and extended the consultation program with a three day door-knock consultation process for the region in and around the proposed wind farm boundary. This program of farm and home visits was carried out by Union Fenosa Wind Australia representatives on 4 – 6

February 2009. Public advertisements about the door knock consultation program appeared in local newspapers including *The Western Plains*, *The Golden Plains Minor*, *The Ballarat Courier* and the *Warnambool Standard* on 22 and 24 January 2009.

Residents who responded to the advertisements organised a suitable time with Union Fenosa Wind Australia for the door-knock over the three days. All houses within 3 km of the wind farm were personally visited, regardless of whether a suitable time was previously arranged. In instances where the resident was not home, a 'sorry I missed you' note was left inviting the resident to call a mobile number to arrange an agreeable time. Along with the note, an information brochure about the wind farm was left at the property.

Survey design

The door knock consultation process asked residents a series of questions regarding their views of wind farms and potential impacts. The first question asked respondents to rate their general view of wind farms on a scale of 1 to 5, with 1 being 'negative', 3 being 'neutral' and 5 being 'positive'.

The subsequent series of questions explored respondent's views of a pre-determined list of potential impacts that could arise through the proposed development. For this series of questions, respondents were asked to rate their level of concern on a scale of 1 to 5, with 1 being 'not very concerned', 3 being 'neutral' and 5 being very concerned. The selection of the pre-determined impacts for investigation was based on issues raised in prior consultation activities for the project and in planning applications and assessments for similar developments. The survey asked respondents to rate their level of concern in the areas of:

- Noise.
- Visual impact.
- Shadow flicker.
- Land value.
- Bush fire hazard.

The final section of the survey invited respondents to ask questions or to comment on other areas of concern regarding the wind farm development.

Sample size and survey results

The two-person project team recorded data from a total of 69 properties. Of the 69 properties visited, residents at 28 properties (40.5%) were not home at the time or were 'not interested' and did not participate in the survey.

The opening question of the survey gauged respondent's general views of wind farms. Responses of either a 1 or a 2 indicating a negative view of wind farms have been interpreted as residents being concerned, and responses of a 4 or 5 indicating a positive view have been interpreted as residents being supportive. Table 6.2 provides the results of the surveys for question 1.

6.2 House and farm visit survey results – general views of wind farms

General view of wind farms	Number	% of total properties visited	% of survey respondents
Residents concerned	17	24.6	41.5

6.2 House and farm visit survey results – general views of wind farms (cont'd)

Neutral	7	10.1	17.0
Residents supportive	17	24.6	41.5
Not home / not interested	28	40.5	NA

Subsequent questions in the survey asked respondents to rate their level of concern regarding five pre-determined potential impacts. Table 6.3 provides the results of the surveys for these five impact areas.

6.3 House and farm visit survey results – pre-determined areas of concern

Pre-determined area of concern	People concerned	% of total properties visited	% of survey respondents
Noise	17	24.6	41.5
Visual impacts	17	24.6	41.5
Shadow flicker	16	23.2	39.0
Land value	12	17.4	29.2
Bush fire hazard	16	23.2	39.0

Respondents were asked to make any additional comments regarding the proposed Berrybank wind farm development. Table 6.4 demonstrates that the most common unprompted potential impact areas were fauna impacts and buffer zones.

6.4 House and farm visit survey results – unprompted areas of concern

Unprompted area of concern	People concerned	% of total properties visited	% of survey respondents
Fauna impacts (brolgas, wedge tail eagles, foxes, kangaroos)	15	21.74	36.5
Buffer zones	17	24.64	41.5

With small sample sizes such as this, caution should be taken in interpreting survey results. Nonetheless, the survey results strongly suggest that those respondents who are generally opposed to wind farms (17) have expressed concern at the majority of prompted impact areas and have also shared common views on the unprompted areas of concern. Seventeen respondents were concerned with noise and visual impacts, and 16 respondents were concerned with shadow flicker and bush fire hazards. The potential impact on land values was of concern to 12 respondents to the survey.

6.2.5 Summary of consultation activities

Table 6.5 summarises the consultation activities for each identifies stakeholder group.

6.5 Summary of consultation activities by stakeholder group

Stakeholder	Newsletter	Website	Ad in local paper	Personal meeting	Info Day	Door knock
Landowners	✓	✓	✓	✓	✓	✓
Neighbours	✓	✓	✓	✓	✓	✓
Local Government	✓	✓	✓	✓	✓	

6.5 Summary of consultation activities by stakeholder group (cont'd)

State Government Agencies and Members of Parliament		✓		✓		
Berrybank, surrounding communities	✓	✓	✓		✓	
Registered Aboriginal Party	✓	✓	✓			
Local Media	✓		✓		✓	

6.3 Analysis of Community Attitudes and Perceptions

The analysis and characterisation of community attitudes and perceptions have been based on a review of secondary data sources provided by Union Fenosa Wind Australia, relevant media articles and survey results and discussions with the project managers and members of the Corangamite Shire Council. The approach is limited to some degree by the absence of first hand exposure to the consultation activities and direct community interaction. Nonetheless, the available information does allow for the attitudes of the community to be characterised and described.

From the outset of the planning for this development, the project proponent appropriately took steps to engage with government at a local and state level. These discussions were critical in setting the path for the planning and assessment process and formed a key element of the engagement strategy.

A thorough stakeholder identification exercise at the outset of a development identifies stakeholders who will be interested in, and have influence over, a project. The process conducted for the identification of stakeholders was appropriately focused on discussions with elected officials, government authorities and a geographical identification of landowners in the project area. Other stakeholder groups including regional progress and business associations and community groups have also been identified and consulted during the development of the project.

The thorough identification of stakeholders at the outset of a project informs future engagement and communication strategies. Even where effort is invested in identifying and prioritising project stakeholders, it is possible that certain segments of the community and some community groups may feel excluded and may perceive that timely information is not supplied to support informed decision making.

In regard to the proposed Berrybank wind farm development, it has been evident that there have been some concerns in the community about the process used for consultation, particularly about the thoroughness and timing of information and the transparency of the process. There have been concerns expressed that, at the outset of the planning, Union Fenosa Wind Australia did not engage at a whole-of-community level and restricted its engagement activities to confidential, individual discussions with potential host land owners. This approach has led to perceptions of marginalisation and to feelings of suspicion and angst in some sections of the community. The

allegations of confidential, individual discussions with land owners have also fuelled concerns from non-host land owners that some neighbours and fellow community members have not approached this issue in a genuine and transparent manner. As described in section 6.1.2 Landowners and community, many of the initial discussions held with landowners are commercial in confidence and the confidential nature of these discussions influences the degree to which the project proponent can engage at a whole-of-community level. Regardless of whether these allegations have merit or are unfounded, the perceptions themselves influence community attitudes.

A public meeting arranged by members of the community has, to some degree, impacted on community feeling in some sectors of the community. The meeting at the Berrybank Town Hall was arranged by some members of the community following the Union Fenosa Wind Australia community information day in November 2008.

Union Fenosa Wind Australia representatives were in Berrybank on Saturday 22 November 2008 to facilitate the community information day and to discuss the project and hear community views in an open forum. Following this information day, on Monday 24 November 2008 Union Fenosa Wind Australia received an email notification of the public meeting to be held on Wednesday 26 November 2008. Union Fenosa Wind Australia responded to the invitation and advised that due to the short notice company representatives would be unable to attend, however information from the information day was provided to the meeting organisers and Union Fenosa Wind Australia requested that the information be made available at the meeting.

Notwithstanding the short notice and subsequent inability of company representatives from Sydney to attend the meeting, Union Fenosa Wind Australia were concerned that the meeting would not be an appropriate and balanced forum through which to provide project information and to listen and respond to community views. It was, and remains, the view of Union Fenosa Wind Australia that the community information day and door-knock consultation process were more productive forums through which to engage with the community. Regardless of the circumstances behind the public meeting, it is apparent that this event has influenced the attitudes of some members of the community.

The community information day in November 2008 and the door knock consultation process has strengthened the process and provided direct opportunities for residents to obtain information and discuss matters with the project team on an individual basis. The community information day was publicised in advance through a number of media including direct contact with residents in close proximity to the proposed development. The estimated attendance of 50 people at the information day suggests a reasonable level of engagement with the community. The subsequent door knock process again strengthened this local and direct approach and indicated a willingness to engage directly with turbine host and non-host landowners.

As demonstrated by the door knock survey results described in section 6.2.3 Program of farm and home visits, the community views of wind farm developments are very divided. The number of residents that were concerned with wind farms (17) equalled the number of respondents who supported wind farms. Seven respondents remained neutral on the issue.

The proposed development has been a polarising issue and the community has, in some parts, been split into two camps with very opposing views. Within those two camps, the views seem very united. Those that oppose wind farm developments do so with consistent themes of opposition and concerns about risks and impacts (see section 7 Identification of Potential Social Issues).

Those that support the developments point to similarly consistent themes of economic generation, job creation and the strong case for development of renewable energy sources.

This community division is seen in many wind farm developments. Similar concerns about community division, lack of trust and breakdown in relationships was described in the Social, Economic and Tourism Impact Assessment for the Proposed Wind Farm Project at Bald Hills (Offor Sharp, 2003). The Bald Hills assessment made reference to a local newspaper report that claimed “the previously close-knit Tarwin Valley community is starting to tear itself apart” (Offor Sharp, 2003).

As can be seen in many development projects, the strength of community sentiment – for or against – is related to the proximity to the development and the extent to which it will have a tangible impact for these communities. The door knock process was restricted to an area within 3 km from the wind farm development and did not obtain survey results for areas further away from the development. In this wider community, it is possible that views on wind farm developments may be influenced more by issues such as regional benefits and desirability of renewable energy development, rather than by the potential for impacts to arise in the immediate project area. It is noted that community representatives of towns in the surrounding district, including Cressy and Lismore have indicated their support and enthusiasm for the wind farm development, including the Lismore Chamber of Commerce.

6.4 Recommendations for Future Consultation Activities

Having completed a desk-top review of the consultation program conducted to support the proposed Berrybank wind farm development it is evident that there were initial concerns within the community at the transparency and thoroughness of the process. Concerns have principally related to the timely provision of information to support informed decision making. Recent activities to engage the community has had some success in alleviating these concerns and this positive momentum needs to be harnessed and built upon.

To support the further development of the proposed Berrybank wind farm, it is recommended that an extensive community engagement strategy be developed and implemented. The engagement strategy would be a critical element in understanding and managing community and stakeholder expectations of the project. The strategy should be devised using best practice approaches to outrage management aimed at dispelling myths and addressing negative perceptions based on misinformation and fear.

A planned and well executed engagement strategy would assist in ensuring there is informed decision-making and that wind farm advocates exist in the community and they are empowered to advocate the merits of the development. The engagement strategy would explain the project milestones, activities, benefits, impacts, land and road access disruption and impact mitigation strategies.

It is also recommended that a consultation register, grievance mechanism and issue / resolution tracking mechanism be formalised and maintained, building on the existing email and telephone contact system utilised by Union Fenosa Wind Australia. These mechanisms would ensure that issues and grievances are recorded, followed up and reported back to the complainant with an explanation of how the matter has been closed out. As part of the communication and engagement campaign, it will be critical to ensure that the process for lodging grievances is known to the community.

Box 6.1 Future Consultation Activities : Recommendations

1. Develop and implement a coordinated and transparent communication and engagement strategy to assist in ensuring there is informed decision making and that wind farm advocates are created within the community. The strategy would explain the project milestones, activities, benefits, impacts, land and road access disruption and impact mitigation strategies.
2. Formalise, maintain and promote a consultation register, grievance mechanism and issue / resolution tracking mechanism that ensures issues and grievances are recorded, followed up and reported back to the complainant with explanation of how the matter has been closed out.

7. IDENTIFICATION OF POTENTIAL SOCIAL ISSUES

This section describes the range of issues raised by the community and other stakeholder groups during the course of the consultation program. The section also discusses additional potential social issues generally associated with wind farm developments, and presents these issues to complement the matters raised by the Berrybank community. These potential issues have been identified through an analysis of the community responses during the consultation program, a literature review of similar renewable energy projects and discussions with project managers and representatives of the Corangamite Shire Council.

The scope of this report is to identify the potential social issues of relevance to the Berrybank community. The scope of the report does not extend to an assessment of these potential impacts or the identification of mitigation measures. Despite this limitation in scope, this section and Section 8 Recommendations for future activities outline potential areas of future study and activities that Union Fenosa Wind Australia may wish to progress in consultation with local government and the community.

7.1 Local employment opportunities

Sections 4.2.1.1 Employment and 5.2.1 Employment policy objectives described the potential opportunities for employment as a result of the proposed Berrybank wind farm development. The presence of the significant development project in Berrybank and surrounding districts will create direct and in-direct employment opportunities. These positive impacts will be particularly noticeable during the construction phase when it is estimated that 240 jobs will be created.

It is evident from the community consultation program and the door knock survey results that there is a strong community expectation regarding local employment opportunities. This regional expectation was reinforced in discussions with local government which has a strong desire to maximise local opportunities and to ensure that wherever practicable, jobs are provided to local people seeking employment on the project.

From the community's perspective, the local employment opportunities are one of the clearest benefits from the development and should be maximised. It is evident that some parts of the community are prepared to accept some of the perceived negative impacts as a trade off for employment opportunities.

Union Fenosa Wind Australia has indicated its intention to establish an 'employ locally' policy for preferentially sourcing labour from the local community and region wherever practicable based on skills, experience and reasonable provision of training. It is recommended that this policy be developed with some urgency, clearly articulating the first, second, third and subsequent priority areas for employment. It is recommended that the policy be developed in consultation with the local community and be promoted (for example, on the project website) once it has been signed-off.

In addition, it is recommended that tender documents and contractual obligations on the construction contractors incorporate this policy position.

It is further recommended that Union Fenosa Wind Australia and/or contractor(s) provide to the Corangamite and Golden Plains Council a detailed inventory of employment requirements during construction and operations. This information should also be made publicly available to enable interested local persons time to prepare and possibly even upskill in the event they are keen to pursue employment with the development.

Union Fenosa Wind Australia should also consider the completion of a detailed skills and employment audit within the region to determine the availability of potential future employees.

Box 7.1 Local Employment Opportunities: Recommendations

1. Establish an 'employ locally' policy for preferentially sourcing labour from the local community and region wherever practicable based on skills, experience and reasonable provision of training. The policy should be developed with some urgency, clearly articulating the first, second, third and subsequent priority areas for employment. It is recommended that the policy be developed in consultation with the local community and be promoted (for example, on the project website) once it has been signed-off.
2. It is recommended that tender documents and contractual obligations on the construction contractor/s incorporate the 'employ locally' policy position.
3. Union Fenosa Wind Australia and/or contractor(s) should provide to the Corangamite and Golden Plains Council a detailed inventory of employment requirements during construction and operations. This information should also be made publicly available to enable interested local persons time to prepare and possibly even upskill in the event they are keen to pursue employment with the development.
4. Union Fenosa Wind Australia should also consider the completion of a detailed skills and employment audit within the region to determine the availability of potential future employees.

7.2 Local business opportunities

Sections 4.2 Economic Impacts and 5.3.2 Economic Development Policy Objectives described the potential opportunities for businesses in Berrybank and the broader region to take advantage of the proposed development.

The construction phase will require the supply of large quantities of materials, much of which is expected to be sourced locally from towns within the region. The provision of goods and services to the project is likely to arise in areas including trade services, the supply of hardware for construction and maintenance, temporary and permanent fencing and associated supplies, occupational health and safety and personal protective equipment, transport (freight and people-moving), building and office support services and maintenance, waste disposal, professional consultants and possibly services to support a workforce accommodation camp if the project elects to establish one. These procurement opportunities are likely to result in local business growth creating secondary economic activity within the broader community.

The flow-on workforce (supplying goods and services to the project) can also create secondary general economic activity in the broader community, further increasing labour demand. Depending on the structure of the construction contracts established by Union Fenosa Wind Australia, there may be an opportunity for local and regional businesses to be awarded contracts for goods or services either on an individual basis, or as a collective business cooperative.

There is a strong community expectation that the proposed Berrybank wind farm will stimulate the regional economy and provide opportunities for local businesses. These expectations were evident in the door knock surveys in which some residents expressed a strong desire to be involved in directly supporting the project and the construction workforce in areas such as hospitality and accommodation services.

The desire to maximise local economic development is a key issue for local government which is seeking a strong commitment to local business development and 'buying local'. The Corangamite Shire has commenced programs to build the capacity and skills of local businesses to better position them to win contracts and procurement opportunities. Local government sees this project and similar developments as a critical part of stimulating the regional economy and reinvigorating regional towns with declining and ageing populations such as Lismore.

Union Fenosa Wind Australia has indicated its intention to establish a 'buy locally' policy for preferentially sourcing goods and services locally wherever practicable, based on local capacity, ability to supply, quality and cost competitiveness. It is recommended that this policy be developed with some urgency, clearly articulating the first, second, third and subsequent priority areas for project procurement requirements that have some likelihood of being sourced from nearby the project location. It is recommended the policy be developed in consultation with the local community and be promoted (for example, on the project website) once it has been signed-off.

In addition, it is recommended that tender documents and contractual obligations on the construction contractors incorporate this policy position.

It is further recommended that Union Fenosa Wind Australia provide to the Corangamite and Golden Plains Council, and make publicly available, a detailed inventory of construction activities, labour requirements, services, materials and other procurement requirements associated with the project. The early supply of this information will assist in further development and delivery of strategies to build the capacity of local businesses to compete for construction related sub-contracts and establish themselves in the project supply chain.

Consideration should be given to a collaborative approach involving Union Fenosa Wind Australia, Shire Councils, regional development boards and relevant chambers of commerce to implement local business assistance programs. Such assistance programs could include a series of forums to enhance small business knowledge and capacity in the areas of small business systems and structures, quality assurance, potential for the forming of local and regional business cooperatives and sourcing financial assistance for increased business capability. Collectively, these assistance programs could increase the likelihood of local businesses competing for goods and services contracts and thus receiving direct project benefits through the supply chain. If these programs were successfully implemented, there would be mutual benefits for the project and the construction contractor associated with a consistent, high quality supply of goods and services sourced from nearby the project location.

It is understood that Union Fenosa Wind Australia has commenced discussions with Darren Cheeseman MP, Federal Member for Corangamite who has expressed a strong willingness to help assisting in convening a forum that could be used to commence the development of assistance programs such as those described in the preceding paragraph.

Box 7.2 Local Business Opportunities: Recommendations

1. Union Fenosa Wind Australia establish a 'buy locally' policy for preferentially sourcing goods and services locally wherever practicable, based on local capacity, ability to supply, quality and cost competitiveness. The policy should be developed with some urgency, clearly articulating the first, second, third and subsequent priority areas for project procurement requirements that have some likelihood of being sourced from nearby the project location. It is recommended that the policy be developed in consultation with the local community and be promoted (for example, on the project website) once it has been signed-off.
2. It is recommended that tender documents and contractual obligations on the construction contractor/s incorporate the 'buy locally' policy position.
3. It is recommended that Union Fenosa Wind Australia provide to the Corangamite and Golden Plains Council, and make publicly available, a detailed inventory of construction activities, labour requirements, services, materials and other procurement requirements associated with the project.
4. Union Fenosa Wind Australia should consider a collaborative approach involving Shire Councils, regional development boards and relevant chambers of commerce to implement local business assistance programs.

7.3 Social cohesion

As described in Section 6.3 Analysis of Community Attitudes and Perceptions the proposed development is thought to have contributed to some social tension within the community. At one level, the tension and divisions in the community are on the basis of who hosts turbines and receives the rental payments for use of their land. Landowners with turbines on their land receive a financial gain as a result of the wind farm's presence. Landowners with properties adjacent to the land on which turbines are hosted do not receive rental payments but are potentially impacted by some of the project impacts to a similar degree as landowners who are financially compensated for the use of their land.

This situation can lead to some degree of jealousy, resentment and feelings of inequity amongst those who do not receive the direct benefits. Non-host landowners on adjacent properties receive only the broader, less tangible regional benefits whilst having to directly cope with the real or perceived impacts of the development. This is typical of many wind farm projects.

The proposed development has not been an issue which sees the majority of the community unite against a single, external factor. In such cases, a community can be strengthened through a collective resolve to take a stand against a given issue. Whilst within each of the 'opposing camps' bonds may have been strengthened through the sharing of values and goals, there is an impact evident at the whole-of-community level.

There are perceptions within the community that some people have been secretive and trust has been lost. The potential for short or longer term breakdown in relationships and increased tensions can have flow on effects in small communities. These feelings have the potential to impact on the cohesion and harmony of local sporting clubs, community associations and volunteer groups which rely on the cooperation of members of the community.

Another potential impact on the cohesion of the local community is the influence of a construction workforce, if the majority of the personnel are sourced from outside of the region. The short-term change in demographics, income and expenditure patterns can impact the broader community.

The presence of a relatively high income earning work force in non-traditional farming activities, altered population demographics and community dynamic can impact a community's character

and stability. Such observed changes can be heightened if the population movements are associated with the employment of 'outsiders' who are not familiar with the rural and regional way of life.

The potential impacts that can arise as a result of these changes in social structures include:

- Increase in tension within communities.
- A perceived or real loss of security and potential increases in crime and other forms of unsocial behaviour.
- Social isolation (for either new community entrants, or the incumbent community).
- Loss of community belonging and cohesion.

Across its Australian and international projects, Union Fenosa Wind Australia has indicated a commitment to becoming a long-term community partner in the regions in which it operates. To address a number of the current concerns within the community and threats to social cohesion, consideration should be given to the development of a formal approach to community investment programs and partnerships which provide sustainable benefits to the community of Berrybank and surrounding districts. A transparent process should be established to set annual funding priorities in consultation with an appointed community reference panel. Consideration should be given to funding projects related to buildings of historic significance to the township, community facility upgrades, sporting club and community group sponsorships, CFA and other volunteer groups, as determined by the community reference panel in accordance with the established criteria.

To address potential concerns with the arrival of a construction workforce, Union Fenosa Wind Australia in collaboration with the successful construction contractors should establish a code of conduct for construction contractor staff through the construction contracts. A contractual obligation should be established to require that appropriate standards of behaviour and conduct be a condition of contractor employment, and that the contract establishes appropriate sanctions for breaches.

Box 7.3 Social Cohesion: Recommendations

1. Develop a formal approach to community investment programs and partnerships which provide sustainable benefits to the community of Berrybank and surrounding districts. A transparent process should be established to set annual funding priorities in consultation with an appointed community reference panel.
2. Establish a code of conduct for construction contractor staff through the construction contracts in consultation with the construction contractor/s.

7.4 Visual impacts

The impact of wind farms on the visual amenity of a region is invariably an issue raised during the consideration of these developments. The presence of significant numbers of large turbines in rural settings unquestionably alters the landscape and can impact the intangible value individuals and communities place on their land and their sense of place.

Where landowners have a strong and historical connection to the land and place great value on the rural landscape, the potential for this vista to be altered by the presence of wind turbines can be a significant and uninvited change. Similar impacts can be experienced by people with less

historical ties to the land and who have moved into a rural area for lifestyle reasons (a 'tree change').

It is evident from the consultation program, particularly through the door knock consultation process, that the visual impacts associated with the proposed Berrybank wind farm development are of significant concern to some segments of the community. Seventeen survey respondents indicated general opposition to wind farms and 17 respondents indicated concerns with potential visual impacts.

Opponents of wind farms advance the view that the turbines detract from the value of the rural landscape and constitute an unwanted industrialisation of rural areas. This is a consistent theme of opposition in all wind farm developments. As described in Section 7.3 Social Cohesion, developments of this nature can create social tension between turbine host and non-host landowners. In regard to the visual impacts, there is a particular sense of angst and heightened concern for those that live near the turbines, but do not host them. These residents can experience the same, or greater, impact on visual amenity yet they receive no financial recompense to offset this impact.

Other wind farm developments have faced particularly vocal opposition in areas of 'iconic' tourist attractions and coastal locations. In regard to the proposed Berrybank wind farm there are no tourist attractions that would generally be considered to be iconic and the inland location will not detract from coastal views or the value of the Great Ocean Road and other important areas of the Victorian coastline.

As a counter point to these negative perceptions of the visual impact of wind farms, there are segments of the community that view wind farms positively from a visual, technological and engineering perspective, and also as an embodiment of a move to renewable energy. In the early development of wind farms there was a certain 'novelty value' associated with wind turbines however this effect is lessening as the developments become more frequent.

As has been the case in this proposed development, the potential impacts on visual amenity should be a key consideration in selecting turbine sites. These matters are being appropriately considered through impact assessments prepared for the planning application and review by regulators.

Union Fenosa Wind Australia, in consultation with the Shire Councils, may wish to consider the erection of appropriately placed road-side signs in the areas bordering the wind farm. The signs should emphasise the benefits of renewable energy and the positive environmental impacts associated with wind farms. This communication method can be successful in influencing people's views of wind farm developments and may offset concerns regarding the impact on the rural landscape.

Union Fenosa Wind Australia may also wish to capitalise on the interest in renewable energy and wind farms and discuss with the Shire Councils the possibility of establishing a presence at an existing regional visitor centre. The presence of an information centre would allow Union Fenosa Wind Australia to effectively communicate the benefits and merits of wind farm developments. Wind farm tours could also be considered. It is possible that funds raised from a gold coin donation scheme associated with the wind farm tours could be directed to community development programs and community groups such as the local CFA.

Box 7.4 Visual impacts: Recommendations

1. Consider the erection of appropriately placed road-side signs in the areas bordering the wind farm in consultation with the Shire Councils to emphasise the benefits of renewable energy and the positive environmental impacts associated with wind farms.
2. Consider options for establishing a presence at an existing visitor information centre and conducting wind farm tours to effectively communicate the benefits and merits of wind farm developments.

7.5 Noise and shadow flicker

The noise associated with wind farms is invariably an issue raised during the consideration of these developments. The presence of large industrial machinery with constantly moving components in rural settings can alter the intangible value individuals and communities place on their land and their sense of place. Historically, turbine design has been such that noise emissions were of greater concern than they are currently with technological advances substantially reducing the noise from an operating wind farm. Despite these advances, the impact from noise is a consistent theme of opposition to wind farm developments.

Concerns associated with shadow flicker have also been advanced by opponents of wind farms. Shadow flicker effects are seen at certain times of the day in certain weather conditions and are often cited as a key area of concern for residents adjacent to turbines.

It is evident from the consultation program, particularly through the door knock consultation process, that the noise and shadow flicker impacts associated with the proposed Berrybank wind farm development are of significant concern to some segments of the community. Seventeen survey respondents indicated general opposition to wind farms. Seventeen respondents indicated concerns with potential noise impacts and 16 respondents indicated concerns with potential shadow flicker impacts. These matters are being appropriately considered through impact assessments prepared for the planning application and review by regulators.

Union Fenosa Wind Australia may wish to give consideration to producing a video highlighting the benefits of wind farms from an environmental and economic perspective. Such a video may involve local residents from previous developments in which the company has been involved and subject matter experts advocating the benefits of wind farms. In advocating for wind farms, it would be compelling for residents to describe how previously held concerns and negative perceptions have not arisen. The availability of such a video on the internet would assist in providing informed public debate and balancing the negative views being expressed by wind farm opponents.

Box 7.5 Noise and Shadow Flicker: Recommendation

1. Consider producing a video to highlight positive perceptions of wind farms and advocate the economic and environmental benefits of these developments, and make this video available on the internet.

7.6 Land values

As described in Section 4.2.2.2 Changes to Land Value, there is considerable debate about the impacts that wind farms have on land value. The Australian and international experience and evidence is variable and inconclusive. The impact that wind farms have on property and land value in the United States was researched Sterzinger et al in 2003. This analysis compared changes in property prices before and after the installation of turbines in the viewing shed with

comparable surrounding regions. Sterzinger et al concluded that “the statistical evidence does not support a contention that property values within the view shed of wind developments suffer or perform poorer than in a comparable region” (Sterzinger, 2003).

The Australian experience with wind farms projects is varied and there is a lack of definitive evidence of a correlation between wind farm developments and property value. Whilst the long term impact of wind farms is debatable, the uncertainty of the visual, noise and other impacts can impact in the short term in the planning and construction phases. The experience in developments such as the Albany and Salmon Beach wind farms is that once these uncertainties are removed, the presence of wind farms does not have a discernable impact on property value (Offor Sharp and Associates, 2003).

During the consultation program, particularly through the door knock consultation process, the potential for impacts on land and property value was identified as an area of concern, although it was not a dominant theme in the survey outcomes. When prompted to describe their level of concern about land value impacts, 12 respondents indicated that they were concerned. This rate of concern from survey respondents was lower than the other four impact areas assessed in the survey. This response was also lower than the rate of concern expressed about fauna impacts and buffer zones when respondents were asked about other concerns.

7.7 Land Use

The presence of approximately 100 wind turbines in the project area will alter the rural landscape and the existing land use, particularly during construction. Turbines consist of a number of components including a tubular steel tower approximately 4 m in diameter at the base and a reinforced concrete slab foundation, typically 17 m x 17 m x 2.0 – 3.0 m in depth (Tract Consultants, 2009). The impacts on land use will be more pronounced during construction, and once operational the total land take associated with the wind turbines is less than 1%, so the impact on land use is limited.

7.8 Fauna impacts

The potential for negative impacts on fauna in the vicinity of the wind farm development has been raised as a community concern during the consultation process. In the door knock consultation process, the impact on fauna was a frequent theme of response in the open question about additional impacts not prompted by the survey. Fifteen respondents indicated concern about the impact on species such as broilgas and wedge tail eagles.

During the consultation activities with government stakeholders a number of agencies indicated concern regarding the declared vulnerable species of broilgas. Government stakeholders emphasised the need to consider and manage these impacts and to locate turbines away from know nesting areas and regular flight routes.

These matters are being appropriately considered through impact assessments prepared for the planning application and review by regulators.

7.9 Bushfire hazards and fire management

Bushfires have historically been a significant issue of concern in regional Victoria generally and in the Berrybank district. These concerns were brought into sharp and tragic focus in February 2009 with the Victorian bushfires. Concerns have been raised that the proposed Berrybank wind farm development, and similar rural developments, can heighten bushfire risks. One risk factor advanced by opponents of wind farm developments is that the turbines can attract lightning strikes creating a potential ignition source.

Additional concerns have been raised that the location of turbines can threaten fire management activities. Fire vehicles can experience difficulty in accessing raised bed cropping areas, such as where the turbines will be located. The presence of the turbines can also impact flight paths for fire planes providing a further barrier to effective fire management.

These potential impacts have been raised by the community during the consultation process. In the door knock consultation process, 16 respondents expressed concern about these risks. It is possible that there may have been a further shift in community views and heightened sensitivity about these dangers as a result of the February 2009 Victorian bush fire tragedy. These matters are being appropriately considered through impact assessments prepared for the planning application and review by regulators.

It is recommended that Union Fenosa Wind Australia establish and maintain dialogue with the Lismore Group Country Fire Authority (CFA) (nearest CFA to the proposed development) and local CFA officers in Berrybank. Consultation should be conducted to establish how CFA requirements and fire management plans can be considered in project design and execution. Through this dialogue, Union Fenosa Wind Australia should identify opportunities to support appropriate training and/or equipment purchase to assist in up skilling volunteer fire fighters to fight fires in an altered rural landscape with wind turbines.

Union Fenosa Wind Australia, in consultation with the CFA and the construction contractor, should establish policies and management systems to incorporate bush fire risk minimisation strategies and to establish how fire bans will be considered in the scheduling and conduct of construction activities.

Box 7.6 Bushfire hazards and fire management: Recommendations

1. Establish and maintain dialogue with the Lismore Group Country Fire Authority and local CFA officers in Berrybank to determine how CFA requirements and fire management plans can be considered in project design and execution.
2. Identify opportunities to support appropriate training and/or equipment purchase to assist in up skilling volunteer fire fighters to fight fires in an altered rural landscape with wind turbines.
3. Establish policies and management systems to incorporate bush fire risk minimisation strategies and to establish how fire bans will be considered in the scheduling and conduct of construction activities in consultation with the CFA and the construction contractor/s.

7.10 Construction workforce accommodation requirements

As described in Section 4.2.1.1 Employment, in the order of 240 jobs are expected to be created in constructing the proposed Berrybank wind farm development. Currently, there is no breakdown of skill and trade requirements and an audit to assess local community's capacity to obtain these jobs has not been undertaken. This will be undertaken once there is greater planning certainty.

Notwithstanding commitments to employ locally wherever practicable, there will be some need to source labour external to the region. The accommodation requirements and arrangements therefore become a key consideration for the project and for the community. Currently, no decision has been taken on whether to establish a construction accommodation camp or whether existing or alternative sources of temporary accommodation will be sourced.

During the consultation process, Council has raised some concerns with the workforce accommodation issues and emphasised the need to make and communicate decisions early in the project. Council concerns include the potential impacts on housing availability and affordability and the impact this would have on the local community already housed in rental accommodation, or seeking it. Officers of the Corangamite Shire Council cited examples of similar projects in regional Victoria in which a large scale development project artificially inflated rental prices to historically and unsustainably high levels and reduced the availability of rental accommodation.

An additional consideration is the location of the workforce accommodation, particularly if an accommodation camp or cluster of temporary housing is pursued. Officers of the Corangamite Council emphasised the importance of maximising regional economic development opportunities by locating the workforce in an area that allows integration into the community and the ready opportunity to expend wages in the community. The location of the workforce should also have regard for the existing capacity and availability of social and physical infrastructure so that the additional population does not adversely impact services and infrastructure relied upon by the local community. It is understood that business operators in Lismore have expressed interest in accommodating workers in that town.

During the door knock consultation process, some respondents enthusiastically identified positive impacts of an incoming workforce. It was clear that some survey respondents wanted to take advantage of the workforce's arrival and provide a range of goods and services.

It is recommended that a specific study be conducted in collaboration with the Council Shires to investigate possible impacts from a construction workforce requiring accommodation. This study should be commissioned as soon possible so that the study findings can inform the project's decisions on the preferred approach to accommodation. The early and ongoing involvement of the Council Shires in this study would allow for the appropriate consideration of social planning activities and development of mitigation strategies.

Box 7.7 Construction workforce accommodation requirements: Recommendation

1. Commission a specific study in collaboration with the Council Shires to investigate possible impacts from a construction workforce requiring accommodation, and that the findings of this study inform the project's decisions on the preferred approach to accommodation.

7.11 Cumulative Impacts

As detailed in Section 3.3.1 Regional Economic Profile, the Corangamite Shire is home to a range of large scale energy projects. The impact of these concurrent projects and future wind farm developments needs to be considered on a cumulative basis as the presence of multiple projects can have a greater impact on areas such as workforce availability and the capacity of social services, public utilities, accommodation and retail services to accommodate the requirements of a project. The scope of this report does not extend to a consideration of cumulative impacts.

Union Fenosa Wind Australia should work with the relevant Shire Councils to ensure that cumulative impacts arising from concurrent development projects are understood and considered in project planning and strategy. The wind energy forum being contemplated in collaboration with Darren Cheeseman MP would be a good opportunity to discuss these issues in a collaborative manner.

8. RECOMMENDATIONS FOR FUTURE ACTIVITIES

The scope of this socio-economic characterisation is to identify the potential social issues of relevance to the Berrybank community. The scope of the report does not extend to an assessment of these potential impacts or the identification of mitigation measures. It is, however, recommended that Union Fenosa Wind Australia progress a number of recommendations and future activities in consultation with local government and the community. These recommendations are summarised within this section.

- Implement a coordinated and transparent communication and engagement strategy throughout the planning process and during construction and operations to assist in ensuring there is informed decision making and that wind farm advocates are created within the community. The strategy would explain the project milestones, activities, benefits, impacts, land and road access disruption and impact mitigation strategies.
- Formalise, maintain and promote a consultation register, grievance mechanism and issue / resolution tracking mechanism that ensures issues and grievances are recorded, followed up and reported back to the complainant with explanation of how the matter has been closed out. This formal process would build on the email and telephone inquiry lines utilised by Union Fenosa Wind Australia. As part of the communication and engagement campaign, it will be critical to ensure that the process for lodging grievances is known to the community.
- Union Fenosa Wind Australia should establish an 'employ locally' policy for preferentially sourcing labour from the local community and region wherever practicable based on skills, experience and reasonable provision of training. The policy should be developed with some urgency, clearly articulating the first, second, third and subsequent priority areas for employment. It is recommended that the policy be developed in consultation with the local community and be promoted (for example, on the project website) once it has been signed-off.
- It is recommended that tender documents and contractual obligations on the construction contractor/s incorporate the 'employ locally' policy position.
- Union Fenosa Wind Australia and/or contractor(s) provide to the Corangamite and Golden Plains Council a detailed inventory of employment requirements during construction and operations. This information should also be made publicly available to enable interested local persons time to prepare and possibly even upskill in the event they are keen to pursue employment with the development.
- Union Fenosa Wind Australia should also consider the completion of a detailed skills and employment audit within the region to determine the availability of potential future employees.
- Union Fenosa Wind Australia should establish a 'buy locally' policy for preferentially sourcing goods and services locally wherever practicable, based on local capacity, ability to supply, quality and cost competitiveness. The policy should be developed with some urgency, clearly articulating the first, second, third and subsequent priority areas for project procurement requirements that have some likelihood of being sourced from nearby the project location. It is recommended that the policy be developed in consultation with the local community and be promoted (for example, on the project website) once it has been signed-off.
- It is recommended that tender documents and contractual obligations on the construction contractor/s incorporate the 'buy locally' policy position.

- It is recommended that Union Fenosa Wind Australia provide to the Corangamite and Golden Plains Council, and make publicly available, a detailed inventory of construction activities, labour requirements, services, materials and other procurement requirements associated with the project.
- Union Fenosa Wind Australia should consider a collaborative approach involving Shire Councils, regional development boards and relevant chambers of commerce to implement local business assistance programs.
- Develop a formal approach to community investment programs and partnerships which provide sustainable benefits to the community of Berrybank and surrounding districts. A transparent process should be established to set annual funding priorities in consultation with an appointed community reference panel.
- Establish a code of conduct for construction contractor staff through the construction contracts in consultation with the construction contractor/s.
- Consider the erection of appropriately placed road-side signs in the areas bordering the wind farm in consultation with the Shire Councils to emphasise the benefits of renewable energy and the positive environmental impacts associated with wind farms.
- Consider options for a establishing a presence at an existing visitor information centre and conducting wind farm tours to effectively communicate the benefits and merits of wind farm developments.
- Consider producing a video to highlight positive perceptions of wind farms and advocate the economic and environmental benefits of these developments, and make this video available on the internet.
- Establish and maintain dialogue with the Lismore Group Country Fire Authority and local CFA officers in Berrybank to determine how CFA requirements and fire management plans can be considered in project design and execution.
- Identify opportunities to support appropriate training and/or equipment purchase to assist in up skilling volunteer fire fighters to fight fires in an altered rural landscape with wind turbines.
- Establish policies and management systems to incorporate bush fire risk minimisation strategies and to establish how fire bans will be considered in the scheduling and conduct of construction activities in consultation with the CFA and the construction contractor/s.
- Establish a dialogue with the Shire Councils to consider the potential impacts on social and physical infrastructure and services as a result of population changes within the region associated with the construction and operation of the proposed wind farm development.
- Commission a specific study in collaboration with the Council Shires to investigate possible impacts from a construction workforce requiring accommodation, and that the findings of this study inform the project's decisions on the preferred approach to accommodation.

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